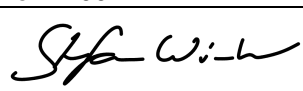




**Verification and certification report form for
CDM project activities
(Version 03.0)**

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 19/20 – 19/113
Scale of the project activity	<input checked="" type="checkbox"/> Large-scale <input type="checkbox"/> Small-scale
Version number of the verification and certification report	1.1
Completion date of the verification and certification report	28/03/2020
Monitoring period number and duration of this monitoring period	Monitoring Period: 3 Duration: 01/01/2019 – 31/01/2020 (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
Project participants	KUB-Berjaya Enviro Sdn. Bhd. (KBE) ACT Commodities B.V. BP Gas Marketing Limited.
Host Party	Malaysia
Applied methodologies and standardized baselines	ACM0001 version 18.0 – “Flaring or use of landfill gas”
Mandatory sectoral scopes	Scope: 13 / Technical Area: 13.1
Conditional sectoral scopes, if applicable	N/A
Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD	299,732 tCO ₂ e
Certified amount of GHG emission reductions or GHG removals for this monitoring period	162,420 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	Stefan Winter Final Approver 

SECTION A. Executive summary

KUB-Berjaya Enviro Sdn. Bhd has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 3rd periodic verification of the second crediting period (CPII) 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 01/01/2019 – 31/01/2020 (including both days).

The project activity was 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	-	Fairlyland Environmental Technology, China		
No. of units		1		
Gas Flow Capacity	Nm³/h	Maximum – 2,500		
Retention Time	second	>0.3 at 800-1,000°C		
Gas Blower	-	Twin-lobe root blower		
Gas Analyser	-	For CH₄ and O₂		
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	1.2	1.56	2
Voltage	KV	11	0.415	11
Number of genset	unit	1	2	1
Total elec. Output	MW	1.2	3.12	2

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 3rd 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: **162,420 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/document review	On-site inspection	Interviews	Verification findings
1.	Team Leader /	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.	Observer Reviewer	EI	Lubanga	David	-
2.	Technical Reviewer	IR	Winter	Stefan	TÜV NORD CERT GmbH
3.	Approver	IR	Winter	Stefan	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

	Threshold	Related to
		to or more than 500,000 tonnes of carbon dioxide equivalent per year ¹ ;
<input 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;
<input checked="" 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.	Errors of data during transfer from raw to secondary data excel spreadsheet	Medium	Incorrect linkage for data transfer	PP may demonstrate on transfer data and how this is crosschecked

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 type="checkbox"/>	-	<input type="checkbox"/>	Not material
Op _{i,h}	CDC	<input checked="" type="checkbox"/>	CL E.8-01 CAR E.8-07	<input checked="" type="checkbox"/>	Not material
EG _{PJ,y}	CDC	<input checked="" type="checkbox"/>	CL E.8-02 CAR E.8-07	<input checked="" type="checkbox"/>	Not material
EG _{EC,y}	CDC	<input checked="" type="checkbox"/>	CAR E.8-07 CAR E.8-08	<input checked="" type="checkbox"/>	Not material

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

f_y	SPL	<input checked="" type="checkbox"/>	CAR E.8-07	<input checked="" type="checkbox"/>	Not material
$T_{EG,m}$	SPL	<input checked="" type="checkbox"/>	CAR E.8-07	<input checked="" type="checkbox"/>	Not material
Flame _m	CDC	<input type="checkbox"/>	-	<input type="checkbox"/>	Not material
$V_{t,wb}$	SPL	<input checked="" type="checkbox"/>	CAR E.8-07 CAR E.8-12	<input checked="" type="checkbox"/>	Not material
$V_{CH4,m,db}$	SPL	<input checked="" type="checkbox"/>	CAR E.5-01 CAR E.5-02 CAR E.5-03 CAR E.8-07 CAR E.8-12	<input checked="" type="checkbox"/>	Not material
T_t ($T_{TT1,GSSF1}$, $T_{TT1,F2}$, $T_{TT1,GSS1}$, $T_{TT1,GSS2}$)	SPL	<input checked="" type="checkbox"/>	CAR E.7-01 CAR E.8-07	<input checked="" type="checkbox"/>	Not material
P_t ($P_{PT2,F2}$, $P_{PT2,GSS1}$, $P_{PT2,GSS2}$)	SPL	<input checked="" type="checkbox"/>	CAR E.5-01 CAR E.5-02 CAR E.7-01 CAR E.8-07	<input checked="" type="checkbox"/>	Not material
$P_{H2O,t,Sat}$	CDC	<input type="checkbox"/>	-	<input type="checkbox"/>	Not material
$V_{CO2,t,db}$	CDC	<input type="checkbox"/>	-	<input type="checkbox"/>	Not material
$V_{O2,t,db}$	CDC	<input type="checkbox"/>	-	<input type="checkbox"/>	Not material
Status of biogas destruction device	CDC	<input type="checkbox"/>	-	<input type="checkbox"/>	Not material
$FC_{i,j,y}$	CDC	<input type="checkbox"/>	-	<input 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:

NDC:

SPL:

ASP:

COM:

Complete data check of data including all data aggregation steps

Non-complete data check – omissions not material

Sampling approach (all data available)

Acceptance Sampling

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: 04/03/2020 & 05/03/2020				
No.	Activity performed on-site	Site location	Date	Team member

1.	Opening Meeting, MR, Plant Inspection, Equipment, Calibration, Document Review	Bukit Tagar	04/03/2020	Cheong, Chun Yuen (Robert)
2.	Review MR, ER calculations, Reporting and Closing Meeting	Kuala Lumpur	05/03/2020	

D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Mohd Zain	Zainal Fikry	KBE / CDM Manager /IM01/	04/03/2020	Plant Inspection, Calibration reports, MR, Document review	Cheong, Chun Yuen (Robert)
2	Abd Aziz	Mustaffa Kamal	KBE / Electrical Engineer /IM01/			
3.	Chen	Saw Ling	Eco-Ideal / Consultant (IM02/	04/03/2020 05/03/2020	Plant Inspection, Calibration reports, MR, Document review	
4	Azmi	Khairul Azmeer	Eco-Ideal / Consultant /IM02/			
5.	Mohamad	Noraiza Safia	Eco-Ideal / Consultant /IM02/			
6	Yau	Yi Xin	Eco-Ideal / Consultant /IM02/			
7.	Soon	Hun Yang	Eco-Ideal / Consultant /IM02/		Closing Meeting	

D.4. Sampling approach**D.4.1 Sampling during monitoring**

<input type="checkbox"/>	No sampling approach has been used by the PP to determine the monitored parameters				
<input checked="" type="checkbox"/>	A sampling approach has been taken for the following monitored parameter(s):				
	Parameter	Sampling approach ¹⁾	Sampling Type ²⁾	Population	Sample Size
	VCH4,m,db	Refer MR Section D.3			

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

	approach ¹⁾	Type ²⁾		
f_y	SiRS	AS	2,280,960	385
$T_{EG,m}$	SiRS	AS	570,240	384
$V_{t,wb}$	SiRS	AS	2,280,960	385
$V_{CH4,m,db}$	SiRS	AS	2,280,960	385
T_t ($T_{TT1,GSSF1}$, $T_{TT1,F2}$, $T_{TT1,GSS1}$, $T_{TT1,GSS2}$)	SiRS	AS	2,280,960	385
P_t ($P_{PT2,F2}$, $P_{PT2,GSS1}$, $P_{PT2,GSS2}$)	SiRS	AS	2,280,960	385

¹⁾ Sampling Approaches:

SiRS: Simple Random Sampling - <http://www.raosoft.com/samplesize.html> applying 95% CL with 5% margin error

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, 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 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)	2	1	0
Post-registration changes (E.4)	0	0	0
Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines (E.5)	0	3	0
Compliance of monitoring activities with the registered monitoring plan (E.6)	0	0	0
Compliance with the calibration frequency requirements for measuring instruments (E.7)	0	1	0
Assessment of data and calculation of emission reductions or net removals (E.8)	6	6	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	8	11	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</p>
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	<p>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.
	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. It could be concluded the MR is completed according to the MR template requirements.	

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 type="checkbox"/>	N/A – as this is the first monitoring period of CPII for this CDM project activity.
<input checked="" 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-E19/ • /IM01/ • /IM02/ • /unfccc/ 																
Findings	<table border="1"> <tr> <td data-bbox="475 992 539 1070" style="text-align: center;"><input checked="" type="checkbox"/></td><td data-bbox="547 981 1422 1070">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.</td></tr> <tr> <td data-bbox="475 1070 539 1205" style="text-align: center;"><input type="checkbox"/></td><td data-bbox="547 1070 1422 1205">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</td></tr> <tr> <td data-bbox="475 1205 539 1272" style="text-align: center;"><input checked="" type="checkbox"/></td><td data-bbox="547 1205 1422 1272">In this context the following CARs, CLs have been raised: CL E.3-01, CL E.3-02, CAR E.3-03</td></tr> <tr> <td colspan="2" data-bbox="475 1272 1422 1317"><i>In case of phased implementation:</i></td></tr> <tr> <td data-bbox="475 1317 539 1373" style="text-align: center;"><input checked="" type="checkbox"/></td><td data-bbox="547 1317 1422 1373">N/A</td></tr> <tr> <td data-bbox="475 1373 539 1440" style="text-align: center;"><input type="checkbox"/></td><td data-bbox="547 1373 1422 1440">The phased implementation has correctly and in sufficient detail been described in the latest version of the PDD.</td></tr> <tr> <td data-bbox="475 1440 539 1529" style="text-align: center;"><input type="checkbox"/></td><td data-bbox="547 1440 1422 1529">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.</td></tr> <tr> <td data-bbox="475 1529 539 1624" style="text-align: center;"><input type="checkbox"/></td><td data-bbox="547 1529 1422 1624">The project description in the PDD/MR is not deemed sufficient. The detailed implementation timeline is as follows: N/A</td></tr> </table>	<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: CL E.3-01, CL E.3-02, CAR E.3-03	<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
<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: CL E.3-01, CL E.3-02, CAR E.3-03																
<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	<table border="1"> <tr> <td data-bbox="475 1635 539 1713" style="text-align: center;"><input type="checkbox"/></td><td data-bbox="547 1624 1422 1713">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.</td></tr> <tr> <td data-bbox="475 1713 539 1803" style="text-align: center;"><input checked="" type="checkbox"/></td><td data-bbox="547 1713 1422 1803">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.</td></tr> <tr> <td colspan="2" data-bbox="467 1803 1422 1975"> <p>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.</p> </td></tr> </table>	<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.	<p>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.</p>											
<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.																
<p>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.</p>																	

E.4. Post-registration changes**E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents²**

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 TDfrMP 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 TDfrMP 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:	

² Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

<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"/>	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. Changes to the start date of the crediting period

<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.

E.4.5. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents

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: <input type="text"/>
	2	Issue: <input type="text"/>
<input type="checkbox"/>	The following PCfrMP, PCfMM or PCfSB for which appendix 1 of the PS is applicable have been applied:	
	1	Issue: <input type="text"/>
	2	Issue: <input type="text"/>

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 <input type="text"/>
		Status <input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Appr. date <input type="text"/>
		Ref. No. <input type="text"/>
	2	Title <input type="text"/>
		Status <input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Appr. date <input type="text"/>
		Ref. No. <input type="text"/>
<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: <input type="text"/>
	2	Issue: <input type="text"/>
<input type="checkbox"/>	The following CoPD for which appendix 1 of the PS is applicable have been applied:	
	1	Issue: <input type="text"/>
	2	Issue: <input type="text"/>

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 applied methodologies, applied standardized baselines, and other applied methodological regulatory documents

Means of verification	By means of comparison of the MR with (i) the applied CDM methodology
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	<p>(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.</p> <p>The following sources of information have been used in this context:</p> <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:		
	1	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	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	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	
	<input checked="" type="checkbox"/>	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	
Conclusion	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:	
	<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 applied methodology and prescribed applicable tools are consistent with the versions in UNFCCC website. 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 CH ₄	25	tCO ₂ e/tCH 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																		
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	Textile	24																		
	Garden, yard & park waste	20																		
	Glass, plastic, metal, other inert waste	0																		
10	kj	Decay rate for the waste type j	<table border="1"> <thead> <tr> <th colspan="2">Waste type j</th><th>Tropical (MAT>200 C) <u>dry</u> (MAP>1000mm)</th></tr> </thead> <tbody> <tr> <td rowspan="2">Slowly Degrading</td><td>Pulp, paper, cardboard (other than sludge), textile</td><td>0.07</td></tr> <tr> <td>Wood, wood product & straw</td><td>0.035</td></tr> <tr> <td>Moderately Degrading</td><td>Other (non-food) organic putrescible garden & park waste</td><td>0.17</td></tr> <tr> <td>Rapidly Degrading</td><td>Food, food waste, sewerage sludge, beverage & tobacco</td><td>0.40</td></tr> </tbody> </table>		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	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																		
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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	Minimum and maximum operating temperature = 0 to 1,200°C		Temperature - °C															

			for temperature, flow rate and maintenance schedule	Minimum and maximum inlet flow rate = 0 – 2,500 Nm ³ /h	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	7.74	%
	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 _{H₂O}	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 _{CO₂}	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 checked="" 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 type="checkbox"/>	<p>The following deviations from the parameters fixed ex-ante or at renewal of crediting period have been identified in the course of this verification:</p> <p>-</p>			
	<input type="checkbox"/>	<p>In this context the following CARs, CLs, FARs have been raised:</p>			

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 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.

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. 2:</p> <p>According to 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>According to the approved revised PDD version 20.5 total LFG (FT1) captured is combusted at the flare (FT2). The total LFG captured should be equal to LFG flared and LFG combusted for electricity generation.</p> <p>GSS1 (Gas Engine No. 2 and 3), GSS2 (Gas Engine No. 4) and GSSF1 (Gas Engine 1)</p> <p>According to ACM0001, version 8³, 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 accredited entity.</p> <p>The total LFG captured for GSS1, GSS2 and GSSF1 for this monitoring period is the same as the total LFG sent to the GSS1 gas engines 2 & 3, GSS2 gas engine 4 and GSSF1 gas engine 1. The amount of landfill gas generated and captured that is channelled to GSS1, GSS2 and GSSF1 is measured continuously by a flow meter for each system.</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>The raw data spreadsheets were reviewed to confirm no LFG temperature exceeds 60°C that the flow rate is required to re-calculate. Therefore, for this monitoring period, no recalculation required.</p> <p>During this monitoring period, there are delays in calibration for pressure and temperature transmitters. Details of the assessment refer to parameter-wise in Appendix 5 table A-5.</p>
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³ 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.

	The results as well as the verification procedure are described parameter-wise in the project specific verification checklist (Appendix 5 table A-5).	
Findings	<input checked="" type="checkbox"/>	The monitored parameters are in accordance to the registered PDD.
	<input checked="" type="checkbox"/>	The following have been identified in the course of this verification: CL E.8-01, CL E.8-02, CAR E.8-07 and CAR E.8-08
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 type="checkbox"/>	The PPs have not applied sampling approaches for the parameters monitored.		
	<input checked="" type="checkbox"/>	The PPs have applied sampling approaches for the following parameters monitored.		
		1	Parameter:	$V_{CH_4,m,db}$
			Name:	Volumetric fraction of greenhouse gas CH ₄ in minute m on a dry basis
			Description on how the sampling efforts and survey comply with the validated sampling plan:	Details refer to Section D.3 of MR. The sampling is consider conservative and appropriate since the number of samples taken are higher than the applied tool. The calculation is according to the description in the parameter table Source of data.
		2	Parameter:	
		Name:		
		Description on how the sampling efforts and survey comply with the validated sampling plan:		
<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:			

		CAR E.8-09
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.
		Sampling is applied to determine the monitored parameter as describe above. After corrections, it can be concluded the monitored parameter has been measured / determined without material misstatements and in line with all applicable tool, standards and relevant requirements

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 CF27/ • /CF31 to CF38/ • /CF41 to CF46/
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.5-01, CAR E.5-02, CAR E.5-03, CAR E.7-01 and CAR E.8-08,</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 Appendix 6 of this report.

	<p>Based on the details listed in appendix 6 the verification team could confirm that all installed monitoring equipment have been duly calibrated except the power meter owned by the grid operator – TNB which is beyond the control of the project owner.</p> <p>It could be concluded, after due corrections, 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,</p> $BE_{CH_4,y} = (1 - 0.1) \times (1491.34 + 1117.90 + 3536.49 + 516.03 - 0) \times 25$ $BE_{CH_4,y} = 149,874 \text{ tCO}_2\text{e (difference due to the reason that the monthly } F_{CH_4,PJ,y} \text{ values have been rounded down before been summarized)}$ <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 by 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</p>
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	<p>density is continuously monitored by the minute in accordance to the project emissions from flaring version 02.0.0.</p> <p>For this monitoring period, the methane combusted by GE4 is considered in the baseline emission of methane from SWDS although GE 4 is running for a few days. The running hours of GE is verify.</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> $BE_{EC,y} = \sum kEC_{BL,k,y} \times EF_{EL,k,y} \times (1+TDL_{k,y})$ <p>Therefore,</p> $BE_{EC,y} = (15314.62 + 0 + 3585.99) \times 0.7146 \times 1.0774 = 14,541 \text{ tCO}_2\text{e (rounded down)}$ <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 tCO₂/MWh, which was available during the project renewal of CP registration.</p> <p>The average transmission is an ex-ante value of 7.74% from 2017 onwards according to the approved revised PDD.</p> <p>For this monitoring period, electricity generated by GE4 is consider as zero since there is no meter reading from the grid operator meter although the internal meter capture some reading. According to the monitoring procedure describe in PDD version 20.5 where the lower value between internal and external meter is taken for calculation. Since there is no reading from the external meter, zero is applied and this is conservative.</p> <p>From the above baseline emissions equation,</p> $\begin{aligned} BE_y &= BE_{CH_4,y} + BE_{EC,y} + BE_{HG,y} + BE_{NG,y} \\ &= 149,874 + 14,541 + 0 + 0 \\ &= 164,415 \text{ tCO}_2\text{e (after round down to integral)} \end{aligned}$ <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	<div style="display: flex; align-items: center;"> <input data-bbox="483 1865 512 1899" type="checkbox"/> <div style="margin-left: 10px;"> <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> </div> </div>

		No errors, miscalculations, omissions, misstatements or incomplete information has been identified.
	<input checked="" type="checkbox"/>	The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.
	<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: CAR E.8-12
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>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 appropriately so that it can be confirmed that the baseline emissions calculation is overall correct.</p>		

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 from fossil fuel use.</p> <p>Electricity meter EL6 records the grid electricity consumed by Flare 2 system, 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:</p> $PE_y = PE_{EC,y} + PE_{FC,j,y} \quad (\text{Revised equation 22 of ACM0001})$ <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>
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	<p>Therefore, $PE_y = 1,982 + 13$</p> <p>The project emissions for this period is 1,995 tCO_{2e}</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/ • /DML2/ • /O1/
Findings	<input checked="" type="checkbox"/> The calculation of the project emissions was found to be fully compliant with the above stated principles. 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 correctly applied. No errors, miscalculations, omissions, misstatements or incomplete information have been identified.
	<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.
	<p>The calculation of project GHG emissions is consider correct.</p> <p>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</p>

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/
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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> $ER = BE_y - PE_y$ $= 164,415 - 1,995$ $= 162,420 \text{ tCO}_2\text{e}$ <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 checked="" 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 type="checkbox"/>	During the verification, issues with impact on the ER calculation have been identified.
	<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.
		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

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 01/01/2019 to 31/01/2020 (both days included) the project achieved 162,420 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 299,732 tCO₂e.</p> <p>Therefore, the actual emission reduction was 46% lower than the estimated ex-ante emission reductions.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /PDD1/ • /ER1/
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 checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:
		CL E.8-03
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.
		After corrections, 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		<p>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.</p> <p>Ex-ante ERs: 299,732 tCO₂e for 396 days</p> <p>Ex-post ERs: 162,420 tCO₂e for 396 days</p> <p>Difference: 137,312 tCO₂e</p> <p>The comparison is based on 396 days of the monitoring period.</p> <p>Section E.6 of the MR includes the justification for the ex-post ERs are lower than the ex-ante ERs by 46%.</p>
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 checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: CL E.8-03
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 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 reasonable after corrections.	

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 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>162,420</td> <td>162,420</td> </tr> </tbody> </table>				before 01/01/2013	from 01/01/2013	Sum	Emission reductions [tCO_{2e}]	0	162,420
	before 01/01/2013	from 01/01/2013	Sum							
Emission reductions [tCO_{2e}]	0	162,420	162,420							
	<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: CL E.8-03								
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.								
	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 after corrections, 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"/>	Therefore, the DOE has assessed and confirms that: (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”; (b) The reported monitoring results correspond to the sustainable development co-benefits of the project activity as observed by the DOE.
	<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 06/02/2020 to 04/03/2020 (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>Nbr.</th> <th>Original comment received</th> <th>Feedback by the PP</th> <th>Statement by DOE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></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 3rd (MPII) 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 01/01/2019 to 31/01/2020 (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 3rd (MPII) periodic verification, the verifier can confirm 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: **162,420 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.: 3

from: 01/01/2019

to: 31/01/2020

(including both days) as follows:

Emission reductions: **162,420 tCO₂e**

Puchong, 28/03//2020




Cheong, Chun Yuen (Robert)
TÜV NORD JI/CDM CP
Verification Team Leader

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
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 JICDM 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_001-VANOR-F20_2018-03-19_v09.doc



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

Mr. David Lubanga

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2021-10-20
VCS / ISO 14064-2	Senior Assessor Technical Reviewer	2021-10-20

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewables
3.1	Energy demand
13.2	Manure

251 - Rev. 7, Date: 2018-10-19

251_001-VANOR-F20_2018-10-19_v07.doc

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 10.0)	https://cdm.unfccc.int/Reference/Guidclarif/glos_CD_M.pdf	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

No.	Author	Reference	Title	References to the document	Provider
6	UNFCCC	/KP/	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 7.0	https://cdm.unfccc.int/Reference/PDDs_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 2.0.0	http://cdm.unfccc.int/DNA/Reference/tools/index.html	Other
13	UNFCCC	/TPL/	Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion” Version 02.0.0	http://cdm.unfccc.int/DNA/Reference/tools/index.html	Other
14	UNFCCC	/PLEC/	Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation” Version 02.0.0	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 3.0.0	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
19	PP	/MR/	Monitoring Report version 1.0 dated 04/02/2020 Monitoring Report version 1.1 dated 09/03/2020 Monitoring Report version 1.2 dated 25/03/2020		PP

No.	Author	Reference	Title	References to the document	Provider
20	PP	/ER1/	ER spreadsheet version 1.0 dated 03/02/2020 ER spreadsheet version 1.1 dated 09/03/2020		PP
21	PP	/ER2/	GSS1PT2 - Excel Sheet for calculating the effect of the overdue calibration of PT2 to the normalised flow for the affected period 10/10/2019 to 31/01/2020		PP
22	PP	/ER3/	GSS2TT1 - Excel Sheet for calculating the effect of the overdue calibration of TT1 to the normalised flow for the affected period 03/06/2019 to 17/09/2019 GSS2PT2 - Excel Sheet for calculating the effect of the overdue calibration of PT2 to the normalised flow for the affected period 03/06/2019 to 17/09/2019		PP
23	PP	/ER4/	Total Running Time of Flare No.2		PP
24	PP	/ER5/	TNB Bill from 01/01/2019 to 31/01/2020 for GE1, GE2 & GE3		PP
25	PP	/ER6/	Average Operating Time of Gas Engine No.1, No.2, No.3 and No.4		PP
26	PP	/ER7/	GSSF!TT1 - Excel Sheet for calculating the effect of the overdue calibration of TT1 to the normalised flow for the affected period 31/08/2019 to 17/09/2019 GSSF1PT2 - Excel Sheet for calculating the effect of the overdue calibration of PT2 to the normalised flow for the affected period 31/08/2019 to 17/09/2019		
Calibration Certificates for Flare No.2					
27	CT Services	/CF11/	Tt - T _{TT1,F2} , (Flare 2) Temperature Transmitter Honeywell S/N: B839917437 calibration by CT Services. Calibration details refer to Appendix 6		Other
28	CT Services	/CF12/	TEG _m – Flare 2 Temperature Transmitter Honeywell S/N: B838901937 calibration by CT Services. Calibration details refer to Appendix 6		Other
29	CT Services	/CF13/	Pt - P _{PT2,F2} (Flare 2) Pressure Transmitter Rosemount S/N: 5584784 calibration by CT Services. Calibration details refer to Appendix 6		Other
30	CT Services	/CF14/	V _{t,wb} FT1 Flare No.2 (FT119) Total Flow Transmitter Rosemount S/N: 4972946 calibration by CT		Other

No.	Author	Reference	Title	References to the document	Provider
			Services. Calibration details refer to Appendix 6.		
31	CT Services	/CF15/	V _{t,wb} – FT2 – FT140 (Flare 2) Flow Transmitter Rosemount S/N: 5476627 calibration by CT Services Calibration details refer to Appendix 6		Other
32	CT Services	/CF16/	V _{CH4,m,db} – Flare 2 CH ₄ Gas Analyser (Guardian) S/N: 31453, calibration by CT Services. Calibration details refer to Appendix 6 V _{CH4,m,db} – Flare 2 CH ₄ Gas Analyser (Guardian) S/N: 313542, calibration by CT Services. Calibration details refer to Appendix 6		Other
33	Air Products	/CF17/	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 Engine 1:					
34	CT Services	/CF21/	T _t - T _{TT1,GSS1} (GSSF1 - GE1) Temperature PR Electronics S/N: 100944768 calibration by CT Services. Calibration details refer to Appendix 6		Other
35	CT Services	/CF22/	P _t - P _{PT2,GSS1} (GSSF1 – GE1) Pressure Transmitter Rosemount S/N: 02492864 calibration by CT Services. Calibration details refer to Appendix 6		Other
36	CT Services	/CF23/	V _{t,wb} – FT3 (GSSF1 – GE1) Flow Transmitter KVS S/N: 02768007, calibration by CT Services. Calibration details refer to Appendix 6		Other
37	CT Services	/CF24/	V _{CH4,m,db} – GSSF1 CH ₄ Gas Analyser GA5000 CH ₄ S/N: G505823 calibration by QED Environmental System Ltd details refer to Appendix 6 V _{CH4,m,db} – GSSF1 CH ₄ Gas Analyser Gasboard-3200 CH ₄ S/N: 21905310261000000001, calibration by Hubei Cubic Ruiyi Instrument Co. Ltd details refer to Appendix 6		Other

No.	Author	Reference	Title	References to the document	Provider
38	RA Power	/CF25/	EGPJ,y: EL4 (GSSF1) 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		
39	RA Power	/CF26/	ELPJ: EL1 (Back Up) from Grid to Flare systems and GE auxiliary S/N: 2167890035, calibration by RA Power System Protection. Calibration details refer to Appendix 6		
40	RA Power	/CF27/	<ul style="list-style-type: none"> Power Meter (EL5, Itron), S/N: 53099690 calibration by TNB. Calibration details refer to Appendix 6. Power Meter (EL5 check meter, Itron), S/N: 53099691 calibration by TNB. Calibration details refer to Appendix 6. 		
Calibration Certificates for Gas Engines No.2 and No.3					
41	CT Services	/CF31/	Tt - T _{TT1,GSS1} (GSS1 - GE2 & 3) Temperature Transmitter Honeywell S/N: b527143837 calibration by CT Services. Calibration details refer to Appendix 6		Other
42	CT Services	/CF32/	<p>Pt - P_{PT2,GSS1} (GSS1 - GE 2 & 3) Pressure Transmitter Rosemount S/N: 5916057 calibration by CT Services. Calibration details refer to Appendix 6</p> <p>Pt - P_{PT2,GSS1} (GSS1 - GE 2 & 3) Pressure Transmitter Rosemount S/N: 5584784 calibration by CT Services. Calibration details refer to Appendix 6</p>		Other
43	CT Services	/CF33/	V _{t,wb} – FT3 (GSS1 – GE2 & 3) Flow Transmitter KVS S/N: 05988022, calibration by CT Services. Calibration details refer to Appendix 6		Other
44	CT Services	/CF34/	<p>V_{CH4,m,db} – GSS1 CH₄ Gas Analyser (Edinburgh Guardian Ng) S/N: 14464, calibration by One Gasmaster Sdn Bhd</p> <p>GSS1 CH₄ Gas Analyser (Guardian Plus) S/N: 33436 calibration by One Gasmaster Sdn Bhd</p> <p>Calibration details refer to Appendix 6</p>		Other

No.	Author	Reference	Title	References to the document	Provider
45	IME	/CF35/	EG _{EC,y} : EL6 Import Power Meter (IME) S/N: 2661930098 calibration by IME. Calibration details refer to Appendix 6		Other
46	RA System	/CF36/	EG _{PJ,y} : EL9 – GSS1 GE2 generation Power Meter (EDMI Limited) S/N: 211516862 calibration by RA Power System on 13/05/2015		Other
47	RA System	/CF37/	EG _{PJ,y} : EL10 – GSS1 generation GE2 Power Meter (EDMI Limited) S/N: 211516863 calibration by RA Power System. Calibration details refer to Appendix 6		Other
48	TNB	/CF38/	EG _{PJ,y} : EL11 – GSS1 Main Meter to grid (EDMI Limited) S/N: 908705152 calibration by TNB. Calibration details refer to Appendix 6 Power Meter – EL11 check meter (EDMI Limited) S/N: 908705154 calibration by TNB. Calibration details refer to Appendix 6		Other
Calibration Certificates for Gas Engine No. 4					
49	CT Services	/CF41/	Tt - T _{TT1,GSS2} (GSS2 - GE4) Temperature Transmitter Autrol S/N: 4151000 calibration by CT Services. Calibration details refer to Appendix 6		Other
50	CT Services	/CF42/	Pt - P _{PT2,GSS2} (GS2 - GE4) Pressure Transmitter Autrol S/N: APT3200-4150998 calibration by CT services. Calibration details refer to Appendix 6		Other
51	Binder	/CF43/	V _{t,wb} – FT3 (GSS2 – GE4) Flow Transmitter Combimass S/N: C150327 calibration by Binder. Calibration details refer to Appendix 6		Other
52	One Gasmaster CT Services	/CF44/	V _{CH4,m,db} – GSS2 CH ₄ Gas Analyser (Guardian NG) S/N: 33542 calibration by CT Services. GSS2 CH ₄ Gas Analyser (Guardian NG) S/N: 14464 calibration by One Gasmaster. Calibration details refer to Appendix 6		Other
53	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

No.	Author	Reference	Title	References to the document	Provider
54	TNB	/CF46/	EGPJy: EL13 – GSS2 Main Meter to grid Power Meter (Itron) S/N: 81480576 calibration by TNB. Power Meter EL13 GSS 2 check meter to grid (Itron) S/N: 81480578 calibration by TNB. Calibration details refer to Appendix 6		Other
Daily Manual Log Sheet					
55	PP	/DML1/	Daily Monitoring Log Sheet for Flare No. 2 from 01/01/2019 to 31/01/2020		PP
56		/DML2/	Daily Monitoring Log Sheet for Gas Engines No. 1 to 4 from 01/01/2019 to 31/01/2020		
57	PP	/DML3/	Daily Monitoring Log Sheet for Gas Engines No. 2 and No. 3 from 01/01/2019 to 31/01/2020		PP
58	PP	/DML4/	Daily Monitoring Log Sheet for Gas Engines No. 2 and No. 3 from 01/01/2019 to 31/01/2020		PP
59	PP	/DML5/	Daily Monitoring Log Sheet for Gas Engine No. 1 from 01/01/2019 to 31/01/2020		PP
Internal Audit					
60	PP	/IAR1/	<ul style="list-style-type: none"> CDM Audit Report for monitoring period from 01/01/2019 to 30/05/2019 conducted on 12/09/2019 and from 01/06/2019 to 31/01/2020 conducted on 06/02/2020 CDM Audit Attendance List dated 		PP
Maintenance & Service Programme & Records					
61	PP	/MS1/	Yearly Maintenance and Operation Record for Flare No.2, GE1, GE2, GE3 & GE4 for monitoring period from 01/01/2019 to 31/01/2020		PP
62	PP	/MS2/	Service and Maintenance Record for Flare 2 for monitoring period 01/01/2019 to 31/02/2020		PP
63	PP	/MS3/	Service and Maintenance Record for Gas Engine No.1 for monitoring period from 01/01/2019 to 31/01/2020		PP
64	PP	/MS4/	Service and Maintenance Record for Gas Engine No.2 and No.3 for monitoring period from 01/01/2019 to 31/01/2020		PP
65	PP	/MS5/	Service and Maintenance Record for Gas Engine No.4 for monitoring		PP

No.	Author	Reference	Title	References to the document	Provider
			period from 01/01/2010 to 31/01/2020		
Management Meeting Records					
66	PP	/MMR1/	<ul style="list-style-type: none"> CDM Management Meeting No. 18, Minutes of Meeting dated 29/04/2019 CDM Management Meeting No. 19, Minutes of Meeting dated 17/06/2019. 		PP
QA/QC Manual					
67	PP	/MM1/	Monitoring Manual version 7.0 dated 21/03/2019		PP
Shutdown and Downtime Records					
68	PP	/SDR1/	Flare 2 system from 01/01/2019 – 31/01/2020		PP
69	PP	/SDR2/	Gas Engine No. 1 from 01/01/2019 – 31/01/2020		PP
70	PP	/SDR3/	Gas Engine No. 2 from 01/01/2019 – 31/01/2020		PP
71	PP	/SDR4/	Gas Engine No.3 from 01/01/2019 – 31/01/2020		PP
72	PP	/SDR5/	Gas Engine No. 4 from 01/01/2019 – 31/01/2020		PP
Training Records					
73	PP	/T1/	Training Record Attendance for year 2019		PP
Raw Data					
74	PP	/FRD2/	Flare No.2 LFG raw data for monitoring period from 01/01/2019 – 31/01/2020		PP
75	PP	/GSS1RD/	Gas Engines No.2 and No.3 raw data for monitoring period from 01/01/2019 – 31/01/2020		PP
76	PP	/GSS2RD/	Gas Engine No.4 LFG raw data for monitoring period from 01/01/2019 – 31/01/2020		PP
77	PP	GSSF1RD	Gas Engine 1 LFG raw data for monitoring period from 01/01/2019 – 31/01/2020		PP
Others					
78	PP	/O1/	Monthly Tests and fuel records		PP
79	PP	/O2	Environmental Monitoring Report (Oct – Dec 2019)		PP
80	PP	/O3/	CO ₂ Manual Recording for Flare 2 Average CO ₂ and CI 95% calculation		PP
81	PP	/O4/	Average O ₂ for Flare 2		PP
82	TNB	/O6/	Malaysian Grid Code (pg 419) dated 02/08/2010		PP

No.	Author	Reference	Title	References to the document	Provider
Equipment & Instruments					
83	PP	/E1/	Biogas Genset Technical Data from MWM undated Biogas Genset Technical Data for MTU undated		PP
84	PP	/E2/	Enclosed Biogas Flaring System Technical Specifications by Beijing Fairyland Environmental Technology Co. Ltd.		PP
85	PP	/E4/	Flare 2 instruments specifications dated 30/10/2010		PP
86	PP	/E5/	Flow Meter V-Cone specifications undated (FT1, FT2 and FT3) COMBIMASS Binder Flowmeter Transmitter for GSS2 FT3		PP
87	PP	/E6/	Guardian Plus Gas Analyser Specification undated Guardian NG Gas Analyser Specification undated		PP
89	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
90	PP	/E8/	Autrol Pressure Transmitter - APT3200		PP
91	PP	/E9/	EL1 meters information		PP
92	PP	/E10/	EL4 meter information		PP
93	PP	/E11/	Total Engine Management System		PP
94	TNB	/E12/	TNB Meters (EL5) Details and Calibration Labels		PP
95	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
96	PP	/E14/	Technical specifications for power meters EL6 (IME) Calibration frequency documentation for power meters EL6 (IME)		PP
97	PP	/E15/	Technical specifications for power meters EL9 – EL12 (EDMI Limited)		PP

No.	Author	Reference	Title	References to the document	Provider
			Calibration frequency documentation for power meters EL9 – EL12 (EDMI Limited)		
98	PP	/E16/	References of equipment power for engine 2 & 3, 4, GSS1 and GSS2 for electricity consumption		PP
99	PP	/E17/	Diesel Gen-set Specification		PP
100	PP	/E18/	Diesel Fuel Gauge		PP
101	PP	/E19/	Technical specifications for Geotech portable gas analyser (GA3200)		PP
102		/dnaMY/	http://www.nre.gov.my/English/Profile/DivisionInformation/Pages/Environmental%20Management%20and%20Climate%20Change.aspx	DNA Malaysia	
103		/unfccc/	http://cdm.unfccc.int	UNFCCC	
104		/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.	Date: DD/MM/YYYY
Description of FAR			
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.3-01	Section no.	B.1	Date:	05/03/2020
Description of CL					
MR version 1.0, Section B.1:					
1. Clarification on how the total running time for Gas Engines in this monitoring period is determined					
2. There is no reporting for no electricity generated from GE4 in this monitoring period.					
Project participant response (1 st round)				Date:	09/03/2020
MR version 1.1, Section B.1:					
1. The total running time for GE1 and GE4 is obtained from CER calculation sheet (hourly flare tab), column O for GE1, and column U for GE4. For GE2 and GE3, the total running time is obtained from the summary shutdown records. The summary of the total running time for Gas Engines is attached as ER6_BTSL_Average Operating Time of Gas Engine_06032020.					
2. The reason for no electricity exported from GE4 in this monitoring period is due to module faulty, major overhaul, electrical and upgrading works. The reasons are described in revised MR version 1.1, section D.2.					
Documentation provided by project participant (1 st round)					

<input type="checkbox"/> Changes in the PDD	Section(s):	New version No.:
<input checked="" type="checkbox"/> Changes in MR	Section(s): B.1 and D.2	New version No.: 1.1
<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
<input checked="" type="checkbox"/> Other:	ER6_BTSL_Average Operating Time of Gas Engine_06032020 Summary shutdown records	
DOE assessment (1st round)		Date: 12/03/2020
MR version 1.1, Section B.1:		
<p>1. The explanation by PP for the total running hours are derive from the CER calculation sheet (hourlyflare tab), column O for GE1 and column U for GE4. GE2 and GE3 total running time derives from the summary shutdown records.</p> <p>CER calculation spreadsheet and shutdown summary report are verify for the input data</p> <p>ER6 spreadsheet is review and verify on the total running hours for each GE and are appropriate.</p> <p>2. The PP explained in revised MR that the amount of electricity exported from GE4 there is no reading from the external grid operator meter whilst the internal meter has readings. According to the monitoring procedure describe in PDD version 20.5 the lower value between internal and external meter is taken for calculation. In accordance with the monitoring plan as there is no reading from the external meter, zero is applied which is conservative. Therefore, the reason for zero electricity is reported for GE4 in this monitoring is correct and in line with the registered monitoring plan. In addition, GE4 is shut down for major maintenance, electrical and upgrading works. The downtime records are verified and correct.</p> <p>In this aspect the ERs for power generation by GE4 is zero for this monitoring period.</p>		
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.3-02	Section no.	B.2.5	Date:	05/03/2020
Description of CL					
MR version 1.0, Section B.2.5: Clarification for post registration changes PRC-2467-006.					
Project participant response (1st round)					Date: 09/03/2020
MR version 1.1, Section B.2.5					
The post registration change PRC-2467-006 is not applicable to this monitoring period, and removed from the revised MR, version 1.1					
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.2.5	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: 12/03/2020
MR version 1.1, Section B.2.5					
The post registration change PRC-2467-006 is deleted since not applicable for this monitoring period.					
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.8-01	Section no.	D.2	Date:	05/03/2020
Description of CL					
MR version 1.0, Section D.2, Parameter Opj,h:					
<p>1. Clarification request for the determination of the flare operating hours.</p> <p>2. Operating hours of 21 hours for GE1</p> <p>3. Operating hours of 78 and 1 hour for GE4</p>					
Project participant response (1st round)					Date: 09/03/2020

MR version 1.1, Section D.2, Parameter Opj,h:

1. The operating hour for flare is calculated from the CER calculation sheet (hourlyflare tab), column K. The summary of the total running time for flare is attached as ER4_BTSL_Total Running Time of Flare2_05032020.
2. The operating hour of 21 hours for GE1 was updated to 10 hours according to the CER calculation sheet as explained in CL ID - E.3-01. In MR version 1.0, the 21 hours was obtained from daily manual logsheet (DML), however, during the verification, it was found out that the operating hour for GE1 recorded in DML is not represent the respective day. For example, the time recording for operating hour for GE1 on 01/08/2019 was at 08:20am, which is not at 12:00am. As a result, the operating hour for GE1 is derived from CER calculation sheet.
3. The operating hour of 1 hour for GE4 was deleted according to the CER calculation sheet as explained in CL ID - E.3-01. In MR version 1.0, the 1 hour for the period from 01/04/2019 – 30/04/2019 was obtained from daily manual logsheet (DML), however, during the verification, it was found out that the operating hour for GE4 recorded in DML is not represent the respective day. For example, the time recording for operating hour for GE4 on 01/04/2019 and 01/10/2019 was at 07:38am and 08:17am respectively, which is not at 12:00am. As a result, the operating hour for GE4 is derived from CER calculation sheet. On the other hand, the operating hour for GE4 for the period from 01/09/2019 – 30/09/2019 calculated from CER calculation sheet is 78 hours, as a result, there is no update on the operating hour.

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):	New version No.: 1.1
<input checked="" type="checkbox"/> Other:	ER4_BTSL_Total Running Time of Flare2_05032020.	

DOE assessment (1st round)

Date: 12/03/2020

MR version 1.0, Section D.2, Parameter Opj,h:

1. PP explain as above the flare operating hours in the CER calculation sheet (hourlyflare tab), column K is based on the summary of the total running time for flare from ER4_BTSL_Total Running Time of Flare2_05032020. The relevant spreadsheet are verify for correctness.
2. The operating hours of 21 hours for GE1 is revised to 10 hours according to the CER calculation sheet instead of data from daily manual logsheet since the data is not representative. The data is crosscheck for appropriateness.
3. As explained above by PP, the 1 hour is deleted since it does not represent the period 01/04/2019 to 30/04/2019 as derived from DML as compared to the actual data captured in CER spreadsheet. Therefore, it is appropriate to delete.

The 78 hours remain unchanged since the data is derived from the CER calculation spreadsheet. Therefore, is appropriate.

Conclusion

Tick the appropriate checkbox

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

CL ID	E.8-02	Section no.	D.2	Date:	05/03/2020
Description of CL					
MR version 1.0, Section D.2, Parameter EG _{PJ,y} : Clarification requested for the no electricity data for GE4 during this monitoring period.					
Project participant response (1 st round)				Date:	09/03/2020
MR version 1.1, Section D.2, Parameter EG _{PJ,y}					
The reason for no electricity claim from GE4 is due to module faulty, major overhaul, electrical and upgrading works. The reasons are described in revised MR version 1.1, section D.2.					
Documentation provided by project participant (1 st 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 (1 st round)				Date:	12/03/2020

MR version 1.1, Section D.2, Parameter EG_{PJ,y}: There no electricity data for GE4 for this monitoring period due to breakdown of GE and upgrading of electrical works. The downtime is crosscheck with shutdown records for correctness.

Conclusion

Tick the appropriate checkbox

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

CL ID	E.8-03	Section no.	E.5	Date:	05/03/2020
Description of CL					
MR version 1.0, Section E.5: Clarification requested on how the ex-ante ERs are determined.					
Project participant response (1st round)					Date: 09/03/2020
MR version 1.1, Section E.5					
Total CER estimated for 2019 (01/01/2019 – 31/12/2019) in PDD version 20.5 is 275,934 tCO ₂ e					
Total CER estimated for 2020 (01/01/2020 – 31/12/2020) in PDD version 20.5 is 280,970 tCO ₂ e, there is 366 days in 2020, as a result, the CER per day for 2020 is 768 tCO ₂ e, total CER estimated for 01/01/2020 – 31/01/2020 (31 days) is 23,798 tCO ₂ e.					
The total CER for the period from 01/01/2019 – 31/01/2020 is 299,732 tCO ₂ e.					
The explanation is described in revised MR version 1.1.					
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.5	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: 12/03/2020
MR version 1.1, Section E.5: The ex-ante ERs are updated and 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			

CL ID	E.8-04	Section no.	ER spreadsheet	Date:	05/03/2020
Description of CL					
ER spreadsheet 01 version 1.0:					
1. Jan 19 ELPJ tab: Clarification for MPE in Cell B37 since there is no delay in calibration for meter EL6					
2. Clarification for GSS3 data in tab May19 hourly flare to tab Dec19 hourly flare.					
Project participant response (1st round)					Date: 09/03/2020
ER spreadsheet 01 version 1.1:					
1. The delay in calibration for meter EL6 was removed from the revised ER spreadsheet					
2. The GSS3 data in tab May 19 hourly flare to tab Dec19 hourly flare was removed from the revised ER spreadsheet					
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): Jan 19 EL PJ	New version No.: 1.1		
<input type="checkbox"/>	Other:				
DOE assessment (1st round)					Date: 12/03/2020
ER spreadsheet 01 version 1.1:					
1. Jan 19 ELPJ tab: Since there is no delay in calibration for meter EL4 it is appropriate to delete the information.					
2. GSS3 data in tab May19 hourly flare to tab Dec19 hourly flare are removed since not applicable.					
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.8-05	Section no.	ER spreadsheet	Date:	05/03/2020
Description of CL					
ER spreadsheet 01 version 1.0: Clarification is requested for the determination of CH ₄ data for GSSF1 using the portable gas analyser for period Jan to Mar 2019 and September 2019					
Project participant response (1st round)					Date: 09/03/2020
ER spreadsheet 01 version 1.1:					
The CH ₄ data for GSSF1 using the portable gas analyser for the period from Jan to Mar 2019 and September 2019 is attached as OTH06a - GSSF1 CH ₄ Manual Record and OTH06b - CH ₄ & FT2 95% Confidence Interval_GSSF1. The description for the sampling plan is included in revised MR version 1.1 section D.3					
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):		New version No.: 1.1	
<input checked="" type="checkbox"/> Other:		OTH06a - GSSF1 CH ₄ Manual Record and OTH06b - CH ₄ & FT2 95% Confidence Interval_GSSF1			
DOE assessment (1st round)					Date: 12/03/2020
ER spreadsheet 01 version 1.1: The CH ₄ data for GSSF1 using the portable gas analyser for period Jan to Mar 2019 and September 2019 is verify as per document OTH06a - GSSF1 CH ₄ Manual Record and OTH06b - CH ₄ & FT2 95% Confidence Interval_GSSF1.					
The calculation is deemed appropriately and in accordance to the sampling plan as describe in section D.3.					
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.8-06	Section no.	ER spreadsheet	Date:	05/03/2020
Description of CL					
ER spreadsheet 01 version 1.0: Clarification is requested for the determination PT and TT data that will not affect the flowrate due to delay in calibration for GSSF1, GSS1 and GSS2.					
Project participant response (1st round)					Date: 09/03/2020
ER spreadsheet 01 version 1.1:					
The MPE applied for PT and TT for GSSF1, GSS1 and GSS2 is attached as ER2_Overdue GSS1, ER3_Overdue GSS2 and ER7_Overdue GSS1. The impact of applying this error to the flow normalisation is negligible.					
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):		New version No.: 1.1	
<input checked="" type="checkbox"/> Other:		ER2_Overdue GSS1, ER3_Overdue GSS2 and ER7_Overdue GSS1			
DOE assessment (1st round)					Date: 12/03/2020
ER spreadsheet 01 version 1.1: The PT and TT data for GSSF1, GSS1 and GSS2 are addressed appropriately as indicated in the respective spreadsheets for the delay in calibration with no impact to the gas flow rate.					
Therefore, no impact to the ER calculations.					
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.3-03	Section no.	B.1	Date:	05/03/2020
Description of CAR					

MR version 1.0, Section B.1: Implementation of the project activity does not reflect the current status

1. Gas Extraction System in Phase 1 and 2 Cells and Flare No.2
2. The total running time for Flare No.2 in this monitoring period.

Project participant response (1st round)

Date: 09/03/2020

MR version 1.1, Section B.1:

1. The gas extraction system for phase 3 is included in the revised MR version 1.1, section B.1
2. The operating hour for flare is calculated from the CER calculation sheet (hourlyflare tab), column K. The summary of the total running time for flare is attached as ER4_BTSL_Total Running Time of Flare2_05032020

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 checked="" type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.: 1.1
<input checked="" type="checkbox"/> Other:	ER4_BTSL_Total Running Time of Flare2_05032020	

DOE assessment (1st round)

Date: 12/03/2020

MR version 1.1, Section B.1: Implementation of the project activity is update for following and reflect the current status.

1. Gas Extraction System Phase 3 is added and according to the current situation
2. The total running time for Flare No.2 in this monitoring period in according to the CER and ER4 spreadsheets.

Conclusion

Tick the appropriate checkbox

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

CAR ID	E.5-01	Section no.	C	Date:	05/03/2020
Description of CAR					
MR version 1.0, Section C, table 3: There is a change of gas analyser and pressure transmitter not reported					
Project participant response (1st round)					Date: 09/03/2020
MR version 1.1, Section C, table 3 The changes of gas analyser and pressure transmitter is updated in the revised MR version 1.1, section C, table 3					
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: 12/03/2020
MR version 1.1, Section C, table 3: There is a change of gas analyser and pressure transmitter is update and reported appropriately.					
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.5-02	Section no.	C	Date:	05/03/2020
Description of CAR					
MR version 1.0, Section C, table 4:					
<ol style="list-style-type: none"> 1. There is a change of pressure transmitter not reported 2. The serial number for the changed gas analyser is incorrect 					
Project participant response (1st round)					Date: 09/03/2020

MR version 1.1, Section C, table 4			
1. The change of pressure transmitter is updated in the revised MR version 1.1, section C, table 4 2. The serial number for the changed gas analyser is updated in the revised MR version 1.1, section C, table 4			
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: 12/03/2020
MR version 1.0, Section C, table 4:			
1. The change of pressure transmitter is update and reported appropriately. 2. The serial number for the changed gas analyser is update and reported appropriately.			
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.5-03	Section no.	C	Date:	05/03/2020
Description of CAR					
MR version 1.0, Section C, table 5: There is a change of gas analyser and not reported					
Project participant response (1st round)					Date: 09/03/2020
MR version 1.1, Section C, table 5: The changes for the gas analyser is updated in the revised MR version 1.1, section C, table 5					
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: 12/03/2020
MR version 1.1, Section C, table 5: The change of gas analyser is update and reported appropriately.					
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.7-01	Section no.	C	Date:	05/03/2020
Description of CAR					
MR version 1.0, Section C, table 6:					
1. The maximum permissible error percentage for temperature transmitter is not according to the calibration report. 2. The maximum permissible error percentage of the manufacturer specification for pressure transmitter stated in the calibration report is incorrect.					
Project participant response (1st round)					Date: 09/03/2020
MR version 1.1, Section C, table 6:					
1. The maximum permission error for temperature transmitter is revised to 0.2% according to the calibration report in revised MR version 1.1, section C, table 6 2. The maximum permission error percentage of the manufacturer specification for pressure transmitter stated in the calibration report is revised to 0.25%. Please refer to attachment CF32c_BTSL_PT2_210220					
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 checked="" type="checkbox"/> Other:	CF32c_BTSL_PT2_210220				
DOE assessment (1st round)					Date: 12/03/2020

MR version 1.1, Section C, table 6:

1. The maximum permissible error percentage for temperature transmitter is update according to the calibration report as 0.2%.
2. The maximum permissible error percentage for the pressure transmitter in the calibration report is corrected to read as 0.25% and according to the manufacturer specification.

Conclusion

Tick the appropriate checkbox

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

CAR ID	E.8-07	Section no.	D.2	Date:	05/03/2020
Description of CAR					
MR version 1.0, Section D.2: The reporting dates for all parameters shall be dd/mm/yyyy.					
Project participant response (1st round)					Date:
MR version 1.1, Section D.2: The reporting dates for all parameters are revised to dd/mm/yyyy in revised MR version 1.1					09/03/2020
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:
MR version 1.1, Section D.2: The reporting dates for all parameters are update to read as dd/mm/yyyy.					12/03/2020
Conclusion					
Tick the appropriate checkbox		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.8-08	Section no.	D.2	Date:	05/03/2020
Description of CAR					
MR version 1.0, Section D.2, Parameter E _{EC,y} : There is no delay in calibration for EL6. The reported data for January 2019 is therefore incorrect.					
Project participant response (1st round)					Date:
MR version 1.0, Section D.2, Parameter E _{EC,y} : The reported data for January 2019 is revised in revised MR version 1.1 section D.2.					09/03/2020
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:
MR version 1.1, Section D.2, Parameter E _{EC,y} : The reported data for January 2019 is corrected since there is no delay in calibration..					12/03/2020
Conclusion					
Tick the appropriate checkbox		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.8-09	Section no.	D.3	Date:	05/03/2020
Description of CAR					
MR version 1.0, Section D.3: A sampling method is applied for collection of CH ₄ data using portable analyser for GSSF1. The method of sampling has not been described.					
Project participant response (1st round)					Date:
MR version 1.1, Section D.3: The description for the sampling plan is included in revised MR version 1.1 section D.3					09/03/2020
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.3	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: 12/03/2020
MR version 1.1, Section D.3: The sampling method applied for collection of CH ₄ data using portable analyser for GSSF1 is in accordance to Guidelines to calculate the fraction of methane in the landfill gas from periodical measurements (Version 01). Therefore, 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.8-10	Section no.	Appendix 3	Date:	05/03/2020
Description of CAR					
MR version 1.0, Appendix 3: Flare No.1 is not in operation any longer. Correction required.					
Project participant response (1st round)					Date: 09/03/2020
MR version 1.1, Appendix 3: The correction was done in revised MR version 1.1, appendix 3					
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): Appendix 3		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: 12/03/2020
MR version 1.1, Appendix 3: Correction to Flare No.2 since Flare No.1 no longer in 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.8-11	Section no.	ER Spreadsheet	Date:	05/03/2020
Description of CAR					
ER 1 spreadsheet version 1.0, Jan19 EL PJ tab: Row 38 is not applicable for this monitoring period.					
Project participant response (1st round)					Date: 09/03/2020
ER 1 spreadsheet version 1.1, Jan19 EL PJ tab: Row 38 is removed from the revised ER spreadsheet version 1.1					
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): Jan19 ELPJ		New version No.: 1.1		
<input type="checkbox"/> Other:					
DOE assessment (1st round)					Date: 12/03/2020
ER 1 spreadsheet version 1.1, Jan19 EL PJ tab: Row 38 is removed since not applicable for this monitoring period and 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.8-12	Section no.	ER Spreadsheet	Date:	05/03/2020
Description of CAR					
ER1 spreadsheet version 1.0: There are missing data for following.					
1. F2 (FT2) for Jan 19, Oct 19, Nov 19 and Jan 20 2. F2 (CH ₄) for Oct 19 - Dec 19 and Jan 20 3. GSS1 (FT3) for Nov 19					
Project participant response (1st round)					Date: 10/03/2020

ER1 spreadsheet version 1.1:		
The missing data for F2 (FT2) for Jan 19, Oct 19, Nov 19 and Jan 20, F2 (CH4) for Oct 19 - Dec 19 and Jan 20, and GSS1 (FT3) for Nov 19 is included in the revised CER sheet		
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):	New version No.: 1.1
<input type="checkbox"/> Other:		
DOE assessment (1st round)		Date: 12/03/2020
ER1 spreadsheet version 1.1: There are missing data for following have been updated in respective sheets. The respective data sheets are verify to crosscheck the addition data.		
With the added data has caused an increase in CERs. The calculation are review and verify as 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 6. FAR from this verification

FAR ID	xx	Section No.		Date: DD/MM/YYYY
Description of FAR				
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		
<p>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></p>	<p>/MR/ /PDD1/ /O2/</p>	<p><i>Description:</i> 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</p> <p><i>Verifier's action:</i> 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</p> <p><i>Conclusion:</i> It is concluded the parameter is monitored in accordance with the approved revised PDD</p> <p><input type="checkbox"/> In this context the following findings have been raised:</p> <p><input type="checkbox"/></p>	OK	OK
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)</p>	<p>/MR/ /PDD1/</p>	<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>	OK	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>	/MM1/ /IM01/	<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 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:		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<input type="checkbox"/>		
2. Op_{j,h}		Description: Operation of the equipment that consumes the LFG		
<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/ /ACM1/ /PDD1/ /ER4/ /ER6/ /DML1- DML5/ /SDR1- SDR5/ /MS1 – MS5/</p>	<p><i>Description:</i></p> <p>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.</p> <p>All monitored data are capture in the SCADA system.</p> <p>The data is recorded on hourly, aggregated monthly and yearly.</p> <p>During this monitoring period GE1 and GE4 operation hours are low due to the engines problems and shut down for maintenance.</p> <p>Flare 2 did not operate during the period June to September 2019 due to shut down for gas quality checking and gas stability testing</p> <p><i>Verifier's action:</i></p> <p>During the onsite assessment, the run-hour meters installed at each engine were inspected.</p> <p>The operational log records for the flare and gas engines operational hours and flame detector are review.</p> <p>The shutdown records for Flare 2, GE1 and GE4 are reviewed to crosscheck on the shutdown.</p> <p>There are no exchange of gas engines or flare during this monitoring period.</p> <p>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.</p> <p><i>Conclusion:</i></p>	<p>GLE-8- 04 CAR E-8-07</p>	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.																		
		<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>CL E.8-01</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.8-07</td></tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CL E.8-01	<input checked="" type="checkbox"/>	CAR E.8-07														
<input checked="" type="checkbox"/>	In this context the following findings have been raised:																					
<input checked="" type="checkbox"/>	CL E.8-01																					
<input checked="" type="checkbox"/>	CAR E.8-07																					
<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/ /ER4/ /ER6/ /DML1-DML5/ /SDR1-SDR5/ /MS1 – MS5/ /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> <tr> <td><input type="checkbox"/></td><td>A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:</td></tr> <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> </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	<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	CL E.8-01	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																					
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Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
		<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"/>	CL E.8-01		
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			
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/ /E9/ /E10/ /E12/ /E14/ /E15/ /CF25/ /CF27/ /CF36- CF38/ /CF45- CF46/ /ER1/	Description: This parameter monitored the net amount of electricity generated using landfill gas. GSSF1 (Gas Engine 1): The amount of electricity generated by the gas engine no. 1 is measured by meter EL4. EL1 is no longer in use and act as a standby meter to record the actual power consumption for Flare 2 and GSSF1. The amount of electricity generated by gas engine 1 export to the grid is measured by meter EL5 which belongs to the grid operator, Tenaga Nasional Berhad (TNB). 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. EL5 is owned by TNB and calibration is not conducted since the due date.		CL E.8-02 CAR E.8-07	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 01/01/2019 to 31/01/2020.</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 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</p>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>quantity of electricity generated by gas engines 2 & 3 for the baseline emissions.</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 applied the meter accuracy of 0.5% as MPE to the measured date for period 01/01/2019 to 31/01/2020.</p> <p>Therefore, for conservativeness, meter accuracy of 0.5% is applied to the data for period 01/01/2019 to 31/01/2020 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>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.				
		<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 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 has 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>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> <hr/> <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. <hr/> <p><i>Conclusion:</i></p> <p>The parameter is monitor in accordance to the approved revised PDD and applied methodology.</p> <hr/> <table border="1" data-bbox="1108 1268 1856 1390"> <tr> <td data-bbox="1108 1268 1182 1332"><input checked="" type="checkbox"/></td> <td data-bbox="1182 1268 1856 1332">In this context the following findings have been raised:</td> </tr> <tr> <td data-bbox="1108 1332 1182 1390"><input checked="" type="checkbox"/></td> <td data-bbox="1182 1332 1856 1390">CL E.8-02</td> </tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CL E.8-02		
<input checked="" type="checkbox"/>	In this context the following findings have been raised:							
<input checked="" type="checkbox"/>	CL E.8-02							

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"/>	CAR E.8-07		
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/ /E9/ /E10/ /E12/ /E14/ /E15/ /CF25/ /CF36- 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	OK	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 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 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		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<div>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><input type="checkbox"/> In this context the following findings have been raised:</div> <div><input type="checkbox"/></div>		
4. EG_{EC,y}		Description: Amount of electricity consumed 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 / / ER1 / / E14 / / CF35 / / DML2 /	<p><i>Description:</i></p> <p>This parameter monitors the quantity of electricity consumed by the project activity Flare 2 systems, gas engines auxiliaries for GE1, GE2 & GE3, GE4, from the grid and measured by meter EL6 owned by the project owner.</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><i>Verifier's action:</i></p> <p>The grid electricity consumed by project activity were verified and the data applied in ER spreadsheet were crosschecked with the daily records.</p> <p>A daily manual reading and recorded.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD and applied methodology</p> <div> <input checked="" type="checkbox"/> In this context the following findings have been raised: <div> <input checked="" type="checkbox"/> CAR E.8-07 <input checked="" type="checkbox"/> CAR E.8-08 </div> </div>	CAR E.8-07 CAR E.8-08	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
<p>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></p>	/MR/ /ER1/ /CF35/ /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-8-08	OK
		<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6		
		<input checked="" 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: End date of delay:		
		<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		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
		<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.8-08		
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) <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/ /ACM1/ /ER1/	Description: The parameter measured the methane % by an online gas analyser for Flare 2, GSS1, GSS2 and GSSF1. The on-line analyser for GSSF1 malfunction on 07/10/2018 and a portable analyser was used to measure the data for the period 01/01/2019 to 12/09/2019. The data is measured weekly as describe in Section D.3 of MR. A delay in calibration for Flare 2 analyser conducted on 18/09/2019 with MPE of 2% the instrument accuracy error is applied to the data from 03/06/2019 to 17/09/2019. A delay in calibration for GSS2 analyser conducted on 03/02/2020 with MPE of 2% the instrument accuracy error is applied to the data from 26/12/2019 to 31/01/2020. The on-line analyser for GSSF1 malfunction on 07/10/2018 and a portable analyser was used to measure the data. The data is for reporting purposes, not applied in ER calculations and once for the crediting period. Verifier´s action: During the onsite assessment, the data in the MR was crosschecked.		CAR E.8-07	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>The delay of the calibration has no impact to ER since the data is for reporting purposes.</p> <p><i>Conclusion:</i></p> <p>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.8-07</p>		
<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>	<p>/MR/ /ER1/ /MM1/ /IM01/</p>	<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 calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY</p> <p><input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:</p> <p><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</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
		<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"/>			
6. TEG_m (T_{Flare,F2})		Description: Temperature in the exhaust gas of the enclosed flare in minute <i>m</i>			
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/ /ER4/ /CF12/ /SDR1/ /FRD2/	Description: This parameter monitors the temperature of the exhaust gas of the enclosed flare 2. A temperature sensor (thermocouple) is installed at the flare to capture the data. The parameter is continuously measured by the temperature sensor. Verifier's action: The data is review and crosschecked with ER spreadsheet for correctness. Conclusion: The parameter is monitored in accordance with the approved revised PDD and applied methodology		OK	OK
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:		

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"/> CAR E.8-07								
<p>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></p>	/MR/ /ER1/ /IM01/ /MM1/ /CF12/ /E7/	<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								
		<input checked="" 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 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 type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: End date of delay:								
		<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" data-bbox="1108 1013 1856 1383"> <tr> <td data-bbox="1108 1013 1182 1137"> <input type="checkbox"/> </td> <td data-bbox="1182 1013 1856 1137">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 data-bbox="1108 1137 1182 1230"> <input type="checkbox"/> </td> <td data-bbox="1182 1137 1856 1230">The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument</td> </tr> <tr> <td data-bbox="1108 1230 1182 1324"> <input type="checkbox"/> </td> <td data-bbox="1182 1230 1856 1324">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 data-bbox="1108 1324 1182 1383"> <input type="checkbox"/> </td> <td data-bbox="1182 1324 1856 1383">The error has been applied in a conservative manner, such that the adjusted measured values of the delayed</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
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<input type="checkbox"/>	The error has been applied in a conservative manner, such that the adjusted measured values of the delayed									

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
			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"/>			
7. Flame_m		Description: Flame detection of flare in the minute m			
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/ /ER6/ /ACM1/ /FRD2/	Description: The operation of the flaring system is monitored whenever in operation by an UV flame detector continuously and data recorded in the DCS system. Verifier's action: The flame detection is crosschecked with the amount of gas sent to flare 2 for combustion. 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 Conclusion: The parameter is monitored in accordance with the approved revised PDD and applied methodology <input type="checkbox"/> In this context the following findings have been raised: <input type="checkbox"/>		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	/MR/ /QA1/ /ER6/ /FRD2/	<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		OK	OK

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>	/IM01/	<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 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: <table border="1" data-bbox="1111 759 1856 1286"> <tr> <td data-bbox="1111 759 1184 879"><input type="checkbox"/></td> <td data-bbox="1184 759 1856 879">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 data-bbox="1111 879 1184 967"><input type="checkbox"/></td> <td data-bbox="1184 879 1856 967">The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument</td> </tr> <tr> <td data-bbox="1111 967 1184 1062"><input type="checkbox"/></td> <td data-bbox="1184 967 1856 1062">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 data-bbox="1111 1062 1184 1190"><input type="checkbox"/></td> <td data-bbox="1184 1062 1856 1190">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 data-bbox="1111 1190 1184 1286"><input type="checkbox"/></td> <td data-bbox="1184 1190 1856 1286">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 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"/>	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"/>														

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
8. $V_{t,wb}$ ($LFG_{flare,Flare\ No.2,y}$, $LFG_{electricity,GSS1,y}$, $LFG_{electricity,GSS2,y}$, $LFG_{electricity,GSSF1,y}$)		Description: Volumetric flow of the gaseous stream in time interval t on a wet basis		
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>	<div>/MR/</div> <div>/PDD1/</div> <div>/ER1/</div> <div>/ACM1/</div> <div>/E4/</div> <div>/E5/</div> <div>/CF15/</div> <div>/CF23/</div> <div>/CF33/</div> <div>/CF43/</div> <div>/F2RD/</div> <div>/GSS1RD/</div> <div>/</div> <div>/GSS2RD/</div> <div>/</div> <div>/GSSF1RD/</div> <div>/SDR1/</div> <div>/SDR2/</div> <div>/SDR4/</div>	<div><i>Description:</i> This parameter measures the amount of landfill gas combusted by the 4 gas engines and 1 flare system. An independent flow meter Flare No.2, ($FT2_{Flare\ No.2}$), GSS1 ($FT3_{GSS1}$), GSS2 ($FT3_{GSS2}$), and GSS F1 ($FT3_{GSSF1}$) to measure the amount of LFG combusted by each of 4 gas engines and the flare. The data is measure continuously, captured every 1 minute and recorded in the DCS. GSSF1 Engine 1: FT3 - Due to delay in calibration on 18/09/2019, the maximum permissible error of $\pm 0.5\%$ which is the equipment accuracy error is applied to data for period 04/01/2019 to 17/09/2019.</div> <div><i>Verifier's action:</i> 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. The MPE applied to the data for gas engine no. 1 is crosschecked with the calibration reports and ER spreadsheet.</div> <div><i>Conclusion:</i> The parameter is monitored in accordance with the approved revised PDD</div> <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.8-07</div></div>	CAR E.8-07	OK
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)	<div>/MR/</div> <div>/PDD1/</div>	<div><input checked="" type="checkbox"/></div> <div>It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</div>	OK	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>	/ER1/	<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6		
	/ACM1/	<input type="checkbox"/>	No delayed calibration has occurred		
	/E1/	<input type="checkbox"/>			
	/E4/	<input checked="" type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.		
	/E5/	<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.		
	/CF15/	<input type="checkbox"/>			
	/CF24/	<input type="checkbox"/>			
	/CF23/	<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 End date of delay: Refer Appendix 6		
	/CF33/	<input checked="" type="checkbox"/>			
	/CF43/	<input checked="" type="checkbox"/>			
/IM01/	<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 checked="" type="checkbox"/>	<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 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 type="checkbox"/>		In this context the following findings have been raised:		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<input type="checkbox"/>		
9. $V_{CH_4,m,db}$ ($W_{CH_4,Flare\ No.2,y}$, $W_{CH_4,GSS1,y}$, $W_{CH_4,GSS2,y}$, $W_{CH_4,GSSF1,y}$)		Description: Volumetric fraction of greenhouse gas i in a time interval t on a dry basis		
<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/ /ACM1/ /ER1/ /CF16/ /CF24/ /CF34/ /CF44/ /E6/ /E19/ /FRD2/ /GSS1RD / /GSS2RD / /GSSF1RD/ /SDR1/ /SDR2/ /SDR4/</p>	<p><i>Description:</i> This parameter monitors the fraction of methane for Flare No. 2, GSS1, GSS2 and GSSF1 continuously by an on-line gas analyser. The on-line analyser for GSSF1 malfunctioned on 07/10/2018 and a portable analyser was used to measure the data for the period 01/01/2019 to 12/09/2019. The fraction of methane is measured in dry basis. The data is recorded in the DCS every minute. Flare 2: A delay in calibration for Flare 2 analyser conducted on 18/09/2019 with MPE of 2% which is instrument accuracy error is applied to the data from 03/06/2019 to 17/09/2019. There is no data during this period since Flare 2 is shut down due to the gas quality checking and gas stability testing GSS2: A delay in calibration for GSS2 analyser conducted on 03/02/2020 with MPE of 2% which is instrument accuracy error is applied to the data from 26/12/2019 to 31/01/2020. GSSF1: The on-line analyser for GSSF1 malfunction on 07/10/2018 and a portable analyser was used to measure the data. The online analyser was malfunctioned on 07/10/2018. According to approved PDD version 20.5, page 76, in case of temporary situation such as the installed CH₄ gas analyser malfunctioned or giving unrepresentative results due to data logging problem, the V_{CH_4} shall be measured manually with portable gas analyser, as conservative approach, the lower bound of the 95% Confidence Interval will be</p>	<p>CAR E.5-04 CAR E.5-03 CAR E.8-07 CAR E.8-09</p>	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.										
		<p>applied as per guideline. As a result, the CH4 was recorded using portable analyser during the period from 01/01/2019 to 12/09/2019. The 95% CI is conduct to the measured data and applied in the calculation and considered conservative.</p> <p>For details of measurement method refers to section D.3 of MR.</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 GSS2 and Flare 2 data for the affected period.</p> <p>However, there is no data for Flare 2 during the affected period. Therefore, no data affected.</p> <p>The data for GSSF1 applied is verified for correctness of the calculation of the sample data during the period when the handheld analyser is used.</p> <p>The calibration reports were verified to crosscheck for any calibration errors found and MPE applied is based on the instrument accuracy.</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" data-bbox="1037 1054 1856 1369"> <tr> <td data-bbox="1037 1054 1106 1114"><input checked="" type="checkbox"/></td> <td data-bbox="1106 1054 1856 1114">In this context the following findings have been raised:</td> </tr> <tr> <td data-bbox="1037 1114 1106 1179"><input checked="" type="checkbox"/></td> <td data-bbox="1106 1114 1856 1179">CAR E.5-01</td> </tr> <tr> <td data-bbox="1037 1179 1106 1244"><input checked="" type="checkbox"/></td> <td data-bbox="1106 1179 1856 1244">CAR E.5-03</td> </tr> <tr> <td data-bbox="1037 1244 1106 1310"><input checked="" type="checkbox"/></td> <td data-bbox="1106 1244 1856 1310">CAR E.8-07</td> </tr> <tr> <td data-bbox="1037 1310 1106 1369"><input checked="" type="checkbox"/></td> <td data-bbox="1106 1310 1856 1369">CAR E.8-09</td> </tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CAR E.5-01	<input checked="" type="checkbox"/>	CAR E.5-03	<input checked="" type="checkbox"/>	CAR E.8-07	<input checked="" type="checkbox"/>	CAR E.8-09		
<input checked="" type="checkbox"/>	In this context the following findings have been raised:													
<input checked="" type="checkbox"/>	CAR E.5-01													
<input checked="" type="checkbox"/>	CAR E.5-03													
<input checked="" type="checkbox"/>	CAR E.8-07													
<input checked="" type="checkbox"/>	CAR E.8-09													

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/	<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
	/PDD1/				
	/ACM1/	<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6		
	/ER1/				
	/CF14/	<input type="checkbox"/>	No delayed calibration has occurred		
	/CF24/	<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.		
	/CF34/				
	/CF44/	<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.		
	/E6/				
	/E19/	<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		
	/IM01/				
	/MM1/				
		<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		

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 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"/>				
10. T _t (T _{TT1,F2} , T _{TT1,GSS1} , T _{TT1,GSS2} , T _{TT1,GSSF1})		Description: Temperature of the gaseous stream in time interval t				
<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/ /TMF/ /ER3/ /ER7/ /CF11/ /CF21/ /CF31/ /CF41/ /FRD2/ /GSS1RD / /GSS2RD / /GSSF1RD/ D/	<p>Description:</p> <p>This parameter measures the LFG temperature for Flare 2, GSS1, GSS2 and GSSF1. The temperature is measured continuously measured by an integrated temperature transmitter with a sensor to capture the data.</p> <p>The data is continuously captured by the temperature sensor / transmitter.</p> <p>The measured data will be converted to normalise value that does not require further conversion at the data logger and DCS.</p> <p>The captured data is recorded and stored at the DCS for further processing.</p> <p>The temperature of LFG at 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 recalculate the flow rate to a lower value for conservativeness.</p> <p>During this monitoring period, there no reported temperature exceeds 60°C.</p> <p>GSS2: Due to delay in calibration on 18/09/2019, the maximum permissible error of ±0.1% which is the equipment accuracy error is applied to the data for period 03/06/2019 to 17/09/2019. The impact of applying this error to the flow normalisation is negligible.</p> <p>GSSF1: Due to delay in calibration on 18/09/2019, the maximum permissible error of ±0.05% which is the equipment accuracy error</p>			CAR E-8-07	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.				
		<div>is applied to the data for period 03/06/2019 to 17/09/2019. The impact of applying this error to the flow normalisation is negligible</div> <div>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.</div> <div>Conclusion: The parameter is monitored in accordance with the approved PDD and applied methodology</div> <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.8-07</div></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.</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></div>	<div>/MR/ /PDD1/ /ACM1/ /TMF/ /ER3/ /ER7/ /CF11/ /CF21/ /CF31/ /CF41/ /IM01/ /MM1/</div>	<div><input checked="" type="checkbox"/></div> <div>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 checked="" type="checkbox"/></div> <div>For details regarding the accuracy and calibration details please refer to Appendix 6</div>	<div><input type="checkbox"/></div> <div>No delayed calibration has occurred</div>	<div><input type="checkbox"/></div> <div>As per the initial assessment the monitored value is deemed to be correct.</div>	<div><input checked="" type="checkbox"/></div> <div>Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.</div>	<div><input checked="" type="checkbox"/></div> <div>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</div>	<div>CAR E.7-04</div>	<div>OK</div>

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"/> 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 checked="" type="checkbox"/> In this context the following findings have been raised:			
		<input checked="" type="checkbox"/> CAR E.7-01			
11. P_t (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.	/MR/ /PDD1/ /ACM1/ /ER1/ /ER2-ER3/ /ER7/ /CF13/	Description: This parameter measures the pressure of the LFG at Flare 2, GSS1, GSS2 and GSSF1. 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 2: During this monitoring Fare 2 was shut down for period 01/06/2019 to 30/09/2019 therefore, no data available.		CAR E.5-04 CAR E.5-02 CAR E.8-07	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.								
Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.	/CF22/ /CF32/ /CF42/ /FRD2/ /GSS1RD / /GSS2RD / /GSSF1RD/ D/	<p>GSS1: Due to delay in calibration on 21/02/2020, the maximum permissible error of $\pm 0.25\%$ which is the equipment accuracy error is applied to the data for period 10/10/2019 – 31/01/2020. The impact of applying this error to the flow normalisation is negligible.</p> <p>GSS2: Due to delay in calibration 18/09/2019 the maximum permissible error of $\pm 0.075\%$ which is the equipment accuracy error is applied to the data for period 03/06/2019 – 17/09/2019. The impact of applying this error to the flow normalisation is negligible.</p> <p>GSSF1: Due to delay in calibration on 18/09/2019, the maximum permissible error of $\pm 0.25\%$ which is the equipment accuracy error is applied to the data for period 03/06/2019 – 17/09/2019. The impact of applying this error to the flow normalisation is negligible.</p> <p><i>Verifier's action:</i> The raw data was reviewed and crosschecked 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><i>Conclusion:</i> 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.5-01</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.5-02</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.8-07</td></tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CAR E.5-01	<input checked="" type="checkbox"/>	CAR E.5-02	<input checked="" type="checkbox"/>	CAR E.8-07		
<input checked="" type="checkbox"/>	In this context the following findings have been raised:											
<input checked="" type="checkbox"/>	CAR E.5-01											
<input checked="" type="checkbox"/>	CAR E.5-02											
<input checked="" type="checkbox"/>	CAR E.8-07											

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/	<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.7-04	OK
	/PDD1/				
	/ACM1/	<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6		
	/ER1/				
	/ER2-ER3/	<input type="checkbox"/>	No delayed calibration has occurred		
	/ER7/	<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.		
	/CF13/	<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.		
	/CF22/				
	/CF32/				
	/CF42/	<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		
	/FRD2/				
	/GSS1RD /				
	/GSS2RD /	<input checked="" type="checkbox"/>	A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:		
	/GSSFIR D/	<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		

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 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.7-01		
12. $P_{H_2O,t,Sat}$		Description: Saturation pressure of H_2O 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/	Description: The data is derived from the Tool to determine the mass flow of a greenhouse gas in a gaseous stream version 3.0. The data to calculate the absolute pressure by adding the ambient pressure at normal conditions to the gauge pressure. No measurement is required. Verifier's action: The data applied is in the MR is crosscheck with the tool for correctness. Conclusion: The parameter is monitored in accordance with the approved PDD and applied methodology <input type="checkbox"/> In this context the following findings have been raised: <input type="checkbox"/>		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	/MR/ /PDD1/ /TMF/ /MM1/ /IM01/	<input type="checkbox"/> <input type="checkbox"/> <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 For details regarding the accuracy and calibration details please refer to Appendix 6 No delayed calibration has occurred	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.										
<i>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>		<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 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: <table border="1" data-bbox="1111 699 1856 1230"> <tr> <td data-bbox="1111 699 1182 826"><input type="checkbox"/></td> <td data-bbox="1182 699 1856 826">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 data-bbox="1111 826 1182 919"><input type="checkbox"/></td> <td data-bbox="1182 826 1856 919">The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument</td> </tr> <tr> <td data-bbox="1111 919 1182 1011"><input type="checkbox"/></td> <td data-bbox="1182 919 1856 1011">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 data-bbox="1111 1011 1182 1139"><input type="checkbox"/></td> <td data-bbox="1182 1011 1856 1139">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 data-bbox="1111 1139 1182 1230"><input type="checkbox"/></td> <td data-bbox="1182 1139 1856 1230">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 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"/>	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"/>														
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												

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<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 / / O3 /	<p><i>Description:</i></p> <p>The parameter measured manually using a portable gas analyser on a weekly basis.</p> <p>A minimum sampling frequency of one sample per week. The collected data is to calculate to obtain the lower bound of 95% confidence interval.</p> <p>The data is for reporting purposes and not applied in ER calculations.</p> <p><i>Verifier's action:</i></p> <p>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.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD and applied methodology</p> <div> <input type="checkbox"/> In this context the following findings have been raised: <div> <input type="checkbox"/> </div> </div>	OK	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.</p>	/ MR / / PDD1 / / O3 / / 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 type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct. </div>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
<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 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"/>			
14. V_{O₂,t,db}		Description: Volumetric fraction of greenhouse gas O₂ in the gaseous stream in time interval t on a dry basis			
a) Measurement / Determination method (VVS, §§ 363-367)	/MR/ /PDD1/	<p><i>Description:</i></p> <p>The parameter is measured continuously by an online gas analyser.</p>		OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<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 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>	/O6/	<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>		
		<div> <input type="checkbox"/> In this context the following findings have been raised: <div> <input type="checkbox"/> </div> </div>		
<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/ /O46 /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		
		<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		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<div data-bbox="1055 276 1084 296" style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-bottom: 5px;"></div> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the: <div data-bbox="1115 347 1144 368" style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-bottom: 5px;"></div> 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 data-bbox="1115 483 1144 504" style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-bottom: 5px;"></div> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument <div data-bbox="1115 576 1144 596" style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-bottom: 5px;"></div> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument <div data-bbox="1115 668 1144 689" style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-bottom: 5px;"></div> 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 data-bbox="1115 796 1144 817" style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-bottom: 5px;"></div> 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 data-bbox="1055 888 1084 909" style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-bottom: 5px;"></div> In this context the following findings have been raised: <div data-bbox="1128 938 1158 959" style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-bottom: 5px;"></div>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.		<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> <p><input type="checkbox"/> In this context the following findings have been raised:</p> <p><input type="checkbox"/></p>		
<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>	<p>/MR/ /PDD1/ /ER1/ /MM1/ /IM01/</p>	<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 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 calibration has been identified for the following period:</p> <p>Start date of delay: DD/MM/YYYY</p> <p>End date of delay: DD/MM/YYYY</p> <p><input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:</p> <p><input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.														
		<table border="1"> <tr> <td data-bbox="1108 256 1182 320"></td> <td data-bbox="1182 256 1856 320">scheduled date of calibration and the actual date of calibration</td> </tr> <tr> <td data-bbox="1108 320 1182 416"><input type="checkbox"/></td> <td data-bbox="1182 320 1856 416">The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument</td> </tr> <tr> <td data-bbox="1108 416 1182 512"><input type="checkbox"/></td> <td data-bbox="1182 416 1856 512">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 data-bbox="1108 512 1182 632"><input type="checkbox"/></td> <td data-bbox="1182 512 1856 632">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 data-bbox="1108 632 1182 735"><input type="checkbox"/></td> <td data-bbox="1182 632 1856 735">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> <tr> <td data-bbox="1108 735 1182 783"><input type="checkbox"/></td> <td data-bbox="1182 735 1856 783">In this context the following findings have been raised:</td> </tr> <tr> <td data-bbox="1108 783 1182 826"><input type="checkbox"/></td> <td data-bbox="1182 783 1856 826"></td> </tr> </table>		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"/>			
	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"/>																		
16. FC_{i,j,y}		Description: Quantity of fuel type i combusted in process j during the 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 / / ER1 / / O1 /	<p><i>Description:</i></p> <p>The parameter monitors the usage of diesel by the standby genset.</p> <p>A fuel meter is use to monitor the diesel consumption.</p> <p>The meter installed at the genset is part of engine management system therefore, no calibration is required.</p> <p>During this monitoring period, the amount fuel consumed is mainly for monthly testing of the genset.</p> <p>According to the approved PDD, the usage of fuel is crosscheck with purchased quantities and usage stock change.</p> <p><i>Verifier's action:</i></p> <p>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.</p>	OK	OK														

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>During the onsite the fuel gauge was inspected that indicate the amount fuel left in the tank was approx. 455 liters based on the gauge meter.</p> <p>For this monitoring period the amount of diesel used for the monthly testing is 71 litres.</p> <p>For the calculation, the amount of diesel in litre is converted to t/y by multiplying with the density of diesel (kg/l).</p> <p>The data applied in the ER spreadsheet has been verified.</p> <p><i>Conclusion:</i></p> <p>The monitoring of the parameter is in accordance to the approved PDD</p> <div> <input type="checkbox"/> In this context the following findings have been raised: <div> <input type="checkbox"/> </div> </div>		
<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/ /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 this entire monitoring period. </div> <div> <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 </div>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.										
		<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 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.		
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		<input type="checkbox"/> In this context the following findings have been raised: <table border="1"> <tr> <td><input type="checkbox"/></td> <td></td> </tr> </table>	<input type="checkbox"/>											
<input type="checkbox"/>														
17. EF_{CO2,i,y}		Description: Weighted average CO₂ emission factor of fuel type i in year												
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.	/MR/ /IPCC/ /PDD1/ /ER1/	Description: The parameter monitors the weighted average CO ₂ emission factor of fuel type i in year y. The fuel used by the genset is diesel. There is no instrument used to measure the data The value is based on IPCC default value or from fuel supplier, therefore no calibration required Verifier's action:	OK	OK										

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.		<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> <div> <input type="checkbox"/> In this context the following findings have been raised: <div> <input type="checkbox"/> </div> </div>		
<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/ /MM1/ /ER1/ /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 this entire monitoring period. </div> <div> <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 </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 </div> </div>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<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>		
18. NCV_{i,y}		Description: Weighted average net calorific value of fuel type i 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 / / IPCC / / ER1 /	<p><i>Description:</i></p> <p>The parameter monitors the weighted average net calorific value of 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> <hr/> <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> <hr/> <p><i>Conclusion:</i></p> <p>The monitoring of the parameter is in accordance to the approved PDD.</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
		<input type="checkbox"/>	In this context the following findings have been raised:		
		<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 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/ /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		
		<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 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		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)			Draft Concl.	Final Concl.
			<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"/>				

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
Flare 2									
Temperature Transmitter	Tt - T _{TT1,F2} , (Flare 2)	B839917437	Honeywell	±0.5% of span	11/10/2018	18/09/2019	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	TEG _m : Flare 2	B838901937	Honeywell	±0.5% of span	11/10/2018	18/09/2019		<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Pressure Transmitter	Pt - P _{PT2,F2} (Flare 2)	5584784	Rosemount	±0.25%	11/10/2018	-	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
		5916057	Rosemount	±0.25%	-	18/09/2019		<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Flow Meter	V _{t,wb} – FT1 - FT119 (Flare 2)	4972946 / FT119 (8102101)	Rosemount / Kingsway	± 0.5%	04/06/2018	-	24 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	V _{t,wb} – FT2 – FT140 (Flare 2)	5476627 / FT140 10031701	Rosemount / Kingsway	± 0.5%	04/06/2018	-	24 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Gas Analyser	V _{CH4,m,db} – Flare 2	31453	Guardian Plus (97460)	± 2% of full scale	04/06/2018		Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
		33542				18/09/2019		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 03/06/2019 To: 18/09/2019
Gas Engine 1 – GSSF1									
Temperature Transmitter	Tt - T _{TT1,GSSF1} (GSSF1 GE1)	100944768	PR Electronics	< ± 0.05% of span	04/06/2018	18/09/2019	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 03/06/2019 To: 17/09/2019

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Pressure Transmitter	Pt - P _{TT2, GSS F1} (GSSF1 GE1)	02492864	Rosemount	±0.25%	04/06/2018	18/09/2019	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 03/06/2019 To: 17/09/2019
Flow Meter	V _{t,wb} – FT3 (GSSF1 – GE1)	02768007 / FT161 (11011001)	Rosemount	±0.5%	05/01/2017	18/09/2019	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 04/01/2019 To: 17/09/2019
Gas Anaylser	V _{CH4,m,db} – GSSF1	G505823	Geotech Portable Analyser	±1.5%	25/10/2018		Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
		21905310261 000000001	Gasboard-3200	±2% FS	05/06/2019			<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Power Meters	EG _{PJ,y} : EL4 (GSSF1)	210225256	EDMI	Class 0.5s	06/01/2017	14/03/2019	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 05/01/2019 To: 13/03/2019
	EG _{PJ,y} : EL1 Back up	2167890035	Nemo 96HO+	Class 0.5S	25/01/2018		36 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	EG _{PJ,y} : EL5 (GSSF1 GE1 to Grid)	53099690 (Main)	ltron	Class 0.20	01/04/2011	-	5 years	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/01/2019 To: 31/01/2020
		53099691 (Check)			01/04/2011	-		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/01/2019 To: 31/01/2020
Gas Engine 2 & 3 – GSS1									
Temperature Transmitter	Tt - T _{TT1,GSS1} (GSS1 GE2 & GE3)	b527143837	Honeywell	±1.0%	11/10/2018	18/09/2019	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Pressure Transmitter	Pt - P _{PT2,GSS1} (GSS1 GE2 & GE3)	5916057	Rosemount	±0.1%	11/10/2018		Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
		5584784			11/10/2018	21/02/2020		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 10/10/2019

									To: 21/02/2020
Flow Meters	$V_{t,wb}$ – FT3 (GSS1 – GE2 & G3)	5988022	Rosemount	$\pm 0.5\%$	11/10/2018		24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: To:
Gas Analyser	$V_{CH4,m,db}$ – GSS1	14464	Edinburg Guardian NG	$\pm 2\%$ of full scale	27/12/2018		Annual	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
		33436	Guardian Plus			26/07/2019		<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Power Meters	$EG_{EC,y}$: EL6 (import)	2661930098	IME NEMO 96HDL	Class 1 $\pm 1\%$	25/01/2018		36 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	$EG_{PJ,y}$: EL9 – GSS1 generation (GE2)	211516862	EDMI	Class 0.5s ($\pm 0.5\%$)	25/01/2018		24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 24/01/2020 To: 31/01/2020
	$EG_{PJ,y}$: EL10 – GSS1 generation (GE3)	211516863	EDMI	Class 0.5s ($\pm 0.5\%$)	25/10/2018		24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 24/01/2020 To: 31/01/2020
	$EG_{PJ,y}$: EL11 – GSS1 GE2 & GE3 to grid	908705152 (Main)	EDMI	Class 0.5s ($\pm 0.5\%$)	06/12/2009	-	5 years	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/01/2019 To: 31/01/2020
		908705154 (Check)			06/12/2009	-		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/01/2019 To: 31/01/2020
Gas Engine 4 – GSS2									
Temperature Transmitter	$T_t - T_{TT1,GSS2}$ (GSS2 GE4)	ATT2100415 1000	Autrol	$\pm 0.1\%$	04/06/2018	18/09/2019	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 03/06/2019 To: 17/09/2019
Pressure Transmitter	$P_t - P_{PT2,GSS2}$ (GSS 2 GE4)	APT3200-4150998	Autrol	$\pm 0.075\%$ of span	04/06/2018	18/09/2019	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 03/06/2019 To: 17/09/2019

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Flow Meter	$V_{t,wb}$ – FT3 (GSS2 – GE4)	C150327	Combimass Binder	$\pm 2.5\%$ of reading + 0.2% of full scale	10/12/2018		24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: To:
Gas Analyser	$V_{CH_4,m,db}$ – GSS2	33542	Guardian Plus	$\pm 2\%$ of full scale	11/10/2018		Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
		14464	Guardian Ng			27/12/2018		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 26/12/2019 To: 31/01/2020
Power Meter	EG _{PJ,y} : EL12 – GSS2 GE4 Generation	213545834	EDMI	Class 0.5s ($\pm 0.5\%$)	08/08/2018		24 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	EG _{PJ,y} : EL13 – GSS2 GE4 to grid	81480576 (Main)	ltron	Class 0.2s ($\pm 0.2\%$)	14/02/2016	-	5 years	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
		81480578 (Check)			14/02/2016	-		<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.0	31 May 2019	Revision to: <ul style="list-style-type: none">• Ensure consistency with version 02.0 of the “CDM validation and verification standard for project activities” (CDM-EB93-A05-STAN);• Make structural and editorial improvements.
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).
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Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: project activities, verifying and certifying		