




**Verification and certification report form for
CDM project activities
(Version 04.0)**

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 21/02 – 20/140		
Scale of the project activity	<input checked="" type="checkbox"/> Large-scale <input type="checkbox"/> Small-scale		
Version number of the verification and certification report	1.0		
Completion date of the verification and certification report	28/05/2021		
Monitoring period number and duration of this monitoring period	Monitoring Period: 5 Duration: 01/04/2020 – 31/12/2020 (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	Renewable, 28/08/2016, 7 years		
Project participants	KUB-Berjaya Enviro Sdn. Bhd. (KBE) ACT Commodities B.V. BP Gas Marketing Limited ACT Financial Solutions B.V. Vert Conservation Pte Ltd.		
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	206,294 tCO ₂ e		
Certified amount of GHG emission reductions or GHG removals for this monitoring period	Amount before 1 January 2013	Amount from 1 January 2013 until 31 December 2020	Amount from 1 January 2021
	NA	234,298 tCO ₂ e	NA

Name and UNFCCC reference number of the DOE	TÜV NORD CERT GmbH UNFCCC Ref. No.: E-0022
Name, position and signature of the approver of the verification and certification report	Kunal Rami Final Approver 

SECTION A Executive summary

KUB-Berjaya Enviro Sdn. Bhd has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 5th 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 01/04/2020 – 31/12/2020 (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	-	Fairyland 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 CH ₄ and O ₂			
Gas Extraction System					
Manufacture		Q2 Engineering Sdn. Bhd., / Q2 A/S Denmark			
Type of Gas Extraction System		Gas Wells			
Gas Engine and Generator					
Manufacturer	-	MWM	MWM	MTU	MWM
Model		TCG 2020 V12	TCG 2020 V16	GB1948B5	TCG 2020 V20
Gross electricity output	MW	1.2	1.56	2	2
Voltage	KV	11	0.415	11	11
Number of genset	unit	1	2	1	2
Total elec. Output	MW	1.2	3.12	2	4

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 5th periodic verification of CPlI, 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: **234,298 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)	TUV NORD Malaysia	x	x	x	x
2.	Observer	EI	Baskram	Navin	TUV NORD Malaysia	-	x	-	-

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical Reviewer	EI	Lubanga	David	-
2.	Approver	IR	Rami	Kunal	TUV 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 _{j,h}	CDC	<input checked="" type="checkbox"/>	CAR E.6-6	<input checked="" type="checkbox"/>	Not material
EG _{PJ,y}	CDC	<input checked="" type="checkbox"/>	CAR E.6-7 CAR E.6-15	<input checked="" type="checkbox"/>	Not material
EG _{EC,y}	CDC	<input checked="" type="checkbox"/>	CL E.6-1; CAR E.6-8	<input checked="" type="checkbox"/>	Not material
f _y	SPL	<input type="checkbox"/>		<input type="checkbox"/>	Not material

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

T _{EG,m}	SPL	<input checked="" type="checkbox"/>	CAR E.6-9	<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"/>	CL E.6-2; CL E.6-5; CAR E.6-10; CAR E.7-1	<input checked="" type="checkbox"/>	Not material
V _{CH4,m,db}	SPL	<input checked="" type="checkbox"/>	CAR E.6-11; CAR E.7-2	<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.6-12	<input checked="" type="checkbox"/>	Not material
P _t (P _{PT2, F2} , P _{PT2, GSS1} , P _{PT2, GSS2})	SPL	<input checked="" type="checkbox"/>	CAR E.6-13	<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 checked="" type="checkbox"/>	CL E.6-3	<input checked="" type="checkbox"/>	Not material
V _{O2,t,db}	CDC	<input checked="" type="checkbox"/>	CL E.6-4	<input checked="" 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: 22/02/2021 & 23/02/2021				
No.	Activity performed on-site	Site location	Date	Team member
1.	Opening Meeting, MR, Plant Inspection, Equipment, Calibration, Document Review	Bukit Tagar	22/02/2021	Cheong, Chun Yuen (Robert); Baskram, Navin
2.	Review MR, ER calculations, Reporting	Kuala Lumpur	23/02/2021	

	and Closing Meeting			
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D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Mohd Zain	Zainal Fikry	KBE / CDM Manager /IM01/	22/02/2021	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/	22/02/2021 23/02/2021	Plant Inspection, Calibration reports, MR, Document review ER spreadsheet Reporting, Closing Meeting	
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/	23/02/2021	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
	V _{CH4,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 approach ¹⁾	Sampling Type ²⁾	Population – MP days	Sample Size - Days
	f _y	SiRS	AS	275	161

$T_{EG,m}$	SiRS	AS	275	161
$V_{t,wb}$	SiRS	AS	275	161
$V_{CH4,m,db}$	SiRS	AS	275	161
T_t ($T_{TT1,GSSF1}$, $T_{TT1,F2}$, $T_{TT1,GSS1}$, $T_{TT1,GSS2}$)	SiRS	AS	275	161
P_t ($P_{PT2, F2}$, $P_{PT2, GSS1}$, $P_{PT2, GSS2}$)	SiRS	AS	275	161

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	2	0
Compliance of the project implementation and operation with the registered PDD (E.3)	1	1	0
Post-registration changes (E.4)	0	3	0
Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines (E.5)	1	2	0
Compliance of monitoring activities with the registered monitoring plan (E.6)	5	10	0
Compliance with the calibration frequency requirements for measuring instruments (E.7)	0	2	0
Assessment of data and calculation of emission reductions or net removals (E.8)	2	5	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	9	25	0

SECTION E. Verification findings

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

Means of verification	<p>A draft monitoring report was submitted to the verification team by the project participants. The DOE has made this report publicly available prior to the start of the verification activities. No comments were received.</p> <p>By means of the UNFCCC website, it has been checked whether the latest applicable MR template CDM-MR-FORM has been used.</p> <p>Further, it has been checked whether the latest instructions for filling out the MR template have been followed. Every section has been checked against the respective guidance.</p>
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	The following sources of information have been used in this context:	
	<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 checked="" type="checkbox"/>	The respective requirements have widely been complied with; however, the following issues needed to be addressed in this context: CL E.3-1; CAR E.3-2; CAR E.1-1; CAR E.1.2; CAR E.3-3
Conclusion	<input type="checkbox"/>	No CARs / CLs have been raised in this context. No correction was required in the context. The project is in line with the respective requirements.
	<input checked="" type="checkbox"/>	The raised CARs / CLs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details, please refer to Appendix 4.
	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 after corrections.	

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	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
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	<p>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-E17/ • /IM01/ • /IM02/ • /unfccc/ 																
Findings	<table border="1"> <tr> <td data-bbox="467 813 539 896"><input checked="" type="checkbox"/></td> <td data-bbox="539 813 1431 896">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="467 896 539 1025"><input type="checkbox"/></td> <td data-bbox="539 896 1431 1025">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="467 1025 539 1093"><input checked="" type="checkbox"/></td> <td data-bbox="539 1025 1431 1093">In this context the following CARs, CLs have been raised: CL E.3-1; CAR E.3-2;</td> </tr> <tr> <td colspan="2" data-bbox="467 1093 1431 1137"><i>In case of phased implementation:</i></td> </tr> <tr> <td data-bbox="467 1137 539 1193"><input checked="" type="checkbox"/></td> <td data-bbox="539 1137 1431 1193">N/A</td> </tr> <tr> <td data-bbox="467 1193 539 1261"><input type="checkbox"/></td> <td data-bbox="539 1193 1431 1261">The phased implementation has correctly and in sufficient detail been described in the latest version of the PDD.</td> </tr> <tr> <td data-bbox="467 1261 539 1361"><input type="checkbox"/></td> <td data-bbox="539 1261 1431 1361">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="467 1361 539 1451"><input type="checkbox"/></td> <td data-bbox="539 1361 1431 1451">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.3-1; CAR E.3-2;	<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.3-1; CAR E.3-2;																
<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="467 1462 539 1541"><input type="checkbox"/></td> <td data-bbox="539 1462 1431 1541">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="467 1541 539 1641"><input checked="" type="checkbox"/></td> <td data-bbox="539 1541 1431 1641">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> </table> <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 corrections 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.												
<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.																

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 checked="" type="checkbox"/>	The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC		
	1	Title	The deviation is related to the usage of grid electricity by the gas engines 2 & 3 auxiliaries and gas supply system (GSS) are calculated since meter EL6 is not connected to capture the data.
		Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved
		Appr. date	11/09/2015
		Ref. No.	PRC-2467-002.
	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 checked="" type="checkbox"/>	The following corrections have been applied:		
	1	Issue:	The change is related to the internal use of power generated for the landfill operation was not successful and was not approved by the relevant authorities and the grid operator. This was due to technical constraints and deleted the onsite utilization from the PDD approved by EB on 09/05/2012
	2	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).

3	Issue:	
<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 checked="" 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	The revision is related to alternative measurement and handling of data during emergency conditions for methane content, flow meters and electricity meter.	
	Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved	
	Appr. date	09/05/2012	
	Ref. No.	NA	

	2	Title	The changes are related to the following: <ul style="list-style-type: none"> ▪ Increase of power generation approximately 3MW ▪ Installation of an additional pipeline and flare system equipped with skid mounted LFG gas blower to handle any excess LFG captured which is expected to be commissioned at the beginning of year 2014
		Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved
		Appr. date	09/09/2013
		Ref. No.	PRC-2467-001
	3	Title	The change is for non implementation of Flare No.3.
		Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved
		Appr. date	12/11/2015
		Ref. No.	PRC-2467-003
	4	Title	The change is related to the following: <ul style="list-style-type: none"> ▪ Increase of power generation approximately 2MW and ▪ Include diesel generator as backup for project activities during the power failure of the grid.
		Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved
		Appr. date	15/11/2016
		Ref. No.	PRC-2467-004
	5	Title	A revision for the monitoring plan during CPII MR1 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
6	Title	A revision for the monitoring plan during CPII MR3 due to increase in power generation from 5.5MW to 9.5MW with the addition of two (2) gas engines with an installed capacity of 2MW each.	
	Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved	
	Appr. date	PRC-2467-006	
	Ref. No.	12/06/2020	
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a PCfrMP, PCfMM or PCfSB has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		
<input type="checkbox"/>	An approval of the following PCfrMP, PCfMM or PCfSB is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.		
	1	Issue:	
	2	Issue:	
<input type="checkbox"/>	The following PCfrMP, PCfMM or PCfSB for which appendix 1 of the PS is applicable have been applied:		
	1	Issue:	
	2	Issue:	

E.4.6. Changes to the project design

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

<input checked="" type="checkbox"/>	No CoPD has been submitted to the UNFCCC prior to the current monitoring period		
<input checked="" type="checkbox"/>	The following CoPD have been approved or are under approval by the UNFCCC		
	1	Title	The changes are related to the following: - Increase of power generation approximately 3MW - Installation of an additional pipeline and flare system equipped with skid mounted LFG gas blower to handle any excess LFG captured which is expected to be commissioned at the beginning of year 2014
		Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved
		Appr. date	09/09/2013
		Ref. No.	PRC-2467-001
	2	Title	The change is for non-implementation of Flare No.3.
		Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved
		Appr. date	12/11/2015
		Ref. No.	PRC-2467-003
	3	Title	The changes are related to the following: - Increase of power generation approximately 2MW and - Include diesel generator as backup for project activities during the power failure of the grid.
		Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved
		Appr. date	15/11/2016
		Ref. No.	PRC-2467-004
	4	Title	During CPII MR3 an increase of power generation from 5.5MW to 9.5MW with the addition of two (2) gas engines with an installed capacity of 2MW each.
		Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved
		Appr. date	12/06/2020
		Ref. No.	PRC-2467-006
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		
<input type="checkbox"/>	An approval of the following CoPD is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.		
	1	Issue:	
	2	Issue:	
<input type="checkbox"/>	The following CoPD for which appendix 1 of the PS is applicable have been applied:		
	1	Issue:	
	2	Issue:	

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

<input checked="" type="checkbox"/>	N/A. The project activity is not an afforestation and reforestation project activities
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E.5. Compliance of the registered monitoring plan with 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 (ii) all applicable CDM Meth tools and the verification team has checked whether the MP is in compliance with the MP related requirements of the applied methodology / tools. The following sources of information have been used in this context: <ul style="list-style-type: none"> • /MR/ • /PDD1/ • /ACM1/ • /ESW/PER/TPL/PLEC/TMF/ • /unfccc/ 			
Findings	<input checked="" type="checkbox"/>	The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)		
	<input checked="" type="checkbox"/>	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
		4	Title (of the tool)	Project emissions from flaring
			Version	02.0.0
	MP compliance	<input checked="" type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input type="checkbox"/> N/A (for MP)		
5	Title (of the tool)	Tool to determine the mass flow of a greenhouse gas in a gaseous stream		
	Version	03.0		
	MP compliance	<input checked="" type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input type="checkbox"/> N/A (for MP)		
6	Title (of the tool)	Assessment of the validity of the original/current baseline and update of the		

			baseline at the renewal of the crediting period
		Version	03.0.1.0
		MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A (for MP)
	<input type="checkbox"/>	The breakdown of MP accordance of the applicable SB is as follows:	
		Title (of the SB)	
	Version		
		MP compliance	
	<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: CL E.5-1; CAR E.5-2; CAR E.5-3	
Conclusion	<input type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.	
	<input checked="" type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.	
	The applied methodology and prescribed applicable tools are consistent with the versions in UNFCCC website. No standardised baseline is applied. After corrections, the monitoring plan is appropriate and according to the approved revised PDD.		

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_{CH_4}	Global warming potential of CH_4	25	tCO_2e/tCH_4
	3	η_{PJ}	Efficiency of the LFG capture system that will be installed in the project activity	90%	Dimensionless
4	$\Phi_{default}$	Default value for the model correction factor to account for	0.75	-	

			model uncertainties																	
	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		-														
	6	F	Fraction of methane in the SWDS gas (volume fraction)	0.5		-														
	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		-														
	9	DOC _j	Fraction of degradable organic carbon in the waste type j (weight fraction)	<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)																		
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Garden, yard & park waste	20																			
Glass, plastic, metal, other inert waste	0																			
10	k _j	Decay rate for the waste type j	<table border="1"> <thead> <tr> <th colspan="2">Waste type j</th> <th>Tropical (MAT>20°C) dry (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</td> <td>0.17</td> </tr> </tbody> </table>		Waste type j		Tropical (MAT>20°C) dry (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	0.17	1/yr				
Waste type j		Tropical (MAT>20°C) dry (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	0.17																		

				putrescible garden & park waste		
			Rapidly Degrading	Food, food waste, sewerage sludge, beverage & tobacco	0.40	
11	SPEC _{flare}	Manufacturer's flare specifications for temperature, flow rate and maintenance schedule	Minimum and maximum operating temperature = 0 to 1,200°C Minimum and maximum inlet flow rate = 0 – 2,500 Nm ³ /h			Temperature - °C Flow rate or heat flux – kg/h or m ³ /h
12	TDL _{ky}	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/ • /ER1/ • /PDD1/ • /PS/ 						

	<ul style="list-style-type: none"> • /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"/> The following deviations from the parameters fixed ex-ante or at renewal of crediting period have been identified in the course of this verification: -
	<input checked="" type="checkbox"/> In this context the following CARs, CLs, FARs have been raised: CAR E.6-15
Conclusion	<input type="checkbox"/> No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input checked="" type="checkbox"/> The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	The data and parameters listed in the section D.1 of MR are cross-checked with the applied methodology, subscribed tools, approved revised PDD, ER and are consistent after correction made.

E.6.2. Data and parameters monitored

Means of verification	<p>During the verification all monitoring parameters listed in Section D.2 of MR were compared with section B.7.1 of the approved revised PDD have been verified with regard to the:</p> <ul style="list-style-type: none"> (i) appropriateness of the applied measurement / determination method, (ii) the correctness of the values applied for ER calculation, (iii) the accuracy, and applied QA/QC measures. <p>For this monitoring period, the results as well as the verification procedure are described parameter-wise in the project specific verification checklist, Appendix 5 table A-5.</p> <p>According to the approved revised PDD version 21.3 total LFG captured will be equal to LFG flared and combusted for electricity generation</p> <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>GSS1 (Gas Engine No. 2 and 3), GSS2 (Gas Engine No. 4), GSSF1 (Gas Engine 1) and GSS3 (Gas Engine 5 & 6)</p> <p>According to ACM0001, version 8.0³, 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, GSS3 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, GSS3 engines 5 & 6 and GSSF1 gas engine 1. The amount of landfill gas generated and captured that is channelled to GSS1, GSS2, GSS3 and GSSF1 is measured continuously by a flow meter for each system.</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.

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.

The raw data spreadsheets were reviewed to confirm no LFG temperature exceeds 60°C that the flow rate is required to be re-calculated. Therefore, for this monitoring period, no recalculation is required.

During this monitoring period, there were delays in calibration for pressure and temperature transmitters. Details of the assessment refer to parameter-wise in Appendix 5 table A-5.

Electricity Generation:

According to the approved revised PDD version 21.3, the total actual electricity uploaded to grid shall not exceed 6.6MW. The total maximum upload capacity of 6.6MW will be demonstrated using the actual electricity generated divided by the operation hours.

In the case of the total actual electricity uploaded to grid is more than 6.6MW, the additional MW will be deducted from the calculation. The additional MW (from any of the GEs) will be calculated by using the actual electricity generated and upload to grid divided by the operation hour (MWh).

During this monitoring period, the total power upload to the grid for Aug 2020, Oct 2020, Nov 2020 and Dec 2020 have exceeded 6.6MW. The PP has deducted the additional power generated by GE No. 4, GE No. 5, and GE No. 6 from the calculation. The net electricity generated for Aug 2020, Oct 2020, Nov 2020 and Dec 2020 is applied in the CER sheet

The PP calculated the total power upload to the grid by multiplying with the corresponding operating hours of the gas engines (hr). Applying this approach the months where the total power upload to the grid exceed 6.6MW are identified.

The calculation is demonstrated in table 2 Demo Power Upload tab of ER spreadsheet in accordance to the description above.

The additional power results are deducted from ER spreadsheet, tab BE_{EC} GE4 & GE5 & GE6, cells B19, B21, B22, and B23.

The baseline emissions for power generation is determined correctly and there is no over claim.

LFG:

According to CDM Project Standard for Project Activities, version 2.0, Section 8.3.5, Paragraph 241 (a) (i) (a), the CERs estimated (2019 – 2023) above for the increase capacity of 4MW gas engines is only claimed up to 20% (additional 1.1 MW) of the upload capacity stated in original registered PDD (5.5MW).

In the case of the total actual electricity uploaded to grid is more than 6.6MW, the additional flow will be deducted from the calculation. The additional flow (from any of the flow meters) will be calculated based on the MWh calculated in EG_{PJ,y} by using the estimated unit amount of m3 to produce the additional electricity generation.

During this monitoring period, the total power upload to the grid for Aug 2020, Oct 2020 to Dec 2020 have exceeded 6.6MW. The PP has deducted the additional LFG fed to gas engines from the ER spreadsheet. Refer tab BECH4_GSS 3, cells C29, C31, C32, and C33

The baseline emissions for methane is determined correctly and there is no over claim.

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.6-1; CL E.6-2; CAR E.6-6; CAR E.6-7; CAR E.6-8; CAR E.6-9; CAR E.6-10; CAR E.6-11; CAR E.6-12; CAR E.6-13, CAR E.7-1; CAR E.7-2; CL E.8-2; CAR E.8-3; CAR E..8-4; CAR E.6-15;
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 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/ • /ER1/ • /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_{CH4,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 considered conservative and appropriate since the number of samples taken are higher than required by 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.6-14
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 crosschecked 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/ • /CF51 to CF59/ 	
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"/>	In this context the following CARs, CLs, FARs have been raised: CAR E.5-2; CL E.7-1; CAR E.7-2; CAR E.7-3; CAR E.5-3
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 calibrations for all measuring instruments have been verified as listed in Appendix 6 of this report.</p> <p>Based on the details listed in appendix 6 the verification team could confirm that all installed monitoring equipment have been duly calibrated 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>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> $BE_{CH_4,y} = (1 - 0.1) \times (68.42 + 1,567.98 + 2,355.38 + 1,353.69 + 3,702.69) \times 25$ <p>$BE_{CH_4,y} = 207,884$ tCO₂e (difference due to the reason that the monthly $F_{CH_4,PJ,y}$ values have been rounded down before being summarized)</p> <p>$V_{CH_4,flare}$ is the quantity of LFG being combusted in the flare system add the amount of methane being flared 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 monitored 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</p>
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	<p>with the methane density and concentration. The methane concentration and density is continuously monitored by the minute in accordance to the project emissions from flaring version 02.0.0.</p> <p>There is no methane destruction requirements according to host country regulation, therefore, zero</p> <p>There is no thermal energy generated, therefore, zero</p> <p>Baseline emissions associated with electricity generation is represented with below equation:</p> $BE_{EC,y} = \sum kEC_{BL,k,y} \times EF_{EL,k,y} \times (1+TDL_{k,y})$ <p>Therefore,</p> $BE_{EC,y} = (5,155.95 + 9,179.37 + 22,664.87) \times 0.7146 \times (1-0.774) = 28,472 \text{ tCO}_2\text{e}$ <p>(rounded down)</p> <p>The baseline emission reduction for exporting the generated electricity to the grid is calculated using the monitored data of $EG_{PJ,y}$ multiply with the grid emission factor $EF_{EL,k,y}$ and average transmission loss $TDL_{k,y}$.</p> <p>The grid emission factor applied is an ex-ante value 0.7146 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>From the above baseline emissions equation,</p> $\begin{aligned} BE_y &= BE_{CH_4,y} + BE_{EC,y} + BE_{HG,y} + BE_{NG,y} \\ &= 207,884 + 28,472 + 0 + 0 \\ &= 236,356 \text{ tCO}_2\text{e (after round down to integral)} \end{aligned}$ <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	<table border="1"> <tr> <td data-bbox="467 1473 539 1832"><input type="checkbox"/></td> <td data-bbox="539 1473 1431 1832"> <p>The calculation of the baseline emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of baseline GHG emissions or baseline net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information has been identified.</p> </td> </tr> <tr> <td data-bbox="467 1832 539 1899"><input checked="" type="checkbox"/></td> <td data-bbox="539 1832 1431 1899">The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.</td> </tr> <tr> <td data-bbox="467 1899 539 1982"><input checked="" type="checkbox"/></td> <td data-bbox="539 1899 1431 1982"> <p>In this context the following CARs, CLs, FARs have been raised:</p> <p>CL E.8-2; CAR E.8-3; CAR E.8-4; CAR E.8-5; CAR E.8-6; CAR E.8-7</p> </td> </tr> </table>	<input type="checkbox"/>	<p>The calculation of the baseline emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of baseline GHG emissions or baseline net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information has been identified.</p>	<input checked="" type="checkbox"/>	The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.	<input checked="" type="checkbox"/>	<p>In this context the following CARs, CLs, FARs have been raised:</p> <p>CL E.8-2; CAR E.8-3; CAR E.8-4; CAR E.8-5; CAR E.8-6; CAR E.8-7</p>
<input type="checkbox"/>	<p>The calculation of the baseline emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of baseline GHG emissions or baseline net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information has been identified.</p>						
<input checked="" type="checkbox"/>	The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.						
<input checked="" type="checkbox"/>	<p>In this context the following CARs, CLs, FARs have been raised:</p> <p>CL E.8-2; CAR E.8-3; CAR E.8-4; CAR E.8-5; CAR E.8-6; CAR E.8-7</p>						
Conclusion	<table border="1"> <tr> <td data-bbox="467 1982 539 2049"><input type="checkbox"/></td> <td data-bbox="539 1982 1431 2049">No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.</td> </tr> </table>	<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"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.						

	<div style="border: 1px solid black; padding: 5px;"> <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. </div> <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>
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E.8.2. Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

Means of verification	<p>During the verification, the calculation of project GHG emissions has been checked. In detail the following has been verified:</p> <ul style="list-style-type: none"> • Transparency: It has been checked whether the calculation of project emissions is fully traceable and, where used, the Excel calculation provides all calculation formulae. • Parameter consistency: It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet. • Correctness: It has been checked whether the applied formulae and methods for calculating project emissions are in accordance with the monitoring plan and the approved methodology. • Completeness: It has been checked whether all calculations are complete and without omissions. <p>The project emissions are from the consumption of grid electricity and from fossil fuel use.</p> <p>Electricity meter EL6 records the grid electricity consumed by Flare 2 system, gas engines 1, 2, 3, 4, 5 & 6 auxiliaries, GSS1, GSS2, GSS3 and GSSF1 systems. The consumption is manually recorded daily, aggregated weekly and monthly.</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> <p>Therefore, $PE_y = 2,049 + 9$</p> <p>The project emissions for this period is 2,058 tCO₂e</p> <p>The verification team had reviewed the calculations presented are considered correct.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/
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	<ul style="list-style-type: none"> • /ER1/ • /DML2/ • /O1/
Findings	<input checked="" type="checkbox"/> <p>The calculation of the project emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of project GHG emissions or actual net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information have been identified.</p>
	<input type="checkbox"/> <p>The verification team has identified mistakes in the project emissions calculation or the underlying calculation approaches.</p>
	<input checked="" type="checkbox"/> <p>In this context the following CARs, CLs, FARs have been raised:</p> <p>CAR E.8-4</p>
Conclusion	<input type="checkbox"/> <p>No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.</p>
	<input checked="" type="checkbox"/> <p>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>
	<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 and consider correct after minor correction.</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/
Findings	<input checked="" type="checkbox"/> <p>No leakage emissions were to be considered ($LE = 0$).</p>
	<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</p>

		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.
		No leakage has to be considered according to the registered PDD since the technology used in this project is neither transferred to nor transferred from another activity.

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

Means of verification	<p>The verification team has checked if the MR includes a summary table of the emission reductions calculation specifying separately</p> <ul style="list-style-type: none"> - Total baseline emissions, - Total project emissions, - Total leakage, - Total emission reductions. <p>Section E.4 of MR demonstrate the summary of GHG emission reductions for the monitoring period and calculated according to the applied methodology ACM0001 version 18.0 as follows:</p> $\begin{aligned} \text{ER} &= \text{BE}_y - \text{PE}_y \\ &= 236,356 - 2,058 \\ &= \mathbf{234,298 \text{ tCO}_2\text{e}} \end{aligned}$ <p>To be conservative, the total baseline emissions for biogas extracted are rounded down as integer. Project emissions are rounded-up to the next integer.</p>	
Findings	<input checked="" type="checkbox"/>	Section E.4 of the MR includes in a summary table of the emission reductions calculation.
	<input checked="" type="checkbox"/>	The summary table specified the total baseline, project and leakage emissions as well as the total emission reductions separately.
	<input 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 checked="" type="checkbox"/>	During the verification, issues with impact on the ER calculation have been identified.
	<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: CL E.8-2; CAR E.8-3; CAR E.8-4; CAR E.8-5; CAR E.8-6; CAR E.8-7
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.
		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 after corrections.

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 values in the approved revised PDD.</p> <p>For this monitoring period from 01/04/2020 to 31/12/2020 (both days included) the project achieved 234,298 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 206,294 tCO₂e.</p> <p>Therefore, the actual emission reduction was 13.57% higher 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 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 checked="" 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"/>	<p>In this context the following CARs, CLs, FARs have been raised:</p> <p>CL E.8-2; CAR E.8-3; CAR E.8-4; CAR E.8-5; CAR E.8-6; CAR E.8-7</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.
	After corrections, the ex-ante estimated value was found to be proportionally lower than the ex-post determined value. The increase is due the ex-post CH ₄ content is higher than ex-ante and average genset operating hours is 83% compared to 90% of CER sheet 21 calculated during the PRC-2647-006 submitted	

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: 206,294 tCO₂e for 275 days</p> <p>Ex-post ERs: 234,298 tCO₂e for 275 days</p> <p>Difference: 28,004 tCO₂e</p> <p>The comparison is based on 275 days of the monitoring period.</p> <p>Section E.6 of the MR includes the justification for the ex-post ERs are higher than the ex-ante ERs by 13.57%.</p>	
Findings	<input 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 checked="" type="checkbox"/>	<p>For case 3: The PP has provided a related justification in the MR. The reasons for the increase are as follows:</p> <ol style="list-style-type: none"> 1. Higher ex-post CH₄ compared to ex-ante 2. Average operating hours of genset is 83%
	<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:

		CL E.8-2; CAR E.8-3; CAR E.8-4; CAR E.8-5; CAR E.8-6; CAR E.8-7
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 higher CERs in section E.6 of MR. It could be confirmed the justification for the higher 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>234,298</td> <td>234,298</td> </tr> </tbody> </table>			before 01/01/2013	from 01/01/2013	Sum	Emission reductions [tCO_{2e}]	0	234,298	234,298
		before 01/01/2013	from 01/01/2013	Sum							
Emission reductions [tCO_{2e}]	0	234,298	234,298								
<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: CL E.8-1; CL E.8-2; CAR E.8-3; CAR E.8-4; CAR E.8-5; CAR E.8-6; CAR E.8-7										
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 19/01/2021 to 22/02/2021 (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:			
		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 5th (CPII) periodic verification of the project: “**Landfill Gas Recovery and Utilization at Bukit Tagar Sanitary Landfill, Hulu Selangor in Malaysia**”, with regard to the relevant requirements for CDM project activities. The project reduces GHG emissions due to using landfill gas to generate renewable energy. This verification covers the period from 01/04/2020 to 31/12/2020 (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 5th (CPII) 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: **234,298 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.: 5

from: 01/04/2020

to: 31/12/2020

(including both days) as follows:

Emission reductions: **234,298 tCO₂e**

Puchong, 28/05//2021




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

CDM_001-VN00-F20-2019-10-19_m7.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) Technical Reviewer	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-VN00-F20-2019-10-19_m7.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 8.0	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 Revised Project Design Document for CDM project: “Landfill Gas Recovery and Utilization at Bukit Tagar Sanitary Landfill, Hulu Selangor in Malaysia” version 21.3 dated 29/01/2020	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 2.2, dated 26/03/2018	http://cdm.unfccc.int/Projects/DB/DNV-CUK1238680609.1/view	Other
17		/PRC/	Post Registration Report for CDM project “Landfill Gas Recovery and Utilization at Bukit Tagar Sanitary	http://cdm.unfccc.int/Projects/DB/DNV-	Other

No.	Author	Reference	Title	References to the document	Provider
			Landfill, Hulu Selangor in Malaysia" revision 1.2, dated 29/01/2020	CUK1238680609.1/view	
18	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 19/01/2021 Monitoring Report version 1.1 dated 27/04/2021 Monitoring Report version 1.2 dated 07/05/2021		PP
20	PP	/ER1/	ER spreadsheet version 1.0 dated 11/01/2021 ER spreadsheet version 1.1 dated 27/04/2021 ER spreadsheet version 1.2 dated 07/05/2021		PP
21	PP	/ER2/	Normalised Flow for GSSF1 PT2 and TT1 for period 17/09/2020 to 13/12/2020 ver 1.0 and 1.1		PP
	PP	/ER3/	Normalised Flow for GSS1 TT1 for period 17/09/2020 to 13/12/2020 version 1.0 and 1.1		PP
	PP	/ER4/	Normalised Flow for GSS2 PT2 and TT1 for period 17/09/2020 to 13/12/2020 version 1.0 and 1.1		PP
22	PP	/ER5/	Normalised Flow for GSS3 PT2 for period 01/04/2020 to 31/12/2020 Normalised Flow for GSS3 TT1 for period 01/04/2020 to 31/12/2020		PP
23	PP	/ER6/	Total Running Time of Flare No.2		PP
24	PP	/ER7/	TNB Bill from 01/02/2020 to 31/03/2020 for GE1, GE2 & GE3, GE4, GE5 & GE6		PP
25	PP	/ER8/	Average Operating Time of Gas Engine No.1, No.2, No.3, No.4, No. 5 and No. 6		PP
Calibration Certificates for Flare No.2					
26	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
27	CT Services	/CF12/	TEG _m – Flare 2 Temperature Transmitter Honeywell S/N: B838901937 calibration by CT Services. Calibration details refer to Appendix 6		Other

No.	Author	Reference	Title	References to the document	Provider
28	CT Services	/CF13/	Pt - P _{PT2,F2} (Flare 2) Pressure Transmitter Rosemount S/N: 5916057 calibration by CT Services. Calibration details refer to Appendix 6		Other
29	CT Services	/CF14/	V _{t,wb} FT1 Flare No.2 (FT119) Total Flow Transmitter Rosemount S/N: 4972946 calibration by CT Services. Calibration details refer to Appendix 6.		Other
30	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
31	CT Services	/CF16/	V _{CH4,m,db} – Flare 2 CH ₄ Gas Analyser (Guardian) S/N: 33542 calibration by CT Services. Calibration details refer to Appendix 6		Other
32	Air Products	/CF17/	Span Gas (Nitrogen and Methane) dated: 10/07/2013 valid until 10/07//2023 Span Gas (Nitrogen and Carbon Dioxide) dated: 10/03/2016 valid until 10/03/2026		Other
Calibration Certificates for GSSF1 – Gas Engine 1					
33	CT Services	/CF21/	Tt - T _{TT1,GSSF1} (GSSF1 - GE1) Temperature PR Electronics S/N: 100944768 calibration by CT Services. Calibration details refer to Appendix 6		Other
34	CT Services	/CF22/	Pt - P _{PT2,GSSF1} (GSSF1 – GE1) Pressure Transmitter Rosemount S/N: 02492864 calibration by CT Services. Calibration details refer to Appendix 6		Other
35	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
36	CT Services	/CF24/	V _{CH4,m,db} – GSSF1 CH ₄ Gas Analyser Gasboard-3200 CH ₄ S/N: 21905310261000000001, calibration by Hubei Cubic Ruiyi Instrument Co. Ltd and CT Services. Details refer to Appendix 6		Other
37	RA Power	/CF25/	EG _{PJ,y} : EL4 (GSSF1) Power Meter (EDMI Limited) total electricity generated by gas engine no. 1 S/N: 210225256, calibration by RA Power System Protection.		Other

No.	Author	Reference	Title	References to the document	Provider
			Calibration details refer to Appendix 6		
38	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		Other
39	RA Power	/CF27/	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.		Other
Calibration Certificates for GSS1 Gas Engines No.2 and No.3					
40	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
41	CT Services	/CF32/	Pt - P _{PT2,GSS1} (GSS1 - GE 2 & 3) Pressure Transmitter Rosemount S/N: 5584784 calibration by CT Services. Calibration details refer to Appendix 6		Other
42	CT Services	/CF33/	V _{t,wb} – FT3 (GSS1 – GE2 & 3) Flow Transmitter Rosemount S/N: 5988022, calibration by CT Services. Calibration details refer to Appendix 6		Other
43	Gas Master	/CF34/	GSS1 CH ₄ Gas Analyser (Guardian Plus) S/N: 33436 calibration by One Gasmaster Sdn Bhd Calibration details refer to Appendix 6		Other
44	IME	/CF35/	E _{GE,y} : EL6 Import Power Meter (IME) S/N: 2661930098 calibration by IME. Calibration details refer to Appendix 6		Other
45	RA System	/CF36/	E _{G PJ,y} : EL9 – GSS1 GE2 generation Power Meter (EDMI Limited) S/N: 211516862 calibration by RA Power System on 13/05/2015		Other
46	RA System	/CF37/	E _{G 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

No.	Author	Reference	Title	References to the document	Provider
47	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 GSS2 Gas Engine No. 4					
48	CT Services	/CF41/	Tt - T _{TT1,GSS2} (GSS2 - GE4) Temperature Transmitter Autrol S/N: ATT21004151000 calibration by CT Services. Calibration details refer to Appendix 6		Other
49	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
50	Binder	/CF43/	V _{t,wb} – FT3 (GSS2 – GE4) Flow Transmitter Combimass S/N: C150327 calibration by Binder. Calibration details refer to Appendix 6		Other
51	CSI	/CF44/	V _{t,wb} – FT7 (GSS2 – GE4) Flow Transmitter SUTO (CS-iTEC) S/N: 5215-8535 calibration by CSI Tech. Calibration details refer to Appendix 6		Other
52	One Gasmaster	/CF45/	GSS2 CH ₄ Gas Analyser Edinburgh Guardian Ng S/N: 14464 calibration by One Gasmaster. Calibration details refer to Appendix 6		Other
53	RA System	/CF46/	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
Calibration Certificates for GSS3 Gas Engine No. 5 & 6					
54	Status	/CF51/	Tt - T _{TT1,GSS3} (GSS3) Temperature Transmitter Status Instrument (SEM 710) S/N: 155132 - 0001 calibration by Status Automation Technologies Sdn.Bhd. Calibration details refer to Appendix 6		Other
55	Endress & Hauser	/CF52/	Pt - P _{PT2,GSS3} (GSS3) Pressure Transmitter Endress+ Hauser S/N: N7014C21129 calibration Endress + Hauser India. Calibration details refer to Appendix 6		Other

No.	Author	Reference	Title	References to the document	Provider
56	Emerson & CT Services	/CF53/	V _{t,wb} – FT3 (GSSs) Flow Transmitter Rosemount S/N: 5988022 calibration by Emerson Process Management and CT Services. Calibration details refer to Appendix 6		Other
57	Binder	/CF54/	V _{t,wb} – FT8 Flow Transmitter Binder S/N: C180382, calibration by Binder Group. Calibration details refer to Appendix 6		Other
58	Binder	/CF55/	V _{t,wb} – FT8 Flow Transmitter Binder S/N: C180381, calibration by Binder Group. Calibration details refer to Appendix 6		Other
59	One Gasmaster	/CF56/	V _{CH4,m,db} – GSS3 CH ₄ Gas Analyser Edinburgh Sensors S/N: 17167 calibration by One Gasmaster Sdn Bhd. Calibration details refer to Appendix 6		Other
60	EDMI	/CF57/	EG _{PJ,y} : EL14 – GSS3 Power Meter Mk6N Genius EDM I S/N: 218287221, calibration by EDM I Electronics Sdn. Bhd. Calibration details refer to Appendix 6		Other
61	EDMI	/CF58/	EG _{PJ,y} : EL15 – GSS3 Power Meter Mk6N Genius EDM I S/N: 218287222, calibration by EDM I Electronics Sdn. Bhd. Calibration details refer to Appendix 6		Other
62	TNB	/CF59/	EG _{PJ,y} : Power meter EL16 GSS3 Main Meter to grid Genius (MK6E), S/N: 918703332 calibration by TNB. Power Meter EL16 GSS3 check meter to grid Genius (MK6E), S/N: 918703333 calibration by TNB. Letter from TNB dated 22/02/201 for confirmation of calibration on 11/05/2019 Calibration details refer to Appendix 6		Other
Daily Manual Log Sheet					
63	PP	/DML1/	Daily Monitoring Log Sheet for Flare No.2 from 01/04/2020 to 31/12/2020.		PP
64	PP	/DML2/	Daily Monitoring Log Sheet for Gas Engines No.1, No.2, No.3, No.4, No.5 and No.6 (power meter		PP

No.	Author	Reference	Title	References to the document	Provider
			readings) from 01/04/2020 to 31/12/2020.		
65	PP	/DML3/	Daily Monitoring Log Sheet for Gas Engines No.2 and No.3 (flow meter readings) from 01/04/2020 to 31/12/2020.		PP
66	PP	/DML4/	Daily Monitoring Log Sheet for Gas Engine No.4 (flow meter readings) from 01/04/2020 to 31/12/2020.		PP
67	PP	/DML5/	Daily Monitoring Log Sheet for Gas Engine No.1 (flow meter readings) from 01/04/2020 to 31/12/2020.		PP
68	PP	/DML6/	Daily Monitoring Log Sheet for Gas Engine No.5 and No.6 (flow meter readings) from 01/04/2020 to 31/12/2020.		PP
Maintenance & Service Programme & Records					
69	PP	/MS1/	Yearly Maintenance and repair programme for landfill Apr and Dec 2020		PP
70	PP	/MS2/	Service and Maintenance Record for LFG for monitoring period 01/04/2019 to 31/12/2020		PP
71	PP	/MS3/	Service and Maintenance Record for Gas Engine No. 1 for monitoring period from 01/04/2020 to 31/10/2020		PP
72	PP	/MS4/	Service and Maintenance Record for Gas Engine No.2 monitoring period from 01/04/2020 to 31/12/2020		PP
73	PP	/MS5/	Service and Maintenance Record for Gas Engine No. 3 monitoring period from 01/04/2020 to 31/12/2020		PP
74	PP	/MS6/	Service and Maintenance Record for Gas Engine No. 4 for monitoring period from 01/04/2020 to 31/12/2020		PP
75	PP	/MS7/	Service and Maintenance Record for Gas Engine No. 5 for monitoring period from 01/04/2020 to 31/12/2020		PP
76	PP	/MS8/	Service and Maintenance Record for Gas Engine No. 6 for monitoring period from 01/04/2020 to 31/12/2020		PP
Management Meeting Records					
77	PP	/MMR1/	CDM Management Meeting No. 18, Minutes of Meeting dated 22/07/2020		PP
QA/QC Manual					

No.	Author	Reference	Title	References to the document	Provider
78	PP	/MM1/	Monitoring Manual version 8.0 dated 30/06/2020		PP
Internal Audit					
79	PP	/IA/	Internal Audit dated 30/12/2020		
Shutdown and Downtime Records					
80	PP	/SDR1/	Flare 2 system from 01/04/2020 – 31/03/2020		PP
81	PP	/SDR2/	Gas Engine No. 1 from 01/02/2020 – 31/12/2020		PP
82	PP	/SDR3/	Gas Engine No. 2 from 01/02/2020 – 31/03/2020		PP
83	PP	/SDR4/	Gas Engine No.3 from 01/04/2020 – 31/12/2020		PP
84	PP	/SDR5/	Gas Engine No. 4 from 01/04/2020 – 31/12/2020		PP
85	PP	/SDR6/	Gas Engine No. 5 from 01/04/2020 – 31/12/2020		PP
86	PP	/SDR7/	Gas Engine No. 6 from 01/04/2020 – 31/12/2020		PP
Raw Data					
87	PP	/FRD2/	Flare No.2 LFG raw data for monitoring period from 01/04/2020 – 31/12/2020		PP
88	PP	/GSS1RD/	Gas Engines No. 2 and No. 3 raw data for monitoring period from 01/04/2020 – 31/12/2020		PP
89	PP	/GSS2RD/	Gas Engine No. 4 raw data for monitoring period from 01/04/2020 – 31/12/2020		PP
90	PP	/GSS3RD/	Gas Engine No. 5 & 6 raw data for monitoring period from 01/04/2020 – 31/12/2020		PP
91	PP	/GSSF1RD/	Gas Engine 1 raw data for monitoring period from 01/04/2020 – 31/12/2020		PP
Others					
92	PP	/O1/	Monthly Tests and fuel records		PP
93	PP	/O2/	Environmental Monitoring Report 2rd to 4 th Quarter 2020		PP
94	PP	/O3/	Average O ₂ for		PP
95	PP	/O4/	Portable CH ₄ Analyser Geotech GA5000 Calibration Cert		PP
96	PP	/O5/	Monthly Power Meter Reading April to Dec 2020		PP
97	PP	/O6/	95 CI for Unit Amount of LFG to generate 1MW Power		PP
98	PP	/O7/	95_ CI for Manual CH ₄		PP

No.	Author	Reference	Title	References to the document	Provider
99	PP	/O8/	Manual Record of FT7-FT9 MPE Apr-Dec 2020		PP
100	PP	/O9/	95_ CI CO2 Manual Record (Apr 2020 - Dec 2020)		PP
101	PP	/O10/	Demonstration TT1 more than 60°C		PP
102	PP	/O11/	CER_ver21_61_ CH4		PP
103	Gasmaster	/O12/	Service report KUB-Berjaya Guardian Plus_33542_17122020		Other
Equipment & Instruments					
104	MWM, MTU	/E1/	Biogas Genset Technical Data from MWM undated for GE1, GE2, GE3, GE5 & GE6 Biogas Genset Technical Data for MTU for GE 4		Other
105	Beijing Fairyland	/E2/	Enclosed Biogas Flaring System Technical Specifications by Beijing Fairyland Environmental Technology Co. Ltd for flare 2		Other
106	Rosemount / Binder / CSI Tech	/E3/	Biogas Flow meter Transmitter Rosemount V-Cone for Flare 2 FT1 and FT2; GSS1 FT3; GSSF1 FT3 and GSS3 FT3 Binder COMBIMASS for GSS2 FT3; GSS3 FT8 & FT9 CSI Tech for GSS2 FT7		Other
107	Edinburgh, Cubic Ruiyi	/E4/	Methane Gas Analyser Guardian Plus for Flare 2; GSS1 Edinburgh Guardian NG for GSS2, GSS3 Cubic- Ruiyi Dashboard for GSSF1		Other
108	PR, Honeywell, Autrol, Status	/E5/	Temperature Transmitter PR Electronics for GSSF1 Honeywell for Flare 2 TT1 and TT3; GSS1 TT1 Autrol ATT2100 for GSS2 TT1 Status Instrument SEM 710 - TT1 for GSS3		Other
109	Rosemount , Autrol, E&H	/E6/	Pressure Transmitter Rosemount for Flare 2 PT2; GSS1 PT2, GSSF1 PT2 Autrol APT3200 for GSS2 PT2 Endress + Hauser for GSS3 PT2		Other
110	IME	/E7/	EL1 IME Nemo backup meter for GSSF1 GE1		Other

No.	Author	Reference	Title	References to the document	Provider
111	EDMI	/E8/	Power Meters EL4 for GSSF1 GE1 EL9 & EL10 for GE3 & GE4 EL12 for GE4 EL14 & EL15 for GE5 & GE6		Other
112	IME	/E9/	EL6 grid to project power meter Calibration frequency documentation for IME meters		Other
113	TNB	/E10/	EL5 TNB Meters Details and Calibration Labels for GSSF1 GE1		Other
114	TNB	/E11/	EL11 TNB main and check meters specification calibration label for GSS1 GE2 & 3		Other
115	TNB	/E12/	EL16 TNB main and check meters calibration labels for GE4, 5 & 6		Other
116	PP	/E13/	Diesel Gen-set Specification		PP
117	PP	/E14/	Diesel Fuel Gauge		PP
118	PP	/E15/	Total Engine Management System		PP
119	Geotech	/E16/	Technical specifications for Geotech portable gas analyser (GA3200)		Other
120	PP	/E17/	References of equipment power for engine 2 & 3, 4, 5, 6, GSS1 GSS2 and GSS3 for electricity consumption		PP
121		/dnaMY/	http://www.nre.gov.my/English/Profile/DivisionInformation/Pages/Environmental%20Management%20and%20Climate%20Change.aspx	DNA Malaysia	
122		/unfccc/	http://cdm.unfccc.int	UNFCCC	
123		/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.3-1	Section no.	B.1	Date:	23/01/2021
Description of CL					
MR version 1.0, Section B.1: Clarification request for the superscript for date of commissioning in the table relevant dates for the project activities.					
Project participant response (1st round)				Date	14/04/2021
The superscript for date of commissioning in the table for the project activities has been updated.					
Documentation provided by project participant (1st round)					
<input checked="" type="checkbox"/>	Changes in MR	Section(s):	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:	16/04/2021
MR version 1.1, Section B.1: The superscripts are corrected and link to the footnote below the page					
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.5-1	Section no.	C	Date:	23/02/2021
Description of CL					
MR version 1.0, Section C, Table 2: Clarification for CDM ID EG _{PJ,y} (EL _{LFG,y}) for recording frequency and data archive.					
Project participant response (1st round)				Date	14/04/2021
The recording frequency and data archive information were updated for CDM ID EG _{PJ,y} (EL _{LFG,y}) in Table 2.					
Documentation provided by project participant (1st round)					
<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:	16/04/2021
MR version 1.1, Section C, Table 2: CDM ID EG _{PJ,y} (EL _{LFG,y}) for recording frequency and data archive updated according to the current situation.					
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.6-1	Section no.	D.2	Date:	23/02/2021
Description of CL					
MR version 1.0, Section D.2, Parameter EG _{PJ,y} : Clarification request on how the total power upload to the grid for Aug 2020, Oct 2020, Nov 2020 and Dec 2020 exceeded 6.6MW is determined.					
In addition, how much of power uploaded for April to July and September 2020 that does not exceed 6.6MW.					
Project participant response (1st round)				Date	14/04/2021
The description on how the total power upload to the grid (MW) is determined and the identification of the periods whereby the amount have exceeded 6.6MW, i.e. Aug 2020, Oct 2020, Nov 2020 and Dec 2020 have been incorporated in the Monitoring Report.					
The total power upload to the grid (MW) for the whole monitoring period, including the power uploaded for April to July, and September 2020 that does not exceed 6.6MW, detailed workings and calculations are included in the CER calculation sheet Demo Power Upload tab, table 2.					
Documentation provided by project participant (1st round)					
<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): Demo Power Upload	New version No.: 1.1		
<input type="checkbox"/>	Other:				
DOE assessment (1st round)				Date:	15/04/2021

MR version 1.1, Section D.2, Parameter $EG_{PJ,y}$: The total power uploaded to the grid for August, Oct, Nov and Dec 2020 is now described in CER calculation sheet, version 1.1 under 'Demo Power Upload' tab Tables 1 & 2 on the Power Upload to Grid (MW)) is calculated based on the approved revised PDD version 21.3. The calculations are verified as appropriate. The results are added in the revised MR section E.1.

From the calculations in table 1 & 2, April to July and September 2020 power uploaded does not exceed 6.6MW for each month. Therefore, meets the approved revised PDD requirements

Conclusion

Tick the appropriate checkbox

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

CL ID	E.6-2	Section no.	D.2	Date:	23/02/2021
Description of CL					
MR version 1.0, Parameter $V_{t,wb}$: Clarification request on the amount of gas sent to the gas engines for power generation does not exceed 6.6MW.					
Project participant response (1st round)					Date
					14/04/2021
The amount of gas sent to the gas engines for power generation does not exceed 6.6MW, except for Aug 2020, Oct 2020, Nov 2020, and Dec 2020. This is explained in the MR and demonstrated in the CER calculation sheet, version 1.1 under 'Demo Power Upload' tab, table 3. The unit amount of the biogas fed to engines from Jan 2020 – Dec 2020 was calculated in table 3. 95% CI was performed for the weighted average unit amount for the LFG (Nm ³ /hr) to generate 1MW power (refer to O7 - 95% CI for Unit Amount of LFG to generate 1MW Power_280121). The range of the unit amount is 597.5 Nm ³ /hr to 657.7 Nm ³ /hr. The lower value of the unit amount (597.5 Nm ³ /hr) was compared with the unit amount obtained from manufacturer specification (569.6 Nm ³ /hr and 762.7 Nm ³ /hr). The lower unit amount which is the manufacturer specification 569.6 Nm ³ /hr was applied in the calculation.					
Documentation provided by project participant (1st round)					
<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): Demo Power Upload		New version No.: 1.1	
<input checked="" type="checkbox"/> Other: O7 - 95% CI for Unit Amount of LFG to generate 1MW Power_280121					
DOE assessment (1st round)					Date:
					16/04/2021
MR version 1.1, Parameter $V_{t,wb}$: The amount of gas sent to the gas engines for power generation exceeds 6.6MW for the month of August, October, November and December 2020 with the calculation demonstrated in CER calculation sheet, version 1.1 under 'Demo Power Upload' tab Table 3: Demonstration on LFG Fed to Engines (Nm ³) and table 4 describe the biogas consumption rate as per engine design.					
Table 3: The PP applied data from Jan to Dec 2020 for LFG fed to each engine to obtain the total gas consumed by the engines, weighted average of LFG to generate 1 MWh of power by each engine. With the average working hours for all engines, the gas required to generate 6.6MW of electricity for each month is calculated and compared with the actual amount of gas fed to the gas engines in operation for the month. The amount of gas fed to the gas engines will be deducted from the calculated amount of gas to generate 6.6MW with the difference whether is more or less. When the amount of gas fed to the gas engines are higher than the calculated amount of gas, the calculated amount will be applied in BECH calculation. When the amount of gas fed to the gas engine is lower than the calculated amount, the amount of gas fed will be applied in BECH calculation.					
Table 4 describes the approach in determining the gas consumption of the gas engines based on manufacturer specification that applied to the calculation in table 3.					
The input data in tables 3 and 4 are verified for correctness.					
The data from table 3 are applied appropriately in the BECH and ER calculations are verified.					
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.6-3	Section no.	D.2	Date:	23/02/2021
Description of CL					
MR version 1.0, Section D.2, Parameter $V_{CO_2,t,db}$: Clarification request on how the zero applied value is determined.					

Project participant response (1st round)		Date	14/04/2021
<p>The correct value of the monitored parameter, $V_{CO_2,t,db}$ is 37.06% and not 0%. This is calculated by using the manual records and applying 95% CI to these data to calculate the lower bound value. This lower bound value is used as a conservative approach. The explanation and calculations is also provided in a separate Excel document 'O9 - 95% CI CO₂ Manual Record (Apr 2020 - Dec 2020)'.</p>			
Documentation provided by project participant (1st round)			
<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2	New version No.: 1.1	
<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:	
<input checked="" type="checkbox"/> Other: O9- 95% CI CO ₂ Manual Record (Apr 2020 - Dec 2020)			
DOE assessment (1st round)		Date:	16/04/2021
<p>MR version 1.1, Section D.2, Parameter $V_{CO_2,t,db}$: The PP has corrected the value as 37.06% based on the data from the manual records and recalculate by applying 95% CI to obtain the lower bound value after applying MPE to the data due to delay in calibration of portable gas analyser.</p> <p>The MPE applied is the instrument accuracy error of 0.5% since calibration error is 0.25%.</p> <p>The data and calculation is reviewed for correctness.</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.6-4	Section no.	D.2	Date:	23/02/2021
Description of CL					
MR version 1.0, Section D.2, Parameter $V_{O_2,t,db}$: Clarification request on how the applied value is determined.					
Project participant response (1st round)				Date	14/04/2021
<p>The value of the monitored parameter, $V_{O_2,t,db}$ is calculated by using the raw data which is logged in every minute. These data are further processed to calculate the daily average value and later on, the yearly average value. The explanation and calculations is also provided in a separate Excel document 'O3 – Average O2'.</p>					
Documentation provided by project participant (1st round)					
<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2	New version No.: 1.1			
<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:			
<input checked="" type="checkbox"/> Other: O3 – Average O2					
DOE assessment (1st round)				Date:	16/04/2021
<p>MR version 1.1, Section D.2, Parameter $V_{O_2,t,db}$: The PP has explained the data are derived from the raw data captured when the flare is in operation. The captured data is processed to calculate the daily average value as describe in the spreadsheet submitted.</p> <p>It could conclude the data is appropriately determined.</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.6-5	Section no.	D.2	Date:	23/02/2021
Description of CL					
MR version 1.0, Parameter $V_{t,wb}$: Clarification request for the calibration frequency of 5 years for GE5 & GE6 flow meters FT8 and FT9 respectively.					
Project participant response (1st round)				Date	14/04/2021
<p>The calibration frequency for GE5 & GE6 flow meter FT8 and FT9 was revised to 24 months. GE5 & GE6 backup flow meters, i.e. FT8 and FT9 flow meters were calibrated on 06/04/2021. The calibration frequency of the flow meters was revised to 24 months, and the percentage error is 1.0%. The equipment accuracy error for FT8 and FT9 is 2.6% which is higher than the equipment calibration error. Due to delay in calibration, the maximum permissible error of $\pm 2.6\%$ which is the equipment accuracy error was applied to FT8 and FT9 from 25/07/2020 - 31/12/2020 as a conservative approach. FT8 and FT9 flow meters are backup meters and will be used in case where GSS3_{FT3} flow meter malfunctions. Hence, during this monitoring period, the application of maximum permissible error had no impact to the CER sheet since there is no malfunction of GSS3_{FT3}.</p>					
Documentation provided by project participant (1st round)					
<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2	New version No.: 1.1			

<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
<input checked="" type="checkbox"/> Other: O8 - Manual Record of FT7-FT9 MPE_Apr-Dec 2020 O8 - Manual Record_FT7-FT9_Apr - Dec 2020		
DOE assessment (1st round)		Date: 16/04/2021
<p>MR version 1.1, Parameter $V_{t,wb}$: The PP has revised the calibration frequency to 24 months for GE5 & GE6 flow meters FT8 and FT9 respectively and recalibrated on 03/04/2021 with a calibration error of 1.0%. Since the calibration error is lower than the instrument accuracy error of 2.6%, the MPE applied to the measured data in accordance to VVS, version 2.0, paragraph 366 (a).</p> <p>Both the flow meters are back-up meters. The delay in calibration and the MPE applied to the data has no impact to the ERs.</p> <p>The daily records are verified that FT3 is operating during 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.8-1	Section no.	E.6	Date:	23/02/2021
Description of CL					
MR version 1.0, Section E.6: Clarification request for the increase of CH ₄ % that increase in ERs for the monitoring period.					
Project participant response (1st round)					Date 14/04/2021
<p>Section E.6 demonstrate on the increase in achieved emission reductions. The %CH₄ for the monitoring period is the actual measurement of %CH₄ (61%) which is higher compared to the default value of %CH₄ of 50% applied in CER sheet, version 21 and PDD, version 21.3. As a result, the actual CER claimed for this monitoring period is 10.6% more compared to the CER estimated in PDD.</p> <p>Demonstration was done to apply %CH₄ reading of 61% in the CER sheet, version 21. It has resulted in a difference of only 2% in the CER amount. It is normal to have difference in results when using the First Order Decay (FOD) model as compared to the actual measurement. FOD model uses the waste composition data and default value to estimate the CER while on the other hand, the actual measurement uses the %CH₄ and gas flow to estimate the CER (O15 - CER_ver21_61% CH₄).</p>					
Documentation provided by project participant (1st round)					
<input checked="" type="checkbox"/> Changes in MR	Section(s):		New version No.: 1.1		
<input type="checkbox"/> Changes in XLS	Worksheet(s):		New version No.:		
<input checked="" type="checkbox"/> Other: O11 - CER_ver21_61% CH ₄					
DOE assessment (1st round)					Date: 16/04/2021
MR version 1.0, Section E.6: The PP has explained for the increase of CH ₄ % that increase in ERs for the monitoring period is due to the actual measured CH ₄ for the monitoring period is 61% as compared to ex-ante value in PDD is 50%.					
The submitted spreadsheet is verified for the measured value.					
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed				

CL ID	E.8-2	Section no.	ER 1 spreadsheet	Date:	23/02/2021
Description of CL					
ER1 spreadsheet version 1.0:					
<ol style="list-style-type: none"> Oct 20 Main, Nov 20 Main and Dec 20 Main Tabs: Clarification on the constant CH₄ data for GSS1 Aug 20 Main and Sept 20 Main tabs: Clarification on the constant CH₄ data for GSS2 June 20 Main, July 20 Main, Aug 20 Main and Sept 20 Main tabs: Clarification on the constant CH₄ data for GSS3 Apr 20 Main, Aug20 Main and Sep20 Main tabs: The LFG temperature for GSS3 during some days exceed 60°C. Calcification request for the recalculated data according to the note below the table. Tab Observation: Clarification request for the data in the tab 					
Project participant response (1st round)					Date 14/04/2021

1. Due to malfunction of the installed GSS1 CH4 analyser from 24/09/2020 - 31/12/2020, manual record of CH4 from portable analyser was used in the CER calculation. 95% CI is applied to the manual record of CH4 with a maximum permissible error of 0.55% which is the equipment calibration error as the portable CH4 analyser was only calibrated on 01/02/2021. Hence, the CH4 data for GSS1 in Oct 2020, Nov 2020 and Dec 2020 are constant due to the application of lower bound value from the 95% CI analysis and MPE as a conservative approach (O8 - 95% CI for Manual CH4_020221).
2. Due to malfunction of the installed GSS2 CH4 analyser from 12/08/2020 - 19/09/2020, manual record of CH4 from portable analyser was used in the CER calculation. 95% CI is applied to the manual record of CH4 with a maximum permissible error of 0.55% which is the equipment calibration error as the portable CH4 analyser was only calibrated on 01/02/2021. Hence, the CH4 data for GSS2 in Aug 2020 and Sept 2020 are constant due to the application of lower bound value from the 95% CI analysis and MPE as a conservative approach (O8 - 95% CI for Manual CH4_020221).
3. Due to malfunction of the installed GSS3 CH4 analyser from 05/06/2020 - 19/09/2020, manual record of CH4 from portable analyser was used in the CER calculation. 95% CI is applied to the manual record of CH4 with a maximum permissible error of 0.55% which is the equipment calibration error as the portable CH4 analyser was only calibrated on 01/02/2021. Hence, the CH4 data for GSS3 in June 2020, July 2020, Aug 2020 and Sept 2020 are constant due to the application of lower bound value from the 95% CI analysis and MPE as a conservative approach (O7 - 95% CI for Manual CH4).
4. Apr 20 Main, Aug20 Main and Sep20 Main tabs: During the periods where the LFG temperature for GSS3 exceeded 60°C, it has been demonstrated that the data has been recalculated according to the note below the table in the raw data Excel sheets (O10 - Demonstration TT1 more than 60°C).
5. The 'Observation' tab in the CER calculation sheet has been removed.

Documentation provided by project participant (1st round)

<input type="checkbox"/>	Changes in MR	Section(s):	New version No.:
<input checked="" type="checkbox"/>	Changes in XLS	Worksheet(s): Apr 20 Main, June 20 Main, July 20 Main, Aug 20 Main, Sept 20 Main, Oct 20 Main, Nov 20 Main, Dec 20 Main and Observation	New version No.: 1.1
<input checked="" type="checkbox"/>	Other: O7 - 95% CI for Manual CH4 O10 - Demonstration TT1 more than 60°C		
DOE assessment (1st round)			Date: 16/04/2021

ER1 spreadsheet version 1.1:

1. Oct 20 Main, Nov 20 Main and Dec 20 Main Tabs: PP explain due to malfunction of GSS1 gas analyser from 24/09/2020 to 31/12/2020, the portable gas analyser is used to measure manually. The results are calculated using a 95% CI to the manual record. In addition, MPE of 0.55% applied due to the portable gas analyser was calibrated on 01/02/2021. The lower bound value of the 95% CI data plus MPE is applied thus cause the constant data.
2. Aug 20 Main and Sept 20 Main tabs: PP explain due to malfunction of GSS2 gas analyser from 12/08/2020 to 19/09/2020, the portable gas analyser is used to measure manually. The results are calculated using a 95% CI to the manual record. In addition, MPE of 0.55% applied due to the portable gas analyser was calibrated on 01/02/2021. The lower bound value of the 95% CI data plus MPE is applied thus cause the constant data
3. June 20 Main, July 20 Main, Aug 20 Main and Sept 20 Main tabs: PP explain due to malfunction of GSS3 gas analyser from 05/06/2020 to 19/09/2020, the portable gas analyser is used to measure manually. The results are calculated using a 95% CI to the manual record. In addition, MPE of 0.55% applied due to the portable gas analyser was calibrated on 01/02/2021. The lower bound value of the 95% CI data plus MPE is applied thus cause the constant data. Apr 20 Main, Aug 20 Main and Sep 20 Main tabs: The LFG temperature for GSS3 during some days exceed 60°C. PP explain during the periods when the LFG temperature exceed 60°C, the data was recalculated according to the note below the table in the raw data that is appropriate. The excel spreadsheet is review for correctness. Tab Observation: The observation tab is not applicable and therefore deleted to avoid confusion.

Conclusion

Tick the appropriate checkbox

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

Table 5. CAR from this verification

CAR ID	E.3-2	Section no.	A.3	Date:	23/02/2021
Description of CAR					
MR version 1.0, Section A.3: The valid date for the project participants ACT Commodities, BP Gas Marketing ACT Financial Solutions and Vent Conservation are inconsistent with the dates listed at the project page in UNFCCC website.					
Project participant response (1st round)					Date
					14/04/2021
The validity dates for the project participants, ACT Commodities, BP Gas Marketing, ACT Financial Solutions and Vent Conservation are revised according to the dates listed at the project page in UNFCCC website.					
Documentation provided by project participant (1st round)					
<input checked="" type="checkbox"/>	Changes in MR	Section(s): A.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:
					16/04/2021
MR version 1.1, Section A.3: The valid date for the project participants ACT Commodities, BP Gas Marketing ACT Financial Solutions and Vent Conservation are corrected and consistent with the dates listed at the project page in UNFCCC website.					
Conclusion		<input type="checkbox"/> Additional action should be taken (finding remains open)			
<i>Tick the appropriate checkbox</i>		<input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.4-1	Section no.	B.2.5	Date:	23/02/2021
Description of CAR					
MR version 1.0, Section B.2.5: The revision of the monitoring plan during 1 st MP of CPII approved on 21/06/2018 (PRC-2467-005) has not been described.					
Project participant response (1st round)					Date
					14/04/2021
The revision of the monitoring plan during 1 st MP of CPII approved on 21/06/2018 (PRC-2467-005) is described.					
Documentation provided by project participant (1st round)					
<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:	16/04/2021
MR version 1.1, Section B.2.5: The revision of the monitoring plan during 1 st MP of CPII approved on 21/06/2018 (PRC-2467-005) is updated.			
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

CAR ID	E.4-2	Section no.	B.2.6	Date:	23/02/2021	
Description of CAR						
MR version 1.0, Section B.2.6: The capacity of the addition engines described shall be corrected as "each".						
Project participant response (1st round)					Date	14/04/2021
The capacity of the additional engines is described and corrected as "each".						
Documentation provided by project participant (1st round)						
<input checked="" type="checkbox"/>	Changes in MR	Section(s): B.2.6		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:	16/04/2021
MR version 1.1, Section B.2.6: The capacity of the addition engines describe corrected as "each".						
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.5-2	Section no.	C	Date:	23/02/2021	
Description of CAR						
MR version 1.0, Section C:						
<ol style="list-style-type: none"> Table 5: The MPE description for PT_{2,GSS2} is not according to the calibration error of 0.8% found during calibration conducted on 14/12/2020. Table 5: The delay in calibration for W_{CH4,GSS2} and the calibration error not reported. Table 5: The MPE describe for FT3 is inconsistent with the equipment accuracy error. In addition the MPE applied is not according to VVS version 2.0, §366 since calibration is not conducted. Table 6: The MPE applied for TT1 is not according to the calibration error of 0.2% found during calibration conducted on 13/12/2020 Table 6: The MPE applied for PT2 is not according to the calibration error of 0.7% found during calibration conducted on 14/12/2020. Table 7: The accuracy for PT_{PT2,GSS3} is not according to the equipment specification. Figures 9 and 11 to be corrected to reflect the current situation of the project. 						
Project participant response (1st round)					Date	14/04/2021
<ol style="list-style-type: none"> Table 5: The MPE description for P_{PT2,GSS2} has been revised following the equipment calibration error of 0.8% found during the calibration conducted on 14/12/2020. Table 5: There is no delay in calibration for W_{CH4,GSS2} and the gas analyser is still valid during this monitoring period. Instead, a re-calibration was conducted on 14/12/2020. Table 5: The MPE described for FT3 is revised to be consistent with the equipment accuracy error, i.e. 2.7%. The MPE applied has been revised to be in accordance to VVS version 2.0, §366. Table 6: The MPE applied for TT1 has been corrected to follow the equipment calibration error of 0.2% found during the calibration conducted on 13/12/2020. Table 6: The MPE applied for PT2 has been corrected to follow the equipment calibration error of 0.7% found during the calibration conducted on 14/12/2020. Table 7: The accuracy for P_{PT2,GSS3} has been corrected to follow the equipment specification of 0.15%. Figures 9 and 11 have been corrected to reflect the current situation. 						

Documentation provided by project participant (1 st round)		
<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: 16/04/2021
MR version 1.1, Section C:		
<ol style="list-style-type: none"> Table 5: The MPE description for PT_{2,GSS2} is updated and according to the calibration error of 0.8% found during calibration conducted on 14/12/2020. Table 5: There is no delay in calibration for W_{CH4,GSS2} as reported by PP. However, recalibration conducted on 14/02/2020 and updated accordingly. Table 5: The MPE described for FT3 is updated and consistent with the equipment accuracy error. In addition the MPE applied is corrected and according to VVS version 2.0, §366. Calibration is conducted on 19/02/2021. Table 6: The MPE applied for TT1 is corrected and according to the calibration error of 0.2% found during calibration conducted on 13/12/2020. Table 6: The MPE applied for PT2 is update and according to the calibration error of 0.7% found during calibration conducted on 14/12/2020. Table 7: The accuracy for PT_{PT2GSS3} is corrected and according to the equipment specification. Figures 9 and 11 corrected to reflect the current situation of the project. 		
Conclusion <i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

CAR ID	E.6-6	Section no.	D.2	Date:	23/02/2021
Description of CAR					
MR version 1.0, Section D.2, Parameter Op _{i,h} : The operation of the gas engines are not included.					
Project participant response (1st round)					Date
					14/04/2021
The operation hours of the gas engines are included.					
Documentation provided by project participant (1st round)					
<input checked="" type="checkbox"/> Changes in MR	Section(s):		New version No.:		
<input type="checkbox"/> Changes in XLS	Worksheet(s):		New version No.:		
<input type="checkbox"/> Other:					
DOE assessment (1st round)					Date: 16/04/2021
MR version 1.1, Section D.2, Parameter Op _{i,h} : The operating hours of the gas engines included and crosschecked with the daily log sheets for correctness.					
Conclusion <i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.6-7	Section no.	D.2	Date:	23/02/2021
Description of CAR					
MR version 1.0, Section D.2, Parameter EG _{PJ,y} : The parameter representation for EL _{LFG,GE No.4} and EL _{LFG,GE No.5} are not listed for GE 5 & 6.					
Project participant response (1st round)					Date
					14/04/2021
The parameter representation for EL _{LFG,GE No.5} and EL _{LFG,GE No.6} is listed for GE 5 & 6.					
Documentation provided by project participant (1st round)					
<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: 16/04/2021
MR version 1.1, Section D.2, Parameter EG _{PJ,y} : The parameter representation for EL _{LFG,GE No.4} and EL _{LFG,GE No.5} are listed for GE 5 & 6.					
Conclusion <i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.6-8	Section no.	D.2	Date:	23/02/2021
Description of CAR					
MR version 1.0, Section D.2, Parameter $EG_{EC,y}$: The source of data did not include electricity consumed by GE5 & 6.					
Project participant response (1st round)				Date	14/04/2021
The source of data for parameter $EG_{EC,y}$ has taken into account the electricity consumed by GE 5 & 6.					
Documentation provided by project participant (1st round)					
<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:	16/04/2021
MR version 1.1, Section D.2, Parameter $EG_{EC,y}$: The source of data updated to include electricity consumed by GE5 & 6.					
Conclusion <i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.6-9	Section no.	D.2	Date:	23/02/2021
Description of CAR					
MR version 1.0, Section D.2, Parameter $T_{EG,m}$: A delay in calibration and applying the instrument error as MPE is not in accordance to VVS version 2.0, §366.					
Project participant response (1st round)				Date	14/04/2021
The description to apply MPE has been revised to be in accordance to VVS version 2.0, §366. The calibration was conducted on 14/12/2020. Due to delay in calibration, the maximum permissible error of $\pm 0.5\%$ which is the equipment accuracy error was applied to TT3 from 17/09/2020 – 13/12/2020 as a conservative approach. There is no impact to the flare data as during these periods, shutdown was observed					
Documentation provided by project participant (1st round)					
<input checked="" type="checkbox"/> Changes in MR		Section(s): D.2		New version No.: 1.1	
<input type="checkbox"/> Changes in XLS		Worksheet(s):		New version No.:	
<input checked="" type="checkbox"/> Other: F2 SD Sept-Dec 20					
DOE assessment (1st round)				Date:	16/04/2021
MR version 1.1, Section D.2, Parameter $T_{EG,m}$: The recalibration was conducted on 14/12/2020 with a calibration error of 0.05% which is lower than the instrument accuracy error of 0.5%. The MPE of 0.5% applied is the instrument accuracy error and therefore in accordance to VVS version 2.0, §366.					
The MPE was applied to data for the period 17/09/2020 to 13/12/2020 as a conservative approach. However, the flare was not in operation during this period, therefore, no data available. The operation data of the flare and manual daily records were verified that the flare was not operating.					
Conclusion <i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.6.10	Section no.	D.2	Date:	23/02/2021
Description of CAR					
MR version 1.0, Parameter $V_{t,wb}$:					
<ol style="list-style-type: none"> 1. The parameter representation for $LFG_{electricity,GSS3,y}$ is not listed. 2. GSS2. The sentence below the table for FT7 is unclear whether represent FT3 or FT7 3. The serial number for GSS3 FT3 is not according to the installed instrument and specification. 					
Project participant response (1st round)				Date	14/04/2021
<ol style="list-style-type: none"> 1. The parameter representation for $LFG_{electricity,GSS3,y}$ has been listed. 2. GSS2. The sentence below the table for FT7 has been revised to only represent FT7. 3. The serial number for GSS3 FT3 has been corrected to follow the installed instrument and calibration report. 					
Documentation provided by project participant (1st round)					
<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:	16/04/2021
MR version 1.1, Parameter $V_{t,wb}$:			
<ol style="list-style-type: none"> 1. The parameter representation for $LFG_{electricity,GSS3,y}$ is now listed. 2. GSS2. The sentence below the table for FT7 is update accordingly to represent FT7 only. 3. The serial number for GSS3 FT3 is updated according to the installed instrument and specification. 			
Conclusion <i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed	

CAR ID	E.6-11	Section no.	D.2	Date:	23/02/2021	
Description of CAR						
MR version 1.0, Section D.2, Parameter $V_{CH_4,m,db}$:						
<ol style="list-style-type: none"> 1. The parameter representation for $W_{CH_4,GSS3,y}$ is not listed. 2. F2 gas analyser serial no. 31453 is not traceable 3. GSS2 gas analyser serial no: 14464 has calibration error of 3.58% found during calibration on 14/02/2020. The measured data from 01/04/2020 to 13/12/2020 shall be corrected. 4. The use of portable CH_4 analysers for Jun 20 Main to Dec 20 Main tabs in ER1 spreadsheet are not reported. 						
Project participant response (1st round)					Date	14/04/2021
<ol style="list-style-type: none"> 1. The parameter representation for $W_{CH_4,GSS3,y}$ has been listed. 2. There was a mistake in serial number for F2 gas analyser described in MR version 1.0, section D.2. The correct serial no. should be 33542 instead of 31453 which was not seen during the site visit. This was due to the gas analyser was broken and sent for repair in Dec 2020. This is recorded under the service and maintenance record (MS2- BTSLService Maintenance Record For LFG 2020). 3. GSS2 gas analyser serial no: 14464 has calibration error of 3.58% found during calibration on 14/02/2020. The calibration results have been reconfirmed with the calibrator and the final result is 0.65%. According to the calibrator, they have recalculated the error after taking into considerations of the actual flow and pressure transmitter specifications installed at site. The previous calibration error of 3.58% is calculated without taking into consideration of the actual flow and pressure transmitter specifications. Interpretation on the revised calibration error is included in the revised calibration certificate. The measured data from 01/04/2020 to 13/12/2020 is not corrected due to the calibration error is less than the equipment accuracy error, and the equipment is still valid during this monitoring period (CF45b_BTSL_CH4_141220). 4. The use of portable CH_4 analyser from Jun 2020 to Dec 2020 has been reported in Jun 20 Main to Dec 20 Main tabs of ER1 spreadsheet. June 20 Main tab (row 68-70), July 20 Main tab (row 73 – 75), Aug 20 Main tab (row 80-81), Sept 20 Main tab (row 83-84), October 20 Main tab (row 72-73), Nov Main tab (row 72-73), Dec Main tab (row 73-74) 						
Documentation provided by project participant (1st round)						
<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): Jun 20 Main to Dec 20 Main		New version No.: 1.1		
<input checked="" type="checkbox"/> Other: MS2- BTSL Service Maintenance Record For LFG 2020 CF45b_BTSL_CH4_141220						
DOE assessment (1st round)					Date:	16/04/2021

MR version 1.1, Section D.2, Parameter $V_{CH_4, m, db}$:

1. The parameter representation for $W_{CH_4, GSS3, y}$ is now listed.
2. The PP explain there was an error for F2 gas analyser serial number describe in MR version 1.0. The correct serial no. is 33542 instead of 31453. However, the analyser was not sighted during onsite due breakdown and sent for repair. The maintenance and service records is reviewed to verify the units is sent for repair.

At the time when the units was removed in December 2020 for repairs, the flare was not operating. Therefore, no data captured and no impact to ERs.

3. The calibration error of 3.58% found during calibration for GSS2 gas analyser serial no. 11464 on 14/12/2020 is clarify by the calibrator is incorrectly calculated initially. The calibrator has recalculate taking flow rate and pressure into consideration, the error is 0.65% which is lower than the instrument accuracy error of 2%. Therefore, the measured data from 01/04/2020 to 13/04/2020 need not to be changed.
4. The use of portable CH4 analyser from Jun 20 to Dec 20 are reported appropriately in the respective main tabs rows of ER1 spreadsheet. The dates are crosschecked with the manual records when portable analyser is used.

Conclusion

Tick the appropriate checkbox

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

CAR ID	E.6-12	Section no.	D.2	Date:	23/02/2021
Description of CAR					
MR version 1.0, Section D.2, Parameter T_t :					
<ol style="list-style-type: none"> 1. The parameter representation for $T_{TT1, GSS3}$ is not listed 2. The MPE applied for $T_{TT1, GSSF1}$ is not according to the calibration error of 0.2% found during calibration on 14/12/2020 					
Project participant response (1st round)					Date
<ol style="list-style-type: none"> 1. The parameter representation for $T_{TT1, GSS3}$ has been listed. 2. The MPE applied for $T_{TT1, GSSF1}$ has been corrected to follow the calibration error of 0.2% found during calibration on 14/12/2020. 					14/04/2021
Documentation provided by project participant (1st round)					
<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 T_t :					16/04/2021
<ol style="list-style-type: none"> 1. The parameter representation for $T_{TT1, GSS3}$ is listed. 2. The MPE applied for $T_{TT1, GSSF1}$ is corrected according to the calibration error of 0.2% found during calibration on 14/12/2020. The calculation is verified. 					
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.6.13	Section no.	D.2	Date:	23/02/2021
Description of CAR					

MR version 1.0, Section D.2, Parameter Pt ($P_{PT2,F2}$, $P_{PT2,GSS1}$, $P_{PT2,GSS2}$, $P_{PT2,GSSF1}$):

1. The parameter representation for $P_{PT2,GSS3}$ is not listed.
2. The MPE applied for $PT_{P2,GSSF1}$ is not according to the calibration error of 0.7% found during calibration on 14/12/2020.
3. The MPE applied for $PT_{PT2,GSS2}$ is not according to the calibration error of 0.8% found during calibration on 14/12/2020
4. The start date applied for the delay in calibration for $PT_{PT2,GSS3}$ is incorrect.
5. The accuracy class for GSS3, P_t ($PT_{PT2,GSS3}$) is not according to the equipment specification.
6. The accuracy class for GSS3, P_t ($PT_{PT2,GSS3}$) describes in the calibration report dated 15/12/2020 issued by CT Services is incorrect.
7. The MPE applied for GSS3, P_t ($PT_{PT2,GSS3}$) is not according to the calibration error of 0.25% found during calibration on 14/12/2020.

Project participant response (1st round)

Date

14/04/2021

1. The parameter representation for $P_{PT2,GSS3}$ has been listed.
2. The MPE applied for $PT_{P2,GSSF1}$ has been corrected to follow the calibration error of 0.7% found during the calibration on 14/12/2020.
3. The MPE applied for $PT_{PT2,GSS2}$ has been corrected to follow the calibration error of 0.8% found during the calibration on 14/12/2020.
4. The start date applied for the delay in calibration for $PT_{PT2,GSS3}$ has been corrected from 24/07/2020 to 01/04/2020.
5. The accuracy class for GSS3, P_t ($P_{PT2,GSS3}$) has been corrected to follow the equipment specification of 0.15%.
6. The accuracy class for GSS3, P_t ($P_{PT2,GSS3}$) described in the calibration report dated 15/12/2020 issued by CT Services has been corrected.
7. The MPE applied for GSS3, P_t ($PT_{PT2,GSS3}$) has been corrected to follow the calibration error of 0.25% found during the calibration on 14/12/2020.

Documentation provided by project participant (1st round)

☒ Changes in MR

Section(s): D.2

New version No.: 1.1

☐ Changes in XLS

Worksheet(s):

New version No.:

Other: ER2_BTSL_Normalised
☒ Flow_GSSF1_PT2_Template_170920-131220_Ver 1.1
 ER4_BTSL_Normalised Flow_GSS2_PT2_170920-131220
 ER5_BTSL_Normalised Flow_GSS3_PT2_010420-131220

DOE assessment (1st round)

Date:

16/04/2021

MR version 1.1, Section D.2, Parameter Pt ($P_{PT2,F2}$, $P_{PT2,GSS1}$, $P_{PT2,GSS2}$, $P_{PT2,GSSF1}$):

1. The parameter representation for $P_{PT2,GSS3}$ is listed.
2. The MPE applied for $PT_{P2,GSSF1}$ is corrected according to the calibration error of 0.7% found during calibration on 14/12/2020. The calculation is verified.
3. The MPE applied for $PT_{PT2,GSS2}$ is corrected according to the calibration error of 0.8% found during calibration on 14/12/2020. The ER sheet is verified on the MPE applied.
4. The start date applied for the delay in calibration for $PT_{PT2,GSS3}$ corrected as from 01/04/2020. The ER sheet is verified.
5. The accuracy class for GSS3, P_t ($PT_{PT2,GSS3}$) is updated according to the equipment specification.
6. The accuracy class for GSS3, P_t ($PT_{PT2,GSS3}$) describes in the calibration report dated 15/12/2020 issued by CT Services is corrected.
7. The MPE applied for GSS3, P_t ($PT_{PT2,GSS3}$) is updated according to the calibration error of 0.25% found during calibration on 14/12/2020.

Conclusion

Tick the appropriate checkbox

☐ Additional action should be taken (finding remains open)

☒ The finding is closed

CAR ID	E.6-14	Section no.	D.3	Date:	23/02/2021
Description of CAR					
MR version 1.0, Section D.3: Sampling method for the determination of the normalised flow GSS1, GSS2, GSS3 and GSSF1 and GSS3 due to delay in calibration for P _{PT2} and T _{T1} is not describe.					
Project participant response (1st round)				Date	14/04/2021
<p>Sampling method for the determination of the normalised flow for PT2 and TT1 due to delay in calibration have been described in section D.3. The steps for the demonstration are listed as below:</p> <p>Step 1: Calculate the total no. of days affected for the monitoring period</p> <p>Step 2: Calculate the sample size</p> <p>Step 3: Select the sample</p> <p>Step 4: Tabulate the parameter needed for calculation</p> <p>Step 5: Calculate the new TT1 or PT2 after applying the MPE</p> <p>Step 6: Calculate the actual flow and new actual flow after applying the MPE</p> <p>Step 7: Calculate the difference between the actual flow and new flow after applying new TT1 or PT2</p> <p>Step 8: Conclusion</p> <p>The detail description can be found in MR version 1.1 Section D.3.</p>					
Documentation provided by project participant (1st round)					
<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:	16/04/2021
MR version 1.1, Section D.3: Sampling method for the determination of the normalised flow GSS1, GSS2, GSS3 and GSSF1 and GSS3 due to delay in calibration for P _{PT2} and T _{T1} is updated to describe the calculation process step by step and is deemed 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.7-1	Section no.	D.2	Date:	23/02/2021
Description of CAR					
MR version 1.0, Parameter V _{t,wb} :					
<ol style="list-style-type: none"> GSS2 flow meter FT7 calibration is not conducted. Applying the instrument error as MPE is not in accordance to VVS version 2.0, §366. GSS2 FT3 calibration is not conducted. Applying the instrument error as MPE is not in accordance to VVS version 2.0, §366. 					
Project participant response (1st round)				Date	14/04/2021
<ol style="list-style-type: none"> FT7 was calibrated on 31/03/2021. The calibration error is 0.65% which is lower than the equipment accuracy error of 1.8%. As a result, the maximum permissible error of ±1.8% which is the equipment accuracy error was applied to FT7 from 01/04/2020 - 31/12/2020 as a conservative approach. However, there is no impact to the CER sheet due to FT7 is a backup meter in case GSS3FT3 malfunction, there is no malfunction of GSS3FT3 during this monitoring period. The date of testing for meter GSS2 FT3 has been updated, i.e. 19/02/2021. The description to apply MPE has been revised to be in accordance to VVS version 2.0, §366. The MPE of 2.7% is applied from 09/12/2020 – 31/12/2020 in CER sheet Dec20_Main tab cell R19 – R41 					
Documentation provided by project participant (1st round)					
<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: O8 - Manual Record of FT7-FT9 MPE_Apr-Dec 2020 O8 - Manual Record_FT7-FT9_Apr - Dec 2020					
DOE assessment (1st round)				Date:	16/04/2021

MR version 1.1, Parameter $V_{t,wb}$:

1. GSS2 flow meter FT7 calibration conducted on 31/03/2021. The calibration report is review with a calibration error of 0.65% which is lower than instrument accuracy error of 1.6%. The MPE applied is 1.6% to the data from 01/04/2020 - 31/12/2020 as a conservative approach. Therefore, in accordance to VVS version 2.0, §366. However, FT7 is a standby flowmeter with the data will be applied in the event FT3 is malfunction. During this monitoring period FT3 is in operation. Therefore, the data from FT7 have no impact to the ER event though has calibration error.
2. GSS2 FT3 calibration is conducted on 19/02/2021 with an error of 1.2% as compared to the instrument accuracy error of 2.7%. Therefore, applying the instrument accuracy error as MPE is in accordance to VVS version 2.0, §366.

The MPE applied to the data for the period 09/12/2020 – 31/12/2020 describe in CER sheet Dec20 Main tab cell R19 – R41 is verified as appropriately.

Conclusion

Tick the appropriate checkbox

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

CAR ID	E.7-2	Section no.	D.2	Date:	23/02/2021
Description of CAR					
MR version 1.0, Section D.2, Parameter $V_{CH_4,m,db}$: Calibration for F2 analyser is not conducted. Applying the instrument error as MPE is not in accordance to VVS version 2.0, §366.					
Project participant response (1st round)					Date
					14/04/2021
The description to apply MPE has been revised to be in accordance to VVS version 2.0, §366. Due to delay in calibration, the maximum permissible error of $\pm 2.0\%$ which is the equipment accuracy error was applied to CH ₄ from 17/09/2020 – 31/12/2020 as a conservative approach. There is no impact to the flare data as during these periods as flare was shutdown (see attached F2_Dec 20_Excel). The gas analyser was broken and sent for repair in Dec 2020. This is recorded under the service and maintenance record (MS2- BTSL Service Maintenance Record For LFG 2020 and service report).					
Documentation provided by project participant (1st round)					
<input checked="" type="checkbox"/> Changes in MR		Section(s): D.2		New version No.: 1.1	
<input type="checkbox"/> Changes in XLS		Worksheet(s):		New version No.:	
<input checked="" type="checkbox"/> Other: Service report_KUB-Berjaya_Guardian Plus_33542_17122020 MS2- BTSL Service Maintenance Record For LFG 2020 F2_Dec 20_Excel					
DOE assessment (1st round)					Date:
					16/04/2021
MR version 1.1, Section D.2, Parameter $V_{CH_4,m,db}$: The F2 analyser calibration is not conducted since the analyser was found broken during calibration that required to be repaired by the manufacturer. The service report issued by the calibrator is verify to confirm the unit is broken and sent for repair.					
During the period when the analyser is taken out for calibration, the flare is not operating. Therefore, the MPE applied is not relevant as there are no data and no impact to the ERs.					
The maintenance and service record is review to verify the date when the analyser is sent for calibration.					
Conclusion		<input type="checkbox"/> Additional action should be taken (finding remains open)			
Tick the appropriate checkbox		<input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.8-3	Section no.	E.1 & ER1 spreadsheet	Date:	23/02/2021
Description of CAR					
MR version 1.0, Section E.1, and ER1 spreadsheet version 1.0, Baseline Emissions:					
<ol style="list-style-type: none"> 1. The determination of the baseline emissions for electricity generated and methane destruction did not demonstrate whether exceeds the 6.6MW power generated in accordance to the approved revised PDD version 21.3 2. The calibration error of 3.58% found during calibration for GSS2 gas analyser on 14/12/2020, the data from 01/04/2020 to 13/12/2020 shall be corrected 3. Baseline emissions shall be corrected accordingly due to delay in calibration and calibration error found. 					
Project participant response (1st round)					Date
					14/04/2021

1. The determination of the baseline emissions for electricity generated and methane destruction on whether they have exceeded 6.6MW power generated have been demonstrated in the MR and CER calculation sheet Demo Power Upload tab, table 2 and table 3 in accordance to the approved revised PDD, version 21.3.
2. GSS2 gas analyser serial no: 14464 has calibration error of 3.58% found during calibration on 14/02/2020. The calibration results have been reconfirmed with the calibrator and the final result is 0.65%. According to the calibrator, they have recalculated the error after taking into considerations of the actual flow and pressure transmitter specifications installed at site. The previous calibration error of 3.58% is calculated without taking into consideration of the actual flow and pressure transmitter specifications. Interpretation on the revised calibration error is included in the revised calibration certificate. The measured data from 01/04/2020 to 13/12/2020 is not corrected due to the calibration error is less than the equipment accuracy error, and the equipment is still valid during this monitoring period (CF45b_BTSL_CH4_141220).
3. Baseline emissions corrected due to the delay in calibration and calibration error found in revised CER version 1.1 and section E.1 Determination of $BE_{CH_4,y}$, and Determination of $BE_{EC,y}$ in MR.

Documentation provided by project participant (1st round)

<input checked="" type="checkbox"/> Changes in MR	Section(s): E.1	New version No.: 1.1
<input checked="" type="checkbox"/> Changes in XLS	Worksheet(s): Monthly EL PJ and Monthly Main tabs of all related periods	New version No.: 1.1
<input type="checkbox"/> Other:		

DOE assessment (1st round)**Date:** 16/04/2021

MR version 1.1, Section E.1, and ER1 spreadsheet version 1.1, Baseline Emissions:

1. The determination of the baseline emissions for electricity generated and methane destruction that does not exceed 6.6MW for each month is describe MR and revised ER spreadsheet in Demo Power Upload tab, table 2 and table 3 in accordance to the approved revised PDD, version 21.3.
2. The calibration error of 3.58% found during calibration for GSS2 gas analyser on 14/12/2020 is clarify by the calibrator is incorrectly calculated initially. The calibrator has recalculate taking flow rate and pressure into consideration, the error is 0.65% which is lower than the instrument accuracy error of 2%. Therefore, the measured data from 01/04/2020 to 13/04/2020 need not to be changed.
3. Baseline emissions shall be corrected accordingly caused by delay in calibration and calibration error found. ER spreadsheet is crosscheck for the corrections made.

Conclusion

Tick the appropriate checkbox

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

CAR ID E.8-4**Section no.**

ER1 spreadsheet

Date:

23/02/2021

Description of CAR

ER1a spreadsheet version 1.0:

1. Tab BE_{CH_4} GSS2: The tab is for reporting of CH₄. Information for BE_{EC} shall be removed to avoid confusion.
2. Tab BE_{CH_4} GSS3: The tab is for reporting of CH₄. Information for BE_{EC} shall be removed to avoid confusion.
3. Tab BE_{EC} GSS2 & 3: The tab states is for GSS2 & 3. However, there is no information in the spreadsheet that include GE4.
4. Tab BE_{EC} GSS2 & 3: BE_{CH_4} information should be removed to avoid confusion
5. Tab PE: The heading in row 9 does not reflect PE include diesel consumption although the table has the data.
6. Apr 20 Main to Dec 20 Main tabs: The heading for the instrument for %CH₄ to be corrected

Project participant response (1st round)**Date**

14/04/2021

1. Tab BE _{CH4} GSS2: Information for BE _{EC} has been removed to avoid confusion. 2. Tab BE _{CH4} GSS3: Information for BE _{EC} has been removed to avoid confusion. 3. Tab BE _{EC} GSS2 & 3: The tab has been renamed to BEEC_GE4&GE5&GE6 and updated to include GE4 and its information. 4. Tab BE _{EC} GSS2 & 3: The tab has been renamed to BEEC_GE4&GE5&GE6, and the information for BE _{CH4} has been removed to avoid confusion. 5. Tab PE: The heading title in row 9 has been revised to reflect PE for both electricity and diesel consumption. 6. Apr 20 Main to Dec 20 Main tabs: The heading for the instrument for %CH4 has been corrected.		
Documentation provided by project participant (1st round)		
<input type="checkbox"/> Changes in MR	Section(s):	New version No.:
<input checked="" type="checkbox"/> Changes in XLS	Worksheet(s): BECH4 GSS2, BECH4 GSS3, BEEC_GE4&GE5&GE6, PE, Apr 20 Main to Dec 20 Main	New version No.: 1.1
<input type="checkbox"/> Other:		
DOE assessment (1st round)		Date: 16/04/2021
ER1a spreadsheet version 1.1:		
1. Tab BE _{CH4} GSS2: The tab is for reporting of CH4. Information for BE _{EC} is removed to avoid confusion and is appropriate. 2. Tab BE _{CH4} GSS3: The tab is for reporting of CH4. Information for BE _{EC} is removed to avoid confusion and is appropriate. 3. Tab BE _{EC} GSS2 & 3: The tab is renamed to BEEC_GE4&GE5&GE6 and include GE4 information. 4. Tab BE _{EC} GSS2 & 3: The tab is renamed BEEC_GE4&GE5&GE6 and information for BE _{CH4} removed to avoid confusion 5. Tab PE: The heading in row 9 revised to reflect PE for electricity and diesel consumption. 6. Apr 20 Main to Dec 20 Main tabs: The heading for the instrument for %CH4 corrected accordingly.		
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.8-5	Section no.	ER2 GSSF1	Date:	23/02/2021	
Description of CAR						
ER2 GSSF1 Normalised Spreadsheet:						
1. TT1: The MPE applied in the calculation is not according to the calibration error of 0.2% found during calibration on 14/12/2020. 2. PT2: The MPE applied in the calculation is not according to the calibration error of 0.7% found during calibration on 14/12/2020.						
Project participant response (1st round)					Date	14/04/2021
1. TT1: The MPE applied in the calculation has been revised to follow the equipment calibration error of 0.2% found during calibration on 14/12/2020 (ER2_BTSL_Normalised Flow_GSSF1_TT1_Template_170920-131220). 2. PT2: The MPE applied in the calculation has been revised to follow the equipment calibration error of 0.7% found during calibration on 14/12/2020 (ER2_BTSL_Normalised Flow_GSSF1_PT2_Template_170920-131220).						
Documentation provided by project participant (1st round)						
<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			
Other: ER2_BTSL_Normalised Flow_GSSF1_TT1_Template_170920-131220_Ver 1.1 <input checked="" type="checkbox"/> ER2_BTSL_Normalised Flow_GSSF1_PT2_Template_170920-131220_Ver 1.1						
DOE assessment (1st round)					Date: 16/04/2021	

ER2 GSSF1 Normalised Spreadsheet:	
1. TT1: The MPE applied is corrected in the calculation according to the calibration error of 0.2% found during calibration on 14/12/2020. The data is review and appropriate. 2. PT2: The MPE applied is corrected in the calculation according to the calibration error of 0.7% found during calibration on 14/12/2020. The data is verified and appropriate.	
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.8-6	Section no.	ER3 GSS2 Spreadsheet	Date:	23/02/2021
Description of CAR					
ER4 GSS2 PT2 Normalised spreadsheet: The MPE applied in the calculation is not according to the calibration error of 0.8% found during calibration on 14/12/2020					
Project participant response (1st round)				Date	14/04/2021
The MPE applied in the calculation has been revised to follow the equipment calibration error of 0.8% found during the calibration on 14/12/2020 (ER3_BTSL_Normalised Flow_GSS1_TT1_Template_170920-121220).					
Documentation provided by project participant (1st round)					
<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: ER3_BTSL_Normalised Flow_GSS1_TT1_Template_170920-121220_Ver 1.1					
DOE assessment (1st round)				Date:	16/04/2021
ER4 GSS2 PT2 Normalised spreadsheet: The MPE applied in the calculation is corrected and according to the calibration error of 0.8% found during calibration on 14/12/2020.					
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.1-1	Section no.	A.3	Date:	06/05/2021
Description of CAR					
MR version 1.1: A.3: Validity dates for annex 1 PPs shall be revised					
Project participant response (1st round)				Date	07/05/2021
MR version 1.2: The validity dates for annex 1 PPs has been revised.					
Documentation provided by project participant (1st round)					
<input checked="" type="checkbox"/> Changes in MR		Section(s): A.3		New version No.: 1.2	
<input type="checkbox"/> Changes in XLS		Worksheet(s):		New version No.:	
<input type="checkbox"/> Other:					
DOE assessment (1st round)				Date:	07/05/2021
MR version 1.2: A.3: Validity dates for annex 1 PPs are corrected accordingly.					
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.1-2	Section no.	Template	Date:	06/05/2021
Description of CAR					
MR version 1.1: The template version is not the latest version 8.0 available at UNFCCC website.					
Project participant response (1st round)				Date	07/05/2021
MR version 1.2: Updated using the latest MR version 8.0 template published by UNFCCC website					

Documentation provided by project participant (1 st round)		
<input checked="" type="checkbox"/> Changes in MR BTSL_CDM_CPII MR5	Section(s):	New version No.: 1.2
<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
<input type="checkbox"/> Other:		
DOE assessment (1 st round)		Date: 07/05/2021
MR version 1.2: The MR is updated to template version 8.0 with all information are correct.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed	

CAR ID	E.4-3	Section no.	B.2.5 & B.2.6	Date:	06/05/2021	
Description of CAR						
MR version 1.1:						
1. B.2.5: Not all details of previous PRCs are included as required by the latest MR template 2. B.2.6: Please clarify if total installed generation capacity is 9.5MW or 10.4MW						
Project participant response (1 st round)					Date	07/05/2021
MR version 1.2:						
1. All the details of previous PRCs are included as required by the latest MR template 2. The total installed capacity of engines is 10.4MW, on the other hand, the total power generation and upload to grid is 9.5MW.						
Documentation provided by project participant (1 st round)						
<input checked="" type="checkbox"/> Changes in MR BTSL_CDM_CPII MR5	Section(s): B2.5 & B2.6		New version No.: 1.2			
<input type="checkbox"/> Changes in XLS	Worksheet(s):		New version No.:			
<input type="checkbox"/> Other: PRC report						
DOE assessment (1 st round)					Date:	07/05/2021
MR version 1.2						
1. B.2.5: All PRCs are updated in the respective sections as required by the latest MR template. 2. B.2.6: PP has explain the total installed generation capacity is 10.4MW whilst the total uploaded power generated is 9.5MW.						
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.5-3	Section no.	Section C	Date:	03/05/2021	
Description of CAR						
MR version 1.1, Section C, table 7: The calibration date for EL16 is inconsistent with the date describe in the letter issued by TNB for the calibration of the meter.						
Project participant response (1 st round)					Date	07/05/2021
MR version 1.2, Section C, table 7: The calibration date for EL16 is revised in MR version 1.3 to be consistent with the date describe in the letter issued by TNB for the calibration of the meter.						
Documentation provided by project participant (1 st round)						
<input checked="" type="checkbox"/> Changes in MR BTSL_CDM_CPII MR5	Section(s): C		New version No.: 1.2			

<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
<input type="checkbox"/> Other:		
DOE assessment (1st round)		Date: 07/05/2021
MR version 1.2, Section C, table 7: The calibration date for EL16 is corrected and consistent with the date describe in the letter issued by TNB for the calibration of the meter.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed	

CAR ID	E.6-15	Section no.	D.1 & D.,2	Date:	06/05/2021
Description of CAR					
MR version 1.1:					
1. D.1: The description of fixed parameter GWP_{CH_4} shall be consistent with the latest approved PDD 2. D.2: Some values for the monitored parameter $EG_{PJ,y}$ are incorrect					
Project participant response (1st round)					Date: 07/05/2021
MR version 1.2:					
1. The description of fixed parameter GWP_{CH_4} is revised to be consistent with the latest approved PDD 2. The values for the monitored parameter $EG_{PJ,y}$ is revised accordingly					
Documentation provided by project participant (1st round)					
<input checked="" type="checkbox"/> Changes in MR BTSL_CDM_CPII MR5	Section(s): D1 & D2		New version No.: 1.2		
<input type="checkbox"/> Changes in XLS	Worksheet(s):		New version No.:		
<input type="checkbox"/> Other:					
DOE assessment (1st round)					Date: 07/05/2021
MR version 1.2:					
1. D.1: The description of fixed parameter GWP_{CH_4} corrected and consistent with the latest approved PDD. 2. D.2: Values for the monitored parameter $EG_{PJ,y}$ are corrected					
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.8-7	Section no.	E.1	Date:	06/05/2021
Description of CAR					
MR version 1.1:					
1. E.1: Determination of $BE_{CH_4,y}$ (GSS3): The December 2020 values are not correct 2. E.1: Determination of $BE_{EC,y}$ (GSS2&GSS3): The December 2020 values are not correct 3. E.6: The calculated 10.2% and 10.6% over the ex-ante calculation is not correct					
Project participant response (1st round)					Date: 07/05/2021

MR version 1.2:		
<ol style="list-style-type: none"> 1. The December 2020 values under Determination of BECH_{4,y} (GSS3) is corrected according to CER sheet version 1.1 2. The December 2020 values under Determination of BE_{EC,y} (GSS2&GSS3) is corrected according to CER sheet version 1.1. 3. The calculated 10.2% and 10.6% over the ex-ante calculation is corrected to 13.57% in MR and CER spreadsheet, notes tab 		
Documentation provided by project participant (1st round)		
<input checked="" type="checkbox"/> Changes in MR BTSL_CDM_CPII MR5	Section(s): E1 & E6	New version No.: 1.2
<input checked="" type="checkbox"/> Changes in XLS	Worksheet(s): Notes Tab	New version No. 1.2
<input type="checkbox"/> Other:		
DOE assessment (1st round)		Date: 07/05/2021
MR version 1.2:		
<ol style="list-style-type: none"> 1. E.1: Determination of BECH_{4,y} (GSS3): The December 2020 values are corrected and consistent ER spreadsheet 2. E.1: Determination of BE_{EC,y} (GSS2&GSS3): The December 2020 values are corrected and consistent with ER spreadsheet. 3. E.6: The calculated 10.2% and 10.6% over the ex-ante calculation corrected to read as 13.57%. ER spreadsheet notes tab is updated to read the same. 		
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/ /IM01/</p>	<p><i>Description:</i></p> <p>The parameter monitors the management of the SWDS</p> <p>During this monitoring period, there are no changes 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>	OK	OK
		<p><i>Verifier's action:</i></p> <p>The verification team has visited the landfill sites and there are no changes to the design or technical specifications of the landfill sites</p> <p>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>The verification team has review the quarterly environmental reports submitted to the local Department of Environment.</p>		
		<p><i>Conclusion:</i></p> <p>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>		

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/ /PDD1/ /MM1/	<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
			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		
			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 type="checkbox"/>	In this context the following findings have been raised:		
		<input type="checkbox"/>			
2. Op_{j,h}		Description: Operation of the equipment that consumes the LFG			
a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.	/MR/ /ACM1/ /PDD1/ /ER8/ /ER6/ /DML1- DML6/ /SDR1- SDR7/ /MS1 – MS8/	Description: The parameter monitor the operation of the gas engines and flares are measure continuously by the run-hour meter for the gas engine, UV flame detector for the flare with thermocouples to measure the operating temperature. All monitored data are capture in the SCADA system. The data is recorded on hourly, aggregated monthly and yearly. During this monitoring period all gas engines are operating efficiently except GE4 did not operate for the month of April due to shut down for maintenance. During this monitoring period Flare 2 operates at low capacity and not in operation from September to December 2020 due to shut down. Verifier's action: During the onsite assessment, the run-hour meters installed at each engine was inspected. The operational log records for the flare and gas engines operational hours and flame detector are review. The shutdown records for Flare 2 and GE4 are reviewed to crosscheck on the shutdown. There are no exchange of gas engines or flare during this monitoring period. However, the operation of the gas engines are not included		CAR E.6-6	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.														
		<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>The parameter is monitored in accordance with the approved PDD and applied methodology</p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>In this context the following findings have been raised:</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-6</td></tr> <tr> <td><input type="checkbox"/></td><td></td></tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CAR E.6-6	<input type="checkbox"/>											
<input checked="" type="checkbox"/>	In this context the following findings have been raised:																	
<input checked="" type="checkbox"/>	CAR E.6-6																	
<input type="checkbox"/>																		
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the 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/ /ACM1/ /PDD1/ /ER8/ /ER6/ /DML1-DML6/ /SDR1-SDR7/ /MS1 – MS8/</p>	<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> </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:	CAR E.6-6	OK
<input type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan																	
<input type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6																	
<input type="checkbox"/>	No delayed calibration has occurred																	
<input 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:																	

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 maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration <input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument <input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument <input type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals <input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration. <input checked="" type="checkbox"/> In this context the following findings have been raised: <input checked="" type="checkbox"/> CAR E.6-6		
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}, EL_{LFG,GE No.5,y}, EL_{LFG,GE No.6,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/ /EL8/ /E10-EL12/ /CF25/ /CF27/ /CF36- CF38/	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. 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	CLE.6-4 CAR E.6-7	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
	/CF45- CF46/ /CF57- CF59/ /ER1/	<p>lower value will be applied as the quantity of electricity generated by gas engine 1 for the baseline emissions.</p> <p>EL5 is owned by TNB and calibration is not conducted since the due date.</p> <p>In accordance to VVS, version 02.0, para. 366, "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 applied the meter accuracy of 0.2% as MPE to the measured date for period 01/04/2020 to 31/12/2020.</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>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<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 value from EL11 and the lower value will be taken as the 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 01/04/2020 to 31/12/2020.</p>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>Therefore, for conservativeness, meter accuracy of 0.5% is applied to the data for period 01/04/2020 to 31/12/2020 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> <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 EL16 the same meter for GE5 & GE6 that belongs to the grid operator, Tenaga Nasional Berhad (TNB).</p> <p>There was a delay in calibration during this MPV conducted on 09/12/2020. The equipment error (0.13%) was less than the meter accuracy. Therefore, for conservativeness, meter accuracy of 0.5% is applied to the data for period 01/08/2020 to 31/12/2020</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>GSS3 (Gas Engine 5 & 6):</p> <p>The amount of electricity generated by the gas engines 5 & 6 is measured by meters EL14 & EL15 respectively.</p> <p>The amount of electricity generated by GE5 & GE6 export to the grid is measured by meter EL16 that belongs to the grid operator, Tenaga Nasional Berhad (TNB). The same meter measure the electricity generated by GE4.</p> <p>Meter EL16 is owned by TNB and calibrated on 12/08/2020 and remains valid for this monitoring period.</p> <p>For meters details please refer to the parameter table in section D.2 and section C of the MR and Appendix 6 of this report.</p> <p><i>Verifier's action:</i></p> <p>During the onsite visit the following were crosschecked:</p>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.										
		<ul style="list-style-type: none"> All meters specifications described in parameter table in MR are in operating condition. Verified data applied for baseline emissions in the ER spreadsheet. Verified MPE applied are in accordance to meter accuracy for delay in calibration and not conducted by the grid operator. Verified data reported in ER spreadsheet are on weekly basis and how is determined. <p>The total power uploaded to the grid from April and December is unclear whether exceed 6.6MW to comply the requirements described in the approved revised PDD version 21.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitor in accordance to 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>CL E.6-1</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-7</td></tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CL E.6-1	<input checked="" type="checkbox"/>	CAR E.6-7						
<input checked="" type="checkbox"/>	In this context the following findings have been raised:													
<input checked="" type="checkbox"/>	CL E.6-1													
<input checked="" type="checkbox"/>	CAR E.6-7													
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>	/MR/ /PDD1/ /ACM1/ /EL8/ /E 10-EL12/ /CF25/ /CF27/	<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 checked="" type="checkbox"/></td><td>For details regarding the accuracy and calibration details please refer to Appendix 6</td></tr> <tr> <td><input type="checkbox"/></td><td>No delayed calibration has occurred</td></tr> <tr> <td><input type="checkbox"/></td><td>As per the initial assessment the monitored value is deemed 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> </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 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.	CL E.6-4	OK
<input type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan													
<input 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.													

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.	/CF36- CF38/ /CF45- CF46/ /CF57- CF59/ /ER1/	<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 type="checkbox"/>	The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument		
		<input checked="" type="checkbox"/>	The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals		
		<input checked="" type="checkbox"/>	The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.		
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:		
		<input checked="" type="checkbox"/>	CL E.6-1		
4. EG _{EC,y}		Description: Amount of electricity consumed 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	/MR/ /PDD1/ /ACM1/	Description: This parameter monitors the quantity of electricity consumed by the project activity Flare 2 system, gas engines auxiliaries for GE1, GE2 & GE3, GE4, GE5 & GE6, GSS 1, GSS2 and GSS3 from the grid and measured by meter EL6 owned by the project owner.		CAR E.6-8	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>(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>	/ER1/ /E14/ /CF35/ /DML2/	The data is read daily, recorded and aggregated monthly.		
		EL1 is no longer in use and act as a standby meter to record the actual power consumption for Flare 2 and GSSF1.		
		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		
		Verifier's action: The grid electricity consumed by project activity were verified and the data applied in ER spreadsheet were crosschecked with the daily records. The data in the ER spreadsheets are aggregated on monthly basis from the daily manual reading records. However, the source of data did not include electricity consumed by GE5 & 6 and finding CAR E.6-8 was raised.		
		Conclusion: The parameter is monitored in accordance with the approved revised PDD and applied methodology		
		<div><div><input checked="" type="checkbox"/></div><div>In this context the following findings have been raised:</div></div>		
		<div><div><input checked="" type="checkbox"/></div><div>CAR E.6-8</div></div>		
<div><div><input type="checkbox"/></div><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>	/MR/ /ER1/ /CF35/ /MM1/ /IM01/	<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>	OK	OK
		<div><div><input checked="" type="checkbox"/></div><div>For details regarding the accuracy and calibration details please refer to Appendix 6</div></div>		
		<div><div><input checked="" type="checkbox"/></div><div>No delayed calibration has occurred</div></div>		
		<div><div><input type="checkbox"/></div><div>As per the initial assessment the monitored value is deemed to be correct.</div></div>		

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: 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="1106 619 1856 1153"> <tr> <td data-bbox="1106 619 1184 746"><input type="checkbox"/></td> <td data-bbox="1184 619 1856 746">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="1106 746 1184 842"><input type="checkbox"/></td> <td data-bbox="1184 746 1856 842">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="1106 842 1184 938"><input type="checkbox"/></td> <td data-bbox="1184 842 1856 938">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="1106 938 1184 1066"><input type="checkbox"/></td> <td data-bbox="1184 938 1856 1066">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="1106 1066 1184 1153"><input type="checkbox"/></td> <td data-bbox="1184 1066 1856 1153">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"/>														
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												

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 / / ACM1 / / ER1 / / SDR2 / / GSS1RD / - GSS3RD / GSSF1RD /	<p><i>Description:</i></p> <p>The parameter measured the methane % by an online gas analyser for Flare 2, GSS1, GSS2, GSS3 and GSSF1.</p> <p>During this monitoring period, GE4 was not operational in April and Flare 2 was not in operation from September to December.</p> <p>However, during this monitoring period, there are several constant data in GSS1, GSS2 and GSS3</p> <p>The data is for reporting purposes and have impact to the ER calculations and once for the crediting period.</p> <p><i>Verifier's action:</i></p> <p>The data in the MR was crosschecked with the CH⁴ data in the ER spreadsheet.</p> <p>The shutdown record for GE4 was reviewed to crosscheck the downtimes for the month of April. Therefore, no data recorded.</p> <p>The constant data for those periods for GSS1, GSS2 and GSS3 in the ER spreadsheet are reviewed and crosscheck with the raw data records.</p> <p>The data for this parameter is for reporting purposes with no impact to the ERs.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD and applied methodology</p> <table border="1"> <tr> <td><input type="checkbox"/></td> <td>In this context the following findings have been raised:</td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> </tr> </table>	<input type="checkbox"/>	In this context the following findings have been raised:	<input type="checkbox"/>		OK	OK
<input type="checkbox"/>	In this context the following findings have been raised:							
<input type="checkbox"/>								
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)</p>	/ MR / / ER1 /	<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				

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"/>			
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/ /CF12/ /SDR1/ /FRD2/ /DML1/	<p><i>Description:</i></p> <p>This parameter monitors the temperature of the exhaust gas of the enclosed flare 2.</p> <p>A temperature sensor (thermocouple) is installed at the flare to capture the data.</p> <p>There was a delay in calibration for this monitoring period.</p> <p><i>Verifier's action:</i></p> <p>The data is review and crosschecked with ER spreadsheet for correctness.</p> <p>The shutdown records, flare data and daily monitoring logsheet reviewed.</p> <p>The calibration report was review on the recalibration date and calibration error.</p> <p>A delay in calibration and applying the instrument error as MPE is not in accordance to VVS version 2.0, §366.</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.6-9</p>		CAR E.6-9	OK
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)	/MR/ /ER1/	<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.6-9	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>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>	/IM01/ /MM1/ /CF12/ /E7/	<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 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 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		
		<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:		

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.6-9		
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/ /SDR/ /DML1/	Description: The flaring system is monitored whenever in operation by an UV flame detector continuously and data recorded in the DCS system. The flare was not operating from September to December during this monitoring period Verifier's action: The flame detection is crosschecked with the amount of gas sent to flare 2 for combustion. The operation data is crosschecked with the raw data to confirm the data is captured every minute and aggregated on a daily, monthly and yearly basis. The operation flare records are reviewed to crosscheck the flare was not in operation during September to December 2020. The data is for monitoring of the flare operation purposes with no impact to the ERs 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.	
<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> <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>	/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:			
			<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. $V_{t,wb}$ ($LFG_{flare, Flare, No. 2, y}$, $LFG_{electricity, GSS1, y}$, $LFG_{electricity, GSS2, y}$, $LFG_{electricity, GSS3, y}$, $LFG_{electricity, GSSF1, y}$)		Description: Volumetric flow of the gaseous stream in time interval t on a wet basis		
a) Measurement / Determination method (VVS, §§ 363-367) 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 / / ER1 / / ACM1 / / E4 / / E6 / / DML1 / / DML3 – DML6 / / MS2- MS8 / / SDR1 – SDR7 / / F2RD / / GSS1RD / / GSS2RD / / GSSF1RD / / GSS3RD /	<p><i>Description:</i></p> <p>This parameter measures the amount of landfill gas combusted by the 6 gas engines and the 1 flare system.</p> <p>An independent flow meter for Flare No.2, ($FT2_{Flare No.2}$), GSS1 ($FT3_{GSS1}$), GSS2 ($FT3_{GSS2}$), GSS3 ($FT3_{GSS3}$) and GSS F1 ($FT3_{GSSF1}$) to measure the amount of LFG combusted by each of 6 gas engines and the flare.</p> <p>The data is measure continuously, captured every 1 minute and recorded in the DCS, aggregated hourly, weekly and monthly.</p> <p>GSS1 for gas engines 2 & 3, GSSF1 for gas engine 1 and GSS3 for gas engines 4, 5 & 6 are in operation.</p> <p>During this monitoring period, a delay in calibration for Flare 2 FT1, Flare 2 FT2, GSS1 FT3, GSS2 FT3 & FT7 and GSS3 FT3FT8 & FT9</p> <p><i>Verifier's action:</i></p> <p>The data in the ER spreadsheet is reviewed to verify the data reported on weekly basis.</p> <p>The operation of GE 1, 2, 3, 4, 5 & 6 are crosschecked with the daily manual reading log sheet and shut down records.</p> <p>The operating and non-operating periods for Flare 2 are verified against the shutdown records.</p> <p>The calibration report for FT7 is not available for review.</p> <p>The amount of gas send to the gas engines for power generation whether exceed 6.6MW to comply the requirements described in the approved revised PDD version 21.3 is unclear.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD</p>	CLE-6-2 CAR E-6-10	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:		
		<input checked="" type="checkbox"/>	CL E.6-2		
		<input checked="" type="checkbox"/>	CAR E.6-10		
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative 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 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 6-10 CAR E.7-2	OK
	/PDD1/	<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6		
	/ER1/	<input type="checkbox"/>	No delayed calibration has occurred		
	/ACM1/	<input checked="" type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.		
	/CF15/	<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.		
	/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"/>	A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:		
	/CF43/	<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		
	/CF53-CF55/	<input type="checkbox"/>	The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument		
	/IM01/				
	/MM1/				

Checklist Item (incl. guidance for the verification team)	Refe- rence	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.	
			<input checked="" type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument			
			<input checked="" type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals			
			<input checked="" type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.			
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:			
			<input checked="" type="checkbox"/>	CAR E.6-10		
			<input checked="" type="checkbox"/>	CAR E.7-2		
9. $V_{CH4,m,db}$ ($W_{CH4,Flare\ No.2,y}$, $W_{CH4,GSS1,y}$, $W_{CH4,GSS2,y}$, $W_{CH4,GSS3,y}$, $W_{CH4,GSSF1,y}$)		Description: Volumetric fraction of greenhouse gas i in a time interval t on a dry 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>	/MR/ /PDD1/ /ACM1/ /ER1/ /CF44/ /DML1/ /DML4/ /MS6/ /SDR1/ /SDR5/ /E4/	Description: This parameter monitors the fraction of methane for Flare No. 2, GSS1, GSS2, GSS3 and GSSF1 continuously by an on-line gas analyser. The fraction of methane is measured in dry basis and captured continuously. The data is recorded in the DCS every minute, aggregated hourly, daily, weekly and monthly. During this monitoring period, there are delays in calibration for flare 2, exchange of analyser, use of portable gas analyser, constant data for GSS2 and GSS3 and LFG temperature above 60°C for GSS3. Verifier's action: According to the approved revised PDD, the fraction is measured in dry basis.		CAR E.6-14	OK	

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.								
	/FRD2/ /GSS1RD / /GSS2RD / /GSS3RD / /GSSF1RD/ /MS2/	<p>The data in the ER spreadsheet is reviewed to verify the data for Flare 2, GSS1, GSS2, GSS3 and GSSF1 for correctness and reported on hourly, daily and monthly.</p> <p>The following issues were identified at draft verification stage.</p> <p>The parameter representation for $W_{CH_4,GSS3,y}$ is not listed.</p> <p>F2 gas analyser serial no. 31453 is not traceable</p> <p>GSS2 gas analyser serial no: 14464 has calibration error of 3.58% found during calibration on 14/02/2020. The measured data from 01/04/2020 to 13/12/2020 incorrect.</p> <p>The use of portable CH₄ analyser for Jun 20 Main to Dec 20 Main tabs in ER1 spreadsheet are not reported.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD and applied methodology</p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>In this context the following findings have been raised:</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-11</td></tr> <tr> <td><input type="checkbox"/></td><td></td></tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CAR E.6-11	<input type="checkbox"/>					
<input checked="" type="checkbox"/>	In this context the following findings have been raised:											
<input checked="" type="checkbox"/>	CAR E.6-11											
<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>	/MR/ /PDD1/ /ACM1/ /ER1/ /CF16/ /CF24/	<table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>For details regarding the accuracy and calibration details please refer to Appendix 6</td></tr> <tr> <td><input type="checkbox"/></td><td>No delayed calibration has occurred</td></tr> <tr> <td><input type="checkbox"/></td><td>As per the initial assessment the monitored value is deemed to be correct.</td></tr> </table>	<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6	<input type="checkbox"/>	No delayed calibration has occurred	<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.	CAR E.6-11 CAR E.7-3	OK
<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan											
<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6											
<input type="checkbox"/>	No delayed calibration has occurred											
<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.											

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>	/CF34/ /CF44/ /CF56/ /E4/ /MS2/ /IM01/ /MM1/	<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 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"/>		
	<input checked="" type="checkbox"/>	CAR E.7-3			
10. T_t (T_{TT1,F2}, T_{TT1,GSS1}, T_{TT1,GSS2}, T_{TT1,GSS3}, T_{TT1,GSSF1})		Description: Temperature of the gaseous stream in time interval t			
a) Measurement / Determination method	/MR/	Description:			OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.					
(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>	/PDD1/	<div>This parameter measures the LFG temperature for Flare 2, GSS1, GSS2, GSS3 and GSSF1. The temperature is measured continuously measured by an integrated temperature transmitter with a sensor to capture the data.</div> <div>The measured data will be converted to normalise value that does not require further conversion at the data logger and DCS.</div> <div>The data is recorded in the DCS every minute, aggregated hourly, daily, weekly and monthly.</div> <div>There is delay in calibration and MPE applied for T_{TT1,GSSF1}.</div> <div>Verifier's action: The data in the ER spreadsheet reported is on monthly basis. During review of data, the following were found: The parameter representation for T_{TT1,GSS3} is not listed The MPE applied for T_{TT1,GSSF1} is not according to the calibration error of 0.2% found during calibration on 14/12/2020.</div> <div>Conclusion: The parameter is monitored in accordance with the approved PDD and applied methodology</div> <table><tr><td><input checked="" type="checkbox"/></td><td>In this context the following findings have been raised:</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CAR E.6-12</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CAR E.8-5</td></tr></table>		<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CAR E.6-12	<input checked="" type="checkbox"/>	CAR E.8-5	/ACM1/
	<input checked="" type="checkbox"/>			In this context the following findings have been raised:						
	<input checked="" type="checkbox"/>			CAR E.6-12						
	<input checked="" type="checkbox"/>			CAR E.8-5						
	/ER2 - ER3/									
	/CF11/									
	/CF21/									
	/CF31/									
	/CF41/									
	/CF51/									
/FRD2/										
/GSS1RD /										
/GSS2RD /										
/GSS3RD /										
/GSSF1RD /										
/SDR1/										
/SDR5/										
/E5/										
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the</i>	/MR/	<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.6-12	OK					
	/PDD1/	<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6							
	/ACM1/									
	/TMF/									

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.								
<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> <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>	/ER2 - ER3/ /E5/ /CF11/ /CF21/ /CF31/ /CF41/ /CF51/ /IM01/ /MM1/	<input type="checkbox"/> No delayed calibration has occurred										
		<input type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct.										
		<input checked="" type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.										
		<input checked="" type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: Refer Appendix 6 for details End date of delay: Refer Appendix 6 for details										
		<input checked="" type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the: <table border="1" data-bbox="1108 754 1856 1289"> <tr> <td data-bbox="1108 754 1182 882"><input checked="" type="checkbox"/></td> <td data-bbox="1182 754 1856 882">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 882 1182 978"><input checked="" type="checkbox"/></td> <td data-bbox="1182 882 1856 978">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 978 1182 1074"><input type="checkbox"/></td> <td data-bbox="1182 978 1856 1074">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 1074 1182 1201"><input checked="" type="checkbox"/></td> <td data-bbox="1182 1074 1856 1201">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 1201 1182 1289"><input checked="" type="checkbox"/></td> <td data-bbox="1182 1201 1856 1289">The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.</td> </tr> </table>			<input checked="" type="checkbox"/>	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 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											
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<input checked="" type="checkbox"/>	The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals											
<input checked="" type="checkbox"/>	The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.											
<input checked="" type="checkbox"/> In this context the following findings have been raised:												
<input checked="" type="checkbox"/> CAR E.6-12												
<input checked="" type="checkbox"/> CAR E.8-5												

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
11. P_t ($P_{PT2,F2}$, $P_{PT2,GSS1}$, $P_{PT2,GSS2}$, $P_{PT2,GSSF3}$, $P_{PT2,GSSF1}$)		Description: Pressure 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>	<p>/MR/ /PDD1/ /ACM1/ /ER1/ /ER2-ER4/ /CF13/ /CF22/ /CF32/ /CF42/ /CF52/ /FRD2/ /GSS1RD / /GSS2RD / /GSS3RD / /GSSFIRD/ /DML1, DML3 to DML6/ /SDR1 – SDR7/</p>	<p><i>Description:</i></p> <p>This parameter measures the pressure of the LFG at Flare 2, GSS1, GSS2, GSS3 and GSSF1.</p> <p>The measurement is continuously by an integrated pressure transmitter with a sensor to capture the data.</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 data is recorded in the DCS every minute, aggregated hourly, daily and monthly.</p> <p>During this monitoring, there are delay in calibrations and the MPE applied for GSSF1, GSS2 and GSS3.</p> <p><i>Verifier's action:</i></p> <p>The data in the ER spreadsheet are reported on weekly basis.</p> <p>The raw data was reviewed and crosschecked with ER spreadsheet for consistency.</p> <p>During review of the calibration records and data applied in the ER calculation, the following were found:</p> <p>GSS3:</p> <p>The start date applied for the delay in calibration for $PT_{PT2,GSS3}$ is incorrect.</p> <p>The accuracy class for GSS3, P_t ($PT_{PT2,GSS3}$) is not according to the equipment specification.</p> <p>The accuracy class for GSS3, P_t ($PT_{PT2,GSS3}$) describes in the calibration report dated 15/12/2020 issued by CT Services is incorrect.</p> <p>The MPE applied for GSS3, P_t ($PT_{PT2,GSS3}$) is not according to the calibration error of 0.25% found during calibration on 14/12/2020.</p>	<p>CAR E.6-43 CAR E.8-5 CAR E.8-6</p>	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.												
		<p>MPE applied for PT_{P2,GSSF1} has been corrected to follow the calibration error of 0.7% found during the calibration on 14/12/2020.</p> <p>GSS2:</p> <p>The MPE applied for PT_{PT2GSS2} has been corrected to follow the calibration error of 0.8% found during the calibration on 14/12/2020..</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD and applied methodology</p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>In this context the following findings have been raised:</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-13</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.8-5</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.8-6</td></tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CAR E.6-13	<input checked="" type="checkbox"/>	CAR E.8-5	<input checked="" type="checkbox"/>	CAR E.8-6						
<input checked="" type="checkbox"/>	In this context the following findings have been raised:															
<input checked="" type="checkbox"/>	CAR E.6-13															
<input checked="" type="checkbox"/>	CAR E.8-5															
<input checked="" type="checkbox"/>	CAR E.8-6															
<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/ /ACM1/ /ER2 – ER4/ /CF11/ /CF21/ /CF31/ /CF41/ /CF51/ /FRD2/ /GSS1RD /	<table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>For details regarding the accuracy and calibration details please refer to Appendix 6</td></tr> <tr> <td><input type="checkbox"/></td><td>No delayed calibration has occurred</td></tr> <tr> <td><input type="checkbox"/></td><td>As per the initial assessment the monitored value is deemed 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 checked="" type="checkbox"/></td><td> 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 </td></tr> </table>	<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6	<input type="checkbox"/>	No delayed calibration has occurred	<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.	<input type="checkbox"/>	Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.	<input checked="" type="checkbox"/>	Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: Refer Appendix 6 below for details End date of delay: Refer Appendix 6 below for details	CAR E.6-13 CAR E.8-5 CAR E.8-6	OK
<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan															
<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6															
<input type="checkbox"/>	No delayed calibration has occurred															
<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.															
<input type="checkbox"/>	Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.															
<input checked="" type="checkbox"/>	Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: Refer Appendix 6 below for details End date of delay: Refer Appendix 6 below for details															

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
	/GSS2RD / /GSS3RD / /GSSF1RD/ /SDR1/ /SDR5/ /E6/	<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 calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals		
		<input checked="" type="checkbox"/>	The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.		
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:		
		<input checked="" type="checkbox"/>	CAR E.6-13		
		<input checked="" type="checkbox"/>	CAR E.8-5		
		<input checked="" type="checkbox"/>	CAR E.8-6		
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) <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)).</i>	/MR/ /PDD1/ /TMF/	<i>Description:</i> 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.		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>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p>		<p><i>Verifier's action:</i></p> <p>The data applied is in the MR is crosscheck with the tool for correctness.</p> <p>The data is not applied for ER calculations.</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/ /TMF/ /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:</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="1111 256 1182 320"></td> <td data-bbox="1182 256 1859 320">scheduled date of calibration and the actual date of calibration</td> </tr> <tr> <td data-bbox="1111 320 1182 416"><input type="checkbox"/></td> <td data-bbox="1182 320 1859 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="1111 416 1182 512"><input type="checkbox"/></td> <td data-bbox="1182 416 1859 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="1111 512 1182 632"><input type="checkbox"/></td> <td data-bbox="1182 512 1859 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="1111 632 1182 735"><input type="checkbox"/></td> <td data-bbox="1182 632 1859 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="1111 735 1182 783"><input type="checkbox"/></td> <td data-bbox="1182 735 1859 783">In this context the following findings have been raised:</td> </tr> <tr> <td data-bbox="1111 783 1182 826"><input type="checkbox"/></td> <td data-bbox="1182 783 1859 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"/>																		
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																
<p>a) Measurement / Determination method (VVS, §§ 363-367)</p> <p>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/ /O3/</p>	<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 crosschecked during onsite.</p> <p>However, it is unclear how the calculation to obtain the lower bound 95% confidence interval level is determined.</p>	CLD-6-3	OK														

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
		<p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD and applied methodology</p>			
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:		
		<input checked="" type="checkbox"/>	CL E.6-3		
<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/ /O3/ /MM1/ /IM01/	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</p> <p>For details regarding the accuracy and calibration details please refer to Appendix 6</p> <p>No delayed calibration has occurred</p> <p>As per the initial assessment the monitored value is deemed to be correct.</p> <p>Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.</p> <p>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>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> <p><input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument</p>	CL D.6-3	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 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 D.6-3		
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) 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.	/MR/ /PDD1/ /O3/	Description: The parameter is measured continuously by an online gas analyser. The data stated in MR is an average of the measured data for the monitoring period from 01/04/2020 to 31/12/2020. The data is for reporting purposes and not applied in ER calculations. Verifier's action: The calculation for the average data stated in MR is crosscheck with the measured data for the monitoring period for correctness. However, it is unclear on how the value is determined. Conclusion: The parameter is monitored in accordance with the approved revised PDD and applied methodology <input checked="" type="checkbox"/> In this context the following findings have been raised: <input checked="" type="checkbox"/> CL E.6-4		CL E.6-4	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
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/ /O3/ /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	CLE-6- 4	OK
		<input type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6		
		<input type="checkbox"/>	No delayed calibration has occurred		
		<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.		
		<input type="checkbox"/>	Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.		
		<input type="checkbox"/>	Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY		
		<input type="checkbox"/>	A delay in calibration has been identified, the PP applied 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 type="checkbox"/>	CL E.6-4		
15. Status of biogas destruction device		Description: Operational status of biogas destruction devices			
a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment 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/ /ER1/ SDR1- SDR7/ /MS2- MS8/ /DML1 – DML6/ /ER6/ /ER8/	Description: This parameter monitors the operation of the energy plant of the 6 gas engines and flare 2 operating hours. A run hour meter records the running hour for each of the gas engines. The reading is recorded daily by the responsible operator. The difference in start day and the end day of the month is the running hours for the month The operation of the flare system is measured continuously by a flame detector whenever the flare operates. The data is capture in the DCS system. Verifier's action: The daily records were crosschecked with the shut downtime, maintenance and service and operation hour records. The data from this parameter is not applied for ER calculations. 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

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/ /PDD1/ /EF6/ /ER8/ /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		
		<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 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			
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/ /ER1/ /O1/	Description: The parameter monitors the usage of diesel by the standby genset. A fuel meter is use to monitor the diesel consumption. The meter installed at the genset is part of engine management system therefore, no calibration is required. During this monitoring period, the amount fuel consumed is mainly for monthly testing of the genset. According to the approved PDD, the usage of fuel is crosscheck with purchased quantities and usage stock change. Verifier's action: The monthly testing and fuel records were verified to crosscheck the monthly test run dates. During the onsite the fuel gauge was inspected for the amount fuel in the tank was approx. 400 liters based on the gauge meter. For this monitoring period the amount of diesel used for the monthly testing is 36 litres. For the calculation, the amount of diesel in litre is converted to t/y by multiplying with the density of diesel (kg/l). The data applied in the ER spreadsheet has been verified. Conclusion: The monitoring of the parameter is in accordance to the approved PDD		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: <table border="1" data-bbox="1111 1078 1854 1385"> <tr> <td data-bbox="1111 1078 1182 1198"><input type="checkbox"/></td> <td data-bbox="1182 1078 1854 1198">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 1198 1182 1294"><input type="checkbox"/></td> <td data-bbox="1182 1198 1854 1294">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 1294 1182 1385"><input type="checkbox"/></td> <td data-bbox="1182 1294 1854 1385">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> </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 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"/>			
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. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.	/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: The value applied by the project owner is the default value from IPCC since the data was not available from the fuel supplier. Therefore, is applied appropriately Conclusion: The parameter is monitored in accordance with the approved PDD. <input type="checkbox"/> In this context the following findings have been raised: <input type="checkbox"/>		OK	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/ /MM1/ /ER1/ /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		
		<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 type="checkbox"/>	In this context the following findings have been raised:		
		<input type="checkbox"/>			
18. NCV_{i,y}		Description: Weighted average net calorific value of fuel type i in year y			
a) Measurement / Determination method (VVS, §§ 363-367) 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/ /IPCC/ /ER1/	Description: 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. 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: 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. The ER calculation is crosscheck for correctness. Conclusion: The monitoring of the parameter is in accordance to the approved PDD. <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/ /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 <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>		<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="1108 754 1856 1289"> <tr> <td data-bbox="1108 754 1182 882"><input type="checkbox"/></td> <td data-bbox="1182 754 1856 882">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 882 1182 978"><input type="checkbox"/></td> <td data-bbox="1182 882 1856 978">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 978 1182 1074"><input type="checkbox"/></td> <td data-bbox="1182 978 1856 1074">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 1074 1182 1201"><input type="checkbox"/></td> <td data-bbox="1182 1074 1856 1201">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 1201 1182 1289"><input type="checkbox"/></td> <td data-bbox="1182 1201 1856 1289">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"/>														

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	18/09/2019	14/12/2020	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 17/09/2020 To: 13/12/2020
	TEG _m : Flare 2	B838901937	Honeywell	±0.5% of span	18/09/2019	14/12/2020		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 17/09/2020 To: 13/12/2020
Pressure Transmitter	Pt - P _{PT2,F2} (Flare 2)	5916057	Rosemount	±0.1%	18/09/2019	14/12/2020	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 17/09/2020 To: 13/12/2020
Flow Meter	V _{t,wb} – FT1 - FT119 (Flare 2)	4972946 / FT119 (8102101)	Rosemount / Kingsway	±1.0%	04/06/2018	14/12/2020	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 03/04/2020 To: 13/12/2020
	V _{t,wb} – FT2 – FT140 (Flare 2)	5476627 / FT140 10031701	Rosemount / Kingsway	± 0.5%	04/06/2018	14/12/2020	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 03/04/2020 To: 13/12/2020
Gas Analyser	V _{CH4,m,db} – Flare 2	33542	Guardian Plus (97460)	± 2% of full scale	18/09/2019	-	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 17/09/2020 To: 31/12/2020

Gas Engine 1 – GSSF1									
Temperature Transmitter	$T_t - T_{TT1,GSSF1}$ (GSSF1 GE1)	100944768	PR Electronics	$< \pm 0.05\%$ of span	18/09/2019	14/12/2020	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 17/09/2020 To: 13/12/2020
Pressure Transmitter	$P_t - P_{T2, GSSF1}$ (GSSF1 GE1)	02492864	Rosemount	$\pm 0.25\%$	18/09/2019	14/12/2020	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 17/09/2020 To: 13/12/2020
Flow Meter	$V_{t,wb} - FT3$ (GSSF1 – GE1)	02768007 / FT161 (11011001)	Rosemount	$\pm 0.5\%$	18/09/2019	-	24 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Gas Analyser	$V_{CH4,m,db} - GSSF1$	21905310261 000000001	Cubic-Ruiyi	$\pm 1.0\%$	05/06/2019	14/12/2020	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 04/06/2020 To: 13/12/2020
Power Meters	$EG_{PJ,y}:$ EL4 (GSSF1)	210225256	EDMI	Class 0.5s	14/03/2019	-	24 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	$EG_{PJ,y}:$ 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)	Itron	Class 0.20	01/04/2011	-	5 years	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/04/2020 To: 31/12/2020
		53099691 (Check)			01/04/2011	-		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/04/2020 To: 31/12/2020
Gas Engine 2 & 3 – GSS1									
Temperature Transmitter	$T_t - T_{TT1,GSS1}$ (GSS1 GE2 & GE3)	B527143837	Honeywell	$\pm 1.0\%$	18/09/2019	14/12/2020	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 17/09/2020

									To: 13/12/2020
Pressure Transmitter	Pt - P _{PT2,GSS1} (GSS1 GE2 & GE3)	5584784	Rosemount	±0.25%	21/02/2020	14/12/2020	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Flow Meters	V _{t,wb} – FT3 (GSS1 – GE2 & G3)	5988022	Rosemount	± 0.5%	11/10/2018	14/12/2020	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 10/10/2020 To: 13/12/2020
Gas Analyser	V _{CH4,m,db} – GSS1	33436	Guardian Plus	±2% of full scale	26/07/2019	14/12/2020	Annual	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 25/07/2020 To: 13/12/2020
Power Meters	EG _{EC,y} : EL6 (import)	2661930098	IME NEMO 96HDL	Class 0.5s	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 (±0.5%)	25/01/2018	09/12/2020	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/04/2020 To: 31/12/2020
	EG _{PJ,y} : EL10 – GSS1 generation (GE3)	211516863	EDMI	Class 0.5s (±0.5%)	25/01/2018	09/12/2020	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/04/2020 To: 31/12/2020
	EG _{PJ,y} : EL11 – GSS1 GE2 & GE3 to grid	908705152 (Main)	EDMI	Class 0.5s (±0.5%)	06/12/2009	-	5 years	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/04/2020 To: 31/12/2020
		908705154 (Check)			06/12/2009	-		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/04/2020 To: 31/12/2020
Gas Engine 4 – GSS2									

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Temperature Transmitter	Tt - T _{TT1,GSS2} (GSS2 GE4)	ATT2100415 1000	Autrol	± 0.1%	18/09/2019	14/12/2020	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 17/09/2020 To: 13/12/2020
Pressure Transmitter	Pt - P _{PT2,GSS2} (GSS 2 GE4)	APT3200-4150998	Autrol	± 0.075% of span	18/09/2019	14/12/2020	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 17/09/2020 To: 13/12/2020
Flow Meter	V _{t,wb} – FT3 (GSS2 – GE4)	C150327	Combimass Binder	± 2.5% of reading + 0.2% of full scale	10/12/2018	19/02/2021 -	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 09/12/2020 To: 31/12/2020
	V _{t,wb} – FT7 (GSS2 – GE4)	5215-8535	CSI-Tech	±(1.5% of reading + 0.3% FS)	23/11/2015	-	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/04/2020 To: 31/12/2020
Gas Analyser	V _{CH4,m,db} – GSS2	14464	Guardian Ng	±2% of full scale	03/02/2020	14/12/2020	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Power Meter	EG _{PJ,y} : EL12 – GSS2 GE4 Generation	213545834	EDMI	Class 0.5s (±0.5%)	08/08/2018	09/12/2020	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 07/08/2020 To: 08/12/2020
GSS3 – GE 5 & 6									
Temperature Transmitter	Tt - T _{TT1,GSS3} (GSS3 GE5 & 6)	155132 0001	Status Instrument	± 2.0%	22/02/2019	14/12/2020	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 21/09/2020 To: 13/12/2020
Pressure Transmitter	Pt - P _{PT2,GSS3} (GSS3 GE5 & 6)	N7014C2112 9	Endress Hauser +	± 0.15%	25/07/2018	14/12/2020	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 01/04/2020

									To: 13/12/2020
Flow Meter	$V_{t,wb}$ – FT3 (GSS3 – GE5 & 6)	3604693	Rosemount	$\pm 0.065\%$	17/08/2018	14/12/2020	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 16/08/2020 To: 13/12/2020
	$V_{t,wb}$ – FT8 (GSS3 – GE5)	C180382	Binder Combimass	$2.5\% \pm 0.1\%$	26/07/2018	-	24 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	$V_{t,wb}$ – FT9 (GSS3 – GE 6)	C180381			26/07/2010	-		<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Gas Analyser	$V_{CH4,m,db}$ – GSS3	17167	Guardian Ng	$\pm 2\%$ of full scale	27/01/2020	-	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Power Meter	$EG_{PJ,y}$: EL14 – GSS3 GE5 Generation	218287221	EDMI	Class 0.5s ($\pm 0.5\%$)	27/04/2018	09/12/2020	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 26/04/2020 To: 08/12/2020
Power Meter	$EG_{PJ,y}$: EL15 – GSS3 GE6 Generation	218287222	EDMI	Class 0.5s ($\pm 0.5\%$)	27/04/2018	09/12/2020	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 26/04/2020 To: 08/12/2020
	$EG_{PJ,y}$: EL16 – GSS3 GE4 , 5 & 6 to grid	918703332 (Main)	Genius (MK6E)	Class 0.5s ($\pm 0.5\%$)	11/05/2019	12/08/2020	5 years	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
		918703333 (Check)			11/05/2019	12/08/2020		<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
04.0	6 April 2021	Revision to: Reflect the “Clarification: Regulatory requirements under temporary measures for post-2020 cases” (CDM-EB109-A01-CLAR).
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).
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: project activities, verifying and certifying		