



**Verified Carbon
Standard**

JOBURG LANDFILL GAS TO ENERGY PROJECT



Carbon
— C H E C K —

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VCS Standard Version	Version 4.7
Client	ENERGY Joburg RF (PTY) Limited
Prepared by	Carbon Check (India) Private Ltd.

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Summary:

The client ENERGY Joburg RF (PTY) Limited has appointed the validation/verification body Carbon Check (India) Private Ltd. to perform a verification of VCS Project Activity “Joburg Landfill Gas to Energy Project” in South Africa (hereafter “project activity”) for the period from 01-November-2024 to 31-October-2025.

The project proponent applied the approved CDM Methodology: ACM0001: Large-scale Consolidated Methodology Flaring or use of landfill gas, Version 19. In addition, the applicable tools referenced in the methodology and the PD have been used.

The verification consisted of the following three phases: i) a desk review of the Monitoring Report ii) Onsite Visit; iii) the resolution of outstanding issues and internal technical review followed by the issuance of the final verification report and opinion. In the course of the verification process 07 CARs, 07 CLs and 00 FARs were raised, all the CARs and CLs are closed. No FARs were raised during the course of verification. The list of Clarification and Corrective Actions Requests (CL and CAR) is presented in this report.

CARBON CHECK confirms that the project is implemented in accordance with the validated VCS-PD and the monitoring plan; and then, claimed emissions reductions are calculated without material misstatements. No uncertainties associated with the calculations of emission reductions have been observed by the validation team.

CARBON CHECK has performed the verification of Joburg Landfill Gas to Energy Project on the basis of all issues and criteria of VCS Standard version 4.7/B01-1/ and VCS Program Guide version 4.4/B01-2/ for VCS projects and also on the criteria given to provide for consistent project operations, monitoring and reporting. Hence, in CARBON CHECK’s opinion the project correctly applies the baseline and monitoring methodology ACM0001: Large-scale Consolidated Methodology Flaring or use of landfill gas, Version 19/B02/ and meets the relevant UNFCCC requirements for the CDM Methodology, Voluntary Carbon Standard requirements and the relevant host country criteria.

Therefore, CARBON CHECK is able to certify that the emissions reductions from the “Joburg Landfill Gas to Energy Project” project during the period from 01-November-2024 to 31-October-2025 amount to 227,834 tonnes of CO₂e. The year-wise break up of verified emission reduction is as below:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
01-November-2024 to 31-December-2024	43,839	44	0	43,795
01-January-2025 to 31-October-2025	163,020	226	0	184,039
Total	228,104	270	0	227,834

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1 INTRODUCTION

1.1 Objective

ENERGY Joburg RF (PTY) Limited (Project Proponent) has appointed CARBON CHECK for verification service for the registered VCS project - “Joburg Landfill Gas to Energy Project” (VCS Project ID 1240) located in South Africa against the requirements of the VCS Program.

Verification is the periodic independent review and ex post determination of both quantitative and qualitative information by a Validation and Verification Body (VVB) of the monitored reductions in GHG emissions that have occurred as a result of the VCS project activity during a defined monitoring period. The purpose of verification is to review the monitoring results and verify that the monitoring methodology was implemented according to the monitoring plan and monitoring data and used to confirm the reductions in emissions is sufficient, definitive and presented in a concise and transparent manner. Carbon Check’s objective is to perform a thorough, independent assessment of the registered projects activities. In particular, the monitoring plan, monitoring report and the project’s compliance are verified against the relevant criteria and guidance documents provided by VCS. This allows for the confirmation that the project has been implemented in accordance with the registered VCS PD and conservative assumptions, as documented. And, also to confirm if the monitoring plan is in compliance with the VCS PD /03/ and approved monitoring methodology/B02/. The objective of this verification was to verify and certify emission reductions reported for the “Joburg Landfill Gas to Energy Project” for the period from 01-November-2024 to 31-October-2025.

1.2 Scope and Criteria

The verification of this project is based on the registered Project Description/03/, the Monitoring Report of this monitoring period /01/, emission reduction calculation spread sheet /02/, supporting documents made available to the verifier and information collected through performing interviews and during the onsite visit assessment. Furthermore, publicly available information was considered as far as available and required.

Carbon Check (India) Private Limited has employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

The verification is carried out on the basis of the following requirements (latest available on VCS website at the time of verification), applicable for this project activity:

- VCS Standard version 4.7
- VCS Program Guide version 4.4
- VCS Validation and Verification Manual version 3.2

- Program Definitions (v4.4)
- Registration & Issuance Process (v4.4)
- Approved CDM methodology (ACM0001: Large-scale Consolidated Methodology Flaring or use of landfill gas, Version 19)
- Other relevant rules, including the host country legislation

The scope of this verification, by independent checking of objective evidence, is as follows:

- To verify that the project is implemented as described in the project description
- To assess the project's compliance with other relevant rules including the host country legislation.
- To assess the implementation of the monitoring plan content as mentioned in the registered VCS-PD
- To confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions (VERs/VCUs) without any double counting and
- To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation /01/, /02/.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

The verification shall ensure that the reported emission reductions are complete and accurate in order to be certified.

The method and criteria used for verification consisted of the following phases:

1. Completeness check and desk review:
2. Onsite Visit;
3. Resolution of outstanding issues and issuance of final verification report and applicable VCS Validation and Verification Deeds of Representation.

Carbon Check (India) Private Ltd. conducts all its work under strict rules to safeguard impartiality and ensure the independence of the verification team. The verification VVB does not provide any consulting or recommendations for the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

1.3 Level of Assurance

- ☒ Reasonable level of assurance
- ☐ Limited level of assurance

The level of assurance of the verification report falls under reasonable assurance engagements as selected by the Client. The verification team verified the complete monitoring data for all the parameters of the monitoring plan and confirms that the reported emission reductions are free from any type of material errors.

1.4 Summary Description of the Project

The project activity 'Joburg Landfill Gas to Energy Project' is a VCS project activity and involves collection and utilisation of the landfill gas at the Johannesburg landfill sites located in Johannesburg, South Africa. The objective of the project is to collect and destroy/utilise the LFG generated at five Johannesburg landfill sites. Prior to implementation of the project activity, the LFG was being freely emitted into the atmosphere resulting in GHG emissions. In the baseline scenario, the LFG would have been released into the atmosphere resulting in GHG (CH₄) emissions to the atmosphere. The electricity would have been produced in the fossil fuel based South African grid resulting in CO₂ emissions.

The project includes five sites. The Robinson Deep flare was commissioned on 27-May-2011 and electricity generation was commissioned on 26-November-2016. The Marie Louise landfill site flare was commissioned on 04-May-2012 and electricity generation was commissioned on 25-January-2018. The Goudkoppies one Biogas 2000Nm³/h flare and two ENER-G 1140KW electricity generation components were commissioned on 25-April-2017. The last two sites, namely Linbro Park and Ennerdale sites, are currently not constructed and will remain within the basket of projects, subject to economic drivers required to commit to build these sites.

The reported monitoring period for the project activity is from 01-November-2024 to 31-October-2025. This is the 5th monitoring period under VCS.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The method and criteria used for verification:

The verification consists of the following three phases:

1. Completeness check and desk review of the validation report, monitoring plan, monitoring report, monitoring methodology, VCS PD, applicable tools in particular attention to the frequency of measurements, quality of metering equipment's including calibration requirements, QA/QC procedures, any changes to the project activity and new project activity instances and other relevant documents;
2. Onsite visit (including follow-up interviews with project stakeholders, when deemed necessary). The onsite visit assignment includes the following;
 - An assignment of implementation and operation of project activity with respect to validated VCS PD;
 - Review of information flows for generating, aggregating and reporting the monitoring parameters;
 - Interview with relevant personals to determine whether the operational and data collection procedures are implemented and in accordance with monitoring plan of the validated VCS PD;
 - Cross check of information and data provided in the monitoring report with plant logbooks, inventories, purchase records or similar data sources;
 - Check of monitoring equipment's, calibration frequency and monitoring practice in-line with methodology and validated VCS PD;
 - Review of assumptions made in calculating the emission reduction;
 - Implementation of QA/QC procedure in-line with the validated VCS PD and methodology requirement.

2.2 Document Review

The registered VCS PD/03/, VCS MR /01/, emission reduction calculation spread sheet /02/and supporting documents related to the project implementation, project design, monitoring and baseline were reviewed as per VCS standard version 4.7 requirements. The desk review included:

- A review of the data and information presented to verify completeness and consistency in accordance with VCS standard version 4.7 requirements/B01/;
- A review of the approved monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, quality of monitoring equipment (including calibration requirements) and the quality assurance and quality control (QA/QC) procedures;

- An evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of emission reductions.

Data input values were also checked from the records maintained by the project proponents. Results of calculations reported in the monitoring report were checked against data values as available from the project proponent in VER calculation sheet /02/.

These data values and other information related to project performance are available in the form of data records duly archived and maintained as per the quality assurance/quality control procedure specified as a part of monitoring plan in the registered VCS-PD.

Furthermore, the verification team used additional documentation by third parties like host-party legislation, technical reports referring to the project design or to the basic conditions and technical data.

2.3 Interviews

A physical onsite visit to the project activity was undertaken from 18-November-2025 to assess the implementation and operation of the project activity and to review evidence, and interview key personnel to confirm evidence associated with the data generation, aggregation, and calculation and reporting of the monitoring parameters. The onsite visit assessment addressed:

- An assessment of the project implementation and operation as per the PD (including physical inspection to confirm physical existence and operation of project components);
- Review of information flows for generating, aggregating and reporting the monitoring parameters;
- Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the monitoring report /01/.

The key personnel interviewed, and the main topics of the interviews are summarized in the table below.

S. No.	Name	Designation and Organization	Topic	Audit team members
/1/	David Cornish	General manager, Energy Joburg RF (Pty) Ltd	• Project Design • Project Implementation and operation status • Qualification and Training • Monitoring and reporting documentation • Quality Assurance – Management and operating system • Compliance with relevant laws	Campal Kadam
/2/	Xavier Pretorig	Maintenance engineer, Energy Joburg RF (Pty) Ltd		
/3/	Thato P.			
/4/	Mutele Roy			

/5/	Kamohelo Sof Hisane	Maintenance Technicians, Energy Joburg RF (Pty) Ltd		
/6/	Elleck Mkhri			
/7/	Tshekue Ntshindi			
/8/	Carl Nelson			
/9/	Tebego R .	Health Safety manager, Energy Joburg RF (Pty) Ltd	• Health & Safety Practices • PPE use, emergency controls, and gas/noise mitigation. • Restricted access, boundary controls, and entry procedures. • Worker roles, training, OHS procedures, and reporting mechanisms. • Equity and labour-law requirements. • Observed access controls preventing entry of community members, women, children, and other vulnerable groups. • Discussed non-discrimination and worker-protection policies. • Waste-handling areas and hazardous-material storage.	
/10/	Gerhard L.	Stakeholder management, (Energy Joburg RF (Pty) Ltd)	Assessed & Discussed points • Ongoing stakeholder communication processes and meeting records. • Stakeholder consultation records, including attendance registers and minutes. • Documentation on site visits by interested and affected parties. • Communication practices for sharing monitoring results with stakeholders. • Records of stakeholder inputs and how they are documented. Grievance Mechanism –	

			- Grievance register and reviewed how grievances are recorded. - Grievance redress procedure and its implementation at the site.	
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2.4 Site Visits

Carbon Check has conducted an onsite visit on 18-November-2025 for the assessment of the project activity. A reasonable level of assurance has been maintained through the onsite visit for the purpose of verification as follows:

- 1) An assessment of the implementation and operation of the project activity as per the registered VCS PD /03/
- 2) A review of information aggregating and reporting of the monitoring parameters
- 3) A cross-check between the emission reduction information provided in the MR /01/ and data from other sources (section 2.3 above).
- 4) A review of calculations and assumptions made in determining the GHG data and ERs /02/, and
- 5) An identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters.
- 6) The duly calibration/testing of all monitoring equipment was checked.
- 7) The monitoring processes, routines and documentations were audited to check their proper application.
- 8) The monitoring data were checked completely.

The verification team carried out on site interviews with representatives of PP on 18-November-2025.

The verification team conducted on-site interviews with the project proponent on 18-November-2025, during which a comprehensive review of project implementation, operational practices, and monitoring systems was undertaken. Throughout the visit, the team examined the project's operational setup, including flare operation, monitoring procedures, the measuring and data-collection systems, the accuracy and calibration of monitoring equipment, and the flow of data used for CER calculations.

As part of the assessment, the verification team reconfirmed—through interviews, review of records, and independent background checks—that the project activity is not participating in any emissions trading scheme nor subject to any binding emission cap, in line with the information reported in the Monitoring Report (MR). Discussions with site personnel further supported this conclusion.

The project's monitoring and measurement framework was observed to be well established. The team reviewed how operational data are collected, recorded, verified, and transferred for emission reduction

calculations. This included the inspection of monitoring instruments such as the thermocouples used to confirm flare temperature, electricity meters recording export to the Eskom grid, and other relevant sensors. Functionality tests and calibration records were reviewed, and the team confirmed that the monitoring equipment operated within required accuracy ranges during the monitoring period. The procedures for weekly checks, equipment testing, and documentation of operational parameters were also verified on-site.

Data management practices were discussed in detail, including the treatment of raw measurements, the internal QA/QC controls applied before CER calculation, and the mechanisms used to ensure completeness and consistency of data. The verification team examined the data flow from initial measurement through to inclusion in the emission reduction spreadsheet, confirming that the processes are consistently implemented and traceable.

Established operational practices were also reviewed. The project proponent maintains a routine of documenting meetings and circulating minutes to relevant personnel. The verification team reviewed several examples on-site and found the practice to be systematic and consistently applied. The grievance register /17/ was inspected, and the team verified that no grievances were recorded during the monitoring period through both physical review and interviews with responsible staff.

In relation to social and labor aspects, the team confirmed that the Employment Equity Policy /11/ is prominently displayed across all operational sites. Interviews with employees and observations during the visit indicated no concerns related to discrimination, gender-based issues, or unfair treatment. No indicators of forced labor or unjustified selectivity in hiring practices were identified. Staff demonstrated awareness of their rights and confirmed that no workplace-related grievances had been raised during the monitoring period.

The inspection further covered the project's operational components such as flare performance, thermocouple functionality, and electricity generation from landfill gas. The team verified that the flare and generation units were operating in accordance with the monitoring plan, and meters used to record electricity delivered to the Eskom grid were functioning as required. The project proponent's implementation and operational controls were found to be consistent with the registered monitoring methodology, and the verification team confirmed that the data and procedures reviewed support the accuracy of the CER calculations.

2.5 Resolution of Findings

Material discrepancies identified in the course of the verification are addressed either as CARs, CLs or FARs. Corrective action requests (CAR) are issued, where:

- i. Mistakes have been made with a direct influence on project results requiring adjustments of the VERs/VCUs monitoring report;

- ii. Applicable methodological specific requirements have not been met.

A Clarification request (CL) may be used where additional information is needed to fully clarify an issue or where the information is not transparent enough to establish whether a requirement is met.

A forward action request (FAR) should be issued, where:

- i. The actual project monitoring and reporting practices requires attention and /or adjustment for the next consecutive verification period, or
- ii. An adjustment of the MP is recommended.

In the context of FARs, risks have been identified, which may endanger the delivery of high-quality emissions reductions in the future, i.e. by deviations from standard procedures as defined by the MP. Consequently, such aspects should receive a special focus during the next consecutive verification. A FAR may originate from lack of data sustaining claimed emission reductions.

A total of 07 CARs and 07 CLs had been raised for the verification of the project activity, and all the findings have been closed.

2.5.1 Forward Action Requests

There are no forward action requests raised during the verification of the project activity.

2.6 Eligibility for Validation Activities

The Validation/Verification Body (VVB), Carbon Check (India) Private Ltd., holds accreditation for validation under the relevant sectoral scopes 13 and 01, and is therefore eligible to conduct the verification of the project activity for the monitoring period 01-November-2024 to 31-October-2025.

3 VALIDATION FINDINGS

3.1 Methodology Deviations

No methodology deviations have been applied to the project activity during the reported monitoring period.

3.2 Project Description Deviations

The VVB has assessed the information provided by the Project Proponent (PP) in Section 3.2.2 of the Monitoring Report (MR v1.5) regarding deviations from the registered Project Description (PD) in relation to Sustainable Development Goal (SDG) reporting. The registered PD considers only two SDGs, namely SDG 13 (Climate Action) and SDG 3 (Health and Well-being). However, in accordance with Section 3.17.1 of the VCS Standard, Version 4.7, a minimum of three SDG contributions must be reported for each monitoring period.

In this regard, the PP has incorporated SDG 7.2 (Affordable and Clean Energy) into the project's SDG contribution set for the current monitoring period, based on the utilisation of landfill gas for renewable electricity generation. The PP has clarified that this inclusion does not require any additional or supplementary data collection, as the relevant information is already embedded within the existing project activities and monitoring systems.

The PP has further confirmed that SDG 7.2 will be consistently monitored and reported in all subsequent monitoring periods alongside SDG 13 and SDG 3. It is also clarified that the inclusion of SDG 7 does not impact baseline emissions, the baseline scenario, additionality assessment, project design, leakage, or any other core carbon accounting parameters of the project. The VVB considers the deviation to be justified and in compliance with the applicable requirements of the VCS Standard v4.7.

3.3 New Project Activity Instances in Grouped Projects

This project activity is not a grouped project. It consists of several project activity instances that were validated at the time of registration, and no new instances have been added during the current monitoring period. The two remaining sites — Linbro Park and Ennerdale — have not yet been constructed and will remain within the project basket. Their implementation will depend on the economic conditions and investment drivers required to proceed with construction.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes

☒ No

4 VERIFICATION FINDINGS

4.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
Audit history	PP has provided the audit history in section 1.2 of MR. The verra/CDM registry page has been reviewed to confirm that the information provided in the MR is accurate. The number of years corresponding to each verification period has been accurately provided in the audit history table
Double counting and participation under other GHG programs	The project activity is registered with UNFCCC with registration number 6797. The issuance history of the project activity is provided in MR. The declaration of no double counting and participation under other GHG programs provided by PP/10/ has been reviewed to confirm the same.
No double claiming with emissions trading programs or binding emission limits	PP, In MR has declared that the project activities does not included in any emission trading program or binding emission limit which has been confirmed on the basis of independent research and on-site interviews of the responsible parties.
No double claiming with other forms of environmental credit	PP, In MR has declared that the project activities does not claim any other form of environmental credit which has been confirmed on the basis of independent research and on-site interviews of the responsible parties. The declaration of no double claiming with other forms of environmental credits provided by PP has been reviewed to confirm the same.
Supply chain (scope 3) emissions double claiming	PP, in MR has declared that the emission footprint of the electricity produced as part of the project activity are a part of supply chain (scope 2 emissions) and the project proponent is the buyer or seller of the product which is clearly defined in the “Implementation agreement relating to the utilization of landfill gas at the Linbro park, Marie Louise, Goundkoppies, Ennerdale and Robinson deep landfill sites”/18/ stating that the carbon credit produced belong to the Energy Joburg RF (PTY) Limited.
Sustainable development contributions	Through the implementation of the project activity, the following SDGs have been achieved during the current monitoring period. SDG 13: Tonnes of greenhouse gas emissions avoided.

	13.0: The current project contribution is 227,833 tCO₂e, which is consistent with the emission reduction value reported in the MR/01/ and ER sheet/02/. The total project lifetime contribution value of 1,888,557 tCO₂e /02/ is the total emission reduction value achieved over the project lifetime. SDG 3: Total CH₄ (tonnes) destroyed. 3.9.1: The current project contribution is 8,014.6 tonnes CH₄. The total project lifetime contribution value of 74,943 tonnes CH₄ is the total emission reduction value achieved over the project lifetime. SDG 7: Total LFG (Nm³/h) destroyed and/or utilized. 7.2: The project has contributed to a reduction in greenhouse gas emissions contained in LFG by an average of approximately ~2,426.25 Nm³/h during the current monitoring period and 2,161 Nm³/h over the project lifetime. This gas is utilised for renewable electricity generation. The project contributions to the SDGs provided in the MR are found to be true based on the assessment of the calculation provided and previous monitoring reports. The SDG indicators defined in the registered PD have been consistently applied, monitored, and reported in Section 1.12 of MR/01/, with the additional inclusion of SDG 7.2 to ensure compliance with Section 3.17.1 of VCS Standard Version 4.7. The VVB confirms that the PP adheres to the requirement mentioned in paragraph 3.17.1 of the VCS Standard Version 4.7.
Additional information relevant to the project	No commercially sensitive information is included in the project documents.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Stakeholder identification	VVB has reviewed the EIA/20/ and EMP report/12/ and confirms that the stakeholder identification has been done appropriately. There is no change in stakeholder makeup since validation.
Legal or customary tenure/access rights	The project site is under the ownership of City of Johannesburg/18/ and therefore no conflict in assess rights observed.
Stakeholder diversity and changes over time	As mentioned in the MR, the stakeholder diversity has been identified in the validation and there has been growing interest from academic institutions for the landfill gas project.
Expected changes in well-being	The project activity improved the air quality in the surrounding region compared to baseline scenario
Location of stakeholders	The location of stakeholders are within few kilometers of the landfill sites as evidenced by the EIA /20/, EMP report/12/ and stakeholder consultation reports/19/
Location of resources	Not applicable.

4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion			
Ongoing consultation	VVB has reviewed the environmental monitoring committee meetings/19/ reports and confirms that the ongoing communication are in place			
Date(s) of stakeholder consultation	VVB has reviewed the environmental monitoring committee meetings/19/ reports and confirms that the ongoing communication meeting were conducted on 22-November-2024, 21-February-2025, 23-May-2025, 22-August-2025 respectively.			
	Additional site visits by interested and affected parties.			
	Pickit-up/IFC solid waste sector	Tuesday, 28 January 2025 12:00-13:30	Robinson Deep, Turfontein	No compliant received from visitors

	SABIA	Thursday, 4 September 2025 12:00 – 13:00	Robinson Deep, Turfontein	No compliant received from visitors
	GIZ	Tuesday, 16 September 2025 09:00 – 10:00	Robinson Deep, Turfontein	No compliant received from visitors
	Buffalo City Municipality – General Manager	Tuesday, 29 September 2025 10:00 – 11:00	Robinson Deep, Turfontein	No compliant received from visitors
	City Of Johannesburg delegates	Wednesday, 01 October 2025 15:00 – 16:00	Robinson Deep, Turfontein	No compliant received from visitors
	Nersa Delegates	Thursday, 30 October 2025	Robinson Deep, Turfontein	No compliant received from visitors
Communication of monitored results	VVB has reviewed the environmental monitoring committee meetings/19/ reports and confirms that the monitored results are communicated in every meeting.			
Consultation records	VVB has reviewed the attendance registers and minutes of meetings/19/ and confirms that stakeholder consultation records are in place.			
Stakeholder input	VVB has reviewed the stakeholder inputs/19/ and confirms that no major grievance has been received.			

4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	PP has undertaken the public participation process (PPP) as per NEMA EIA regulations and documented the outcomes in the EIA /20/ and

	EMP report/12/ which is reviewed by VVB to confirm that the project activity has met the FPIC method requirements.
Outcome of FPIC discussion	The outcome of the FPIC is documented in the EMP report which is reviewed by VVB/12/ to confirm the same.

4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Grievance received and steps taken to resolve the grievance including the outcomes of the resolution	VVB through site visit inspection, inspection and review of the grievance register/17/ confirms that no grievance was raised during the monitoring period.
Grievance redress procedure	VVB through site visit inspection, inspection and review of the grievance register /17/ confirms that no grievance was raised during the monitoring period.

4.2.5 Public Comments

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
22-November-2024	ENERGY Joburg sponsored the school with an assembly area shelter	VVB has cross checked the public stakeholder comments /19/ received as well as the evidence of the school shelter built /19-5/. The verification team deems the action appropriate.

21-February-2025 Comments were limited to the type of community projects ENERGY Joburg sponsored and this was outlined as underprivileged schools and did not include yellow plant.	addressed	VVB has cross-checked the public stakeholder comments /19/ received during the monitoring period and confirms that all the comments were addressed appropriately.
23- May-2025 No comments received during the meeting.	None	VVB has cross-checked the public stakeholder comments /19/ received during the monitoring period and confirms that comments were received during this consultation event.
22-August-2025 Members of the committee requested a site visit to see the processes and plant.	None	VVB has cross-checked the public stakeholder comments /19/ received during the monitoring period and confirms that no comments were received during this consultation event.

4.2.6 Risks to Local Stakeholders and the Environment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Natural and human-induced risks to stakeholders' wellbeing	VVB reviewed engineering design documents, environmental assessments, and conducted site observations. Verified that plant infrastructure and operational controls mitigate gas and noise risks /22/. No unaddressed risks to stakeholder wellbeing identified.
Risks to stakeholder participation	VVB reviewed stakeholder consultation records and verified that consultations were conducted by an independent, government-registered practitioner /19/. Participation processes were transparent and accessible. No risk to stakeholder participation identified.
Working conditions	VVB reviewed Employment Equity Policy /11/, Occupational Health and Safety Act compliance documents, training logs, and conducted worker interviews. Evidence confirms implementation of employment and safety

	legislation. Identified risks (“health and safety” and “employment equity”) are adequately mitigated.
Safety of women and girls	VVB verified through site visits, operational boundary assessments, and incident logs that the project is located on an existing landfill site operating for over 40 years, with restricted access and municipal oversight. No safety risks to women and girls identified.
Safety of minority and marginalized groups, including children	VVB conducted site inspections to confirm restricted-access operations on the long-established landfill site. No exposure risks or access by marginalized groups or children observed. No related risks identified.
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials)	VVB reviewed plant design specifications, noise-monitoring data, EIA report /20/, and environmental management documentation. Noise levels confirmed below the 64 dB threshold at 10 m /22/. Project reduces odor and results in a net environmental benefit. Mitigation measures found effective and in compliance.

4.2.7 Respect for Human Rights and Equity

4.2.7.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination and sexual harassment	VVB during site visits and interviews confirms that the copies of employment equity policy/11/ has been posted at every site to reinforce the staff about their rights.
Management experience	The management of this project has been actively involved in landfill gas utilization projects for the past 15 years as the project start date is 27- May-2011 /13/.
Gender equity in labor and work	VVB during site visit and interviews confirms that the copies of employment equity policy/11/ has been posted at every site to reinforce the staff about their rights.
Human trafficking, forced labor, and child labor	VVB during site visit and interviews confirms that the copies of employment equity policy /11/ has been posted at every site to reinforce the staff about their rights.

4.2.7.2 Human Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Human rights	VVB, through site visits and interviews confirms that the project activity complies with the South Africa constitution and the laws of the country such as Employment equity act and occupational health and safety act /11/.

4.2.7.3 Indigenous Peoples and Cultural Heritage

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Preservation and protection of cultural heritage	The project activity is located on an existing landfill site that has been active over 40 years which was established before the start date of the project activity. VVB through interviews and site inspections observed that the project activity does not affect cultural heritage.

4.2.7.4 Property Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Disputes over rights to territories and resources	The ownership of the project activity belongs to the City of Johannesburg as per the Implementation agreement/18/. It has been observed that there is no dispute regarding property rights, usage or resources.
Respect for property rights	Not applicable

4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Summary of the benefit sharing plan	Not applicable
Benefit sharing during the monitoring period	Not applicable

4.2.8 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	The project activity is located on existing landfill site established before the project activity was implemented. The same has been confirmed by the verification team during onsite inspection and interviews with plant management. Therefore, the verification team concludes that the project causes no negative impact on the surrounding biodiversity and ecosystem, rather improve environmental condition through the reduction of CO ₂ emissions.
Soil degradation and soil erosion	The project activity is located on existing landfill site established before the project activity was implemented. The same has been confirmed by the verification team during onsite inspection and interviews with plant management. Therefore, the verification team concludes that the project causes no negative impact
Water consumption and stress	The project activity is located on existing landfill site that has been active over 40 years which was established before the start date of the project activity. Moreover, water is not used in the project process

4.2.8.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Species or habitat	The project activity is located on existing landfill site that has been active over 40 years which was established before the start date of the project activity. Based on the review of the EIA report /20/, it has been observed that there is no noticeable impact on rare, threatened, and endangered species.
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4.2.8.2 Introduction of Species

N/A

4.2.8.3 Ecosystem conversion

N/A

4.3 Accuracy of Reduction and Removal Calculations

Baseline Emissions

The baseline emissions are determined according to equation (1) of the applied methodology:

$$BE_y = BE_{CH,y} + BE_{EC,y} + BE_{HG,y} + BE_{NG,y} \quad (\text{Equation 1 of ACM0001, v19})$$

Where

$BE_{CH,y}$ Baseline emissions of methane from the SWDS 201,967 tCO₂e

$BE_{EC,y}$ baseline emissions associated with electricity generation 26,137 tCO₂e

$BE_{HG,y}$ there was no use of methane for heating: Value is 0.

$BE_{NG,y}$ there was no upgrading and use of methane for natural gas: Value is 0.

$$BE_y = 228,104 \text{ tCO}_2\text{e}$$

Baseline emissions of methane from the SWDS ($BE_{CH_4,y}$)

Baseline emissions of methane from the SWDS are determined according to equation (2) of the applied methodology:

$$BE_{CH_4} = \left((1 - OX_{toplayer}) \times F_{CH_4,PJ,y} - F_{CH,BL,y} \right) \times GWP_{CH_4} \quad (\text{Equation 2 of ACM0001, v19})$$

Where:

$OX_{toplayer}$ Fraction of methane in the LFG that would be oxidized in the top layer of the SWDS in the baseline (dimensionless), value 0.1

$F_{CH_4,PJ,y}$ Amount of methane in the LFG which is flared and/or used in the project activity in year y (t CH₄/yr). Values used 8,014.6 t CH₄ for the monitoring period.

$F_{CH_4,BL,y}$ Amount of methane in the LFG that would be flared in the baseline in year y (t CH₄/yr), the baseline value is 0.

GWP_{CH_4} Global warming potential of CH₄ (t CO_{2e}/t CH₄) value used 28 (as per ACM0001 which states that the “Default value of 28 from IPCC Fifth Assessment Report (AR5) shall be updated according to any future COP/MOP decisions”).

$F_{CH_4,PJ,y}$ is determined as the sum of the quantities of methane flared and used in power plant(s), boiler(s), air heater(s), glass melting furnace(s), kiln(s) and natural gas distribution, as follows:

$$F_{CH_4,PJ,y} = F_{CH_4,flared,y} + F_{CH_4,EL,y} + F_{CH_4,HG,y} + F_{CH_4,NG,y}$$

(Equation 3 of ACM0001, v19)

Where:

$F_{CH_4,PJ,y}$ Amount of methane in the LFG which is flared and/or used in the project activity in year y (t CH₄/yr), value 8,014.6.

$F_{CH_4,flared,y}$ Amount of methane in the LFG which is destroyed by flaring in year y (t CH₄/yr)

$F_{CH_4,EL,y}$ Amount of methane in the LFG which is used for electricity generation in year y (t CH₄/yr)

$F_{CH_4,HG,y}$ Amount of methane in the LFG which is used for heat generation in year y (t CH₄/yr) this value is 0 as no methane was used for heating.

$F_{CH_4,NG,y}$ Amount of methane in the LFG which is sent to the natural gas distribution network and/or dedicated pipeline and/or to the trucks in year y (t CH₄/yr) this value is 0 as no methane was upgraded and supplied as natural gas.

$F_{CH_4,flared,y}$ in the workbooks take the flow to the flare per minute and adjusts it for the methane concentration and then multiplies it by the density for methane. This is then adjusted for the actual mass for that time interval to provide an actual unit and not a flow rate.

$$F_{CH_4,flared,y} = F_{CH_4,sent_{flare,y}} - \frac{PE_{flare,y}}{GWP_{CH_4}}$$

(Equation 4 of ACM0001, v19)

Where:

$F_{CH_4,flared,y}$ = Amount of methane in the LFG which is destroyed by flaring in year y (t CH₄/yr)

$F_{CH4,sent_flare,y}$	=	Amount of methane in the LFG which is sent to the flare in year y (t CH ₄ /yr)
$PE_{flare,y}$	=	Project emissions from flaring of the residual gas stream in year y (t CO ₂ e/yr)
GWP_{CH4}	=	Global warming potential of CH ₄ (t CO ₂ e/t CH ₄)

$F_{CH4,EL,y}$ in the workbooks take the flow to the generators per minute and adjusts it for the methane concentration and then multiplies it by the density for methane. This is then adjusted for the actual mass for that time interval to provide an actual unit and not a flow rate.

$F_{CH4,EL,y}$ is determined using the “Tool to determine the mass flow of a greenhouse gas in a gaseous stream” and monitoring the working hours of the power plant(s), so that no emission reduction is claimed for methane destruction during non-working hours. This is taken into account by monitoring the hours that the equipment utilizing the LFG is operating in year y (Opj,h,y) and is applied to determine the parameter of $F_{CH4,EL,y}=F_{i,t} \times Opj,h,y$.

Option F of the “Tool to determine the mass flow of a greenhouse gas in a gaseous stream” (Version 03.0.0)

The mass flow of greenhouse gas i ($F_{i,t}$) is determined using the equations below as stipulated in the “Tool to determine the mass flow of a greenhouse gas in a gaseous stream” (Version 03.0.0):

$$F_{i,t} = V_{t,wb,n} \times v_{i,t,wb} \times \rho_{i,n} \quad \text{Mass Flow Tool Equation (9)}$$

$$\rho_{i,n} = \frac{P_n \times MM_i}{R_u \times T_n} \quad \text{Mass Flow Tool Equation (10)}$$

$$V_{t,wb,n} = M_{t,wb} / \rho_{t,wb,n} \quad \text{Mass Flow Tool Equation (15)}$$

$$\rho_{t,wb,n} = \frac{P_n \times MM_{t,wb}}{R_u \times T_n} \quad \text{Mass Flow Tool Equation (16)}$$

Where:

$F_{i,t}$ Mass flow of greenhouse gas i in the gaseous stream in time interval t (kg gas/h)

$V_{t,wb,n}$ Volumetric flow of the gaseous stream in the time interval t at normal conditions on a wet basis (m³ wet gas/h)

$V_{i,t,wb}$ Volumetric fraction of greenhouse gas i in the gaseous stream in a time interval t on a wet basis (m^3 gas i/m^3 wet gas)

$\rho_{i,n}$ Density of greenhouse gas i in the gaseous stream normal conditions (kg gas/ m^3 wet gas i)

P_n Absolute pressure of the gaseous stream in time interval t at normal conditions (Pa)

MM_i Molecular mass of greenhouse gas i ($kg/kmol$)

R_u Universal ideal gases constant ($Pa \cdot m^3/kmol \cdot K$)

T_n Temperature of the gaseous stream at normal conditions (K)

$M_{t,wb}$ Mass flow of the gaseous stream in time interval t on wet basis (kg/h)

$\rho_{t,wb,n}$ Density of greenhouse gas i in the gaseous stream in interval t on a wet basis at normal conditions (kg wet gas/ m^3 wet gas)

$MM_{t,wb}$ Molecular mass of greenhouse gas i in time in time interval t on a wet basis ($kg/kmol$ wet)

The molecular mass of the gaseous stream ($MM_{t,wb}$) is determined according to equation (17) below, as stipulated in the “Tool to determine the mass flow of a greenhouse gas in a gaseous stream” (Version 03.0.0):

$$MM_{t,wb} = \sum_k (V_{k,t,wb} \times MM_k) \quad \text{Mass Flow Tool Equation (17)}$$

Where:

$MM_{t,wb}$ Molecular mass of gaseous stream in time interval t on a wet basis (kg wet gas/ $kmol$ wet gas)

$V_{k,t,wb}$ Volumetric fraction of gas k in the gaseous stream in time interval t on a wet basis (m^3 gas k/ m^3 wet gas)

MM_k Molecular mass of gas k ($kg/kmol$)

k All gases contained in the gaseous stream (e.g. N_2 , CO_2 , O_2 , CO , H_2 , CH_4 , N_2O , NO , NO_2 , SO_2 , SF_6 and PFCs and H_2O in vapor phase).

The determination of the molecular mass of the gaseous stream ($MM_{t,wb}$) requires measuring the volumetric fraction of all gases (k) in the gaseous stream. However, as a simplification, the volumetric fraction of only the gases k that are greenhouse gases and are considered in the emission reduction calculation in the underlying methodology must be monitored and the difference to 100% may be considered as pure nitrogen. As per ACM0001 the only GHG to be considered is methane, therefore only the volumetric fraction of the methane will be monitored.

The baseline emissions associated with electricity generation in year y ($BE_{EC,y}$) are calculated using the “Tool to calculate baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, Version 3.0”.

$BE_{EC,y} = \sum_k EC_{BL,k,y} \times EF_{EF,k,y} \times (1 + TDL_{k,y})$ (Equation 2 of Electricity Consumption and Generation Tool, v3). This case we are doing the calculation for electricity generation:

Where:

$BE_{EC,y}$	Baseline emissions from electricity consumption in year y (t CO ₂ / yr)
$EC_{BL,k,y}$	Quantity of electricity that would be consumed by the baseline electricity consumer k in year y (MWh/yr). $EC_{BL,k,y}$ is equivalent to $EG_{PJ,y}$. In this case electricity generated is 26,137MWh.
$EF_{EF,k,y}$	Emission factor for electricity generation for source k in year y (t CO ₂ /MWh) value 0.9647 t/MWh.
$TDL_{k,y}$	Average technical transmission and distribution losses for providing electricity to source j in year y is 11.94 in 2024 and 12.34% for 2025
k	Sources of electricity consumption in the baseline

Project Emissions

The project emissions are calculated in accordance with equation (22) of the applied methodology:

$$PE_y = PE_{EC,y} + PE_{FC,y} + PE_{DY,y} \quad (\text{Equation 22 of ACM0001, v19})$$

Where:

PE_y = Project emissions in year y (tCO₂/y)

$PE_{EC,y}$ = Emissions from consumption of electricity due to the project activity in year y (tCO₂/y); value from below calculation 260 tCO₂

$PE_{FC,y}$ = Emissions from consumption of fossil fuels due to the project activity, for purpose other than electricity generation, year y (tCO₂/y); value from below calculation 2 is 10

$PE_{DY,y}$ = Emissions from distribution of compressed/liquefied LFG using trucks in year y (tCO₂/y); this is 0 as no distribution of the gas took place in this monitoring period.

$$PE_y = 270 \text{ tCO}_2\text{e}$$

Project emissions from electricity consumption:

PEEC,y is calculated according to the “Tool to calculate baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, Version 3.0” using the following equation:

$$PE_{EC,y} = \sum_j EC_{PJ,j,y} \times EF_{EF,j,y} \times (1 + TDL_{j,y})$$

(Equation 1 of Electricity Consumption Tool and Generation, v3.0)

Where:

$EF_{EF,j,y}$ =Emission Factor for electricity consumed value applied is 0.9647 tCO₂/MWh for all periods

$EC_{PJ,j,y}$ = Total electricity consumed 202 MWh consumed in 2024 and 2025.

$TDL_{j,y}$ = Transmission and Distribution losses; 11.94 in 2024 and 2025.

$$PE_{EC,y} = 259,57 \text{ tCO}_2\text{e}$$

All of the above calculations are contained in the consolidated workbook titled “Consolidated ER Sheet 01-November-2024 to 31-October-2025 V1” under the Project Emissions sheet

Project emissions from fossil fuel consumption:

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

Where

$PE_{FC,j,y}$ CO₂ emissions from fossil fuel combustion in process j during year

$FC_{i,j,y}$ Quantity of fuel type i combusted in process j during year y [Mass or volume unit/yr] is 3.05 t;

$COEF_{i,y}$ CO₂ emission coefficient of fuel type i in year y [tCO₂/mass or volume unit] is 3.24/t;

$$PE_{FC,j,y} = 10 \text{ tCO}_2\text{e}$$

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

Where

$COEF_{i,y}$ CO₂ emission coefficient of fuel type i in year y [tCO₂/mass or volume unit];

$NCV_{i,y}$ Weighted average net calorific value of the fuel type i year y [GJ/mass or volume unit] is 0.0433 TJ/t;

$EF_{j,y}$ Weighted average CO₂ emission factor of fuel type i in year y [tCO₂/TJ]
74.8tCO₂/TJ;

i Fuel types combusted in process j during year y is standard diesel.

The verification team has determined whether the registered monitoring plan in the VCS PD /03/ has been properly implemented and followed by the PP and whether all parameters fixed ex-ante for emission reduction calculation are as per the registered PD /03/. The verification team's assessment of each data and parameter fixed ex-ante is provided below:

Parameter	Description	Value	Unit	Source	Assessment
GWP_{CH_4}	Global Warming Potential of methane	28	tCO ₂ e/ tCH ₄	IPCC (Fifth Assessment Report)	The parameter is used for the global warming potential of methane and used for calculation of emission reductions. The parameter value is based on the GWP available in the IPCC fifth Assessment report/B03/. The value is consistent with registered VCS PD/03/ and fixed ex-ante for the project activity.
EF_{EL} or $EF_{grid, CM, y}$	Combined margin emission factor for the grid in year y	0.9647	tCO ₂ e/ MWh	Calculated using TOOL07 "Tool to calculate the emission factor for an electricity system" version 07.0 Eskom report 2023	The parameter is used for emission reduction calculation of the project activity. The emission factor is fixed ex-ante. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
$\phi_{default}$	Default value for the model correction factor to account for model	0.75	-	Methodological tool: Emissions from solid waste disposal sites, Version 08.0	The parameter is used for calculation of the baseline emissions. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
OX	Oxidation factor	0.1	-	Methodological tool:	The parameter is used for calculation of the baseline

	(reflecting the amount of methane from SWDS that is oxidized in the soil or other material covering the waste)			Emissions from solid waste disposal sites, Version 08.0	emissions. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.	
F	Fraction of methane in the SWDS gas (volume fraction)	0.5	-	Methodological tool: Emissions from solid waste disposal sites, Version 08.0	The parameter is used as an input for calculation of the project emissions. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.	
DOC _f	Fraction of degradable organic carbon (DOC) that can decompose	0.5	-	IPCC 2006 Guidelines for National Greenhouse Gas Inventories	The parameter is used as an input for calculation of the baseline emissions. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.	
MCF _{default}	Methane Correction Factor	1.0	-	Methodological tool04: Emissions from solid waste disposal sites, Version 08.0	The parameter is used as an input for calculation of the baseline emissions. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.	
DOC _j	Fraction of degradable organic carbon (by weight) in the waste type j.	Table provided in the MR/01/ and PD/03/	-	Methodological tool04: Emissions from solid waste disposal sites, Version 08.0	The parameter is used as an input for calculation of the baseline emissions. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.	
					Wood and wood products	43

					<table><tr><td>Pulp, paper and cardboard (other than sludge)</td><td>40</td></tr><tr><td>Food, food waste, beverages and tobacco (other than sludge)</td><td>15</td></tr><tr><td>Textiles</td><td>24</td></tr><tr><td>Garden, yard and park waste</td><td>20</td></tr><tr><td>Glass, plastic, metal, other inert waste</td><td>0</td></tr></table>	Pulp, paper and cardboard (other than sludge)	40	Food, food waste, beverages and tobacco (other than sludge)	15	Textiles	24	Garden, yard and park waste	20	Glass, plastic, metal, other inert waste	0																							
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Garden, yard and park waste	20																																					
Glass, plastic, metal, other inert waste	0																																					
k _j	Decay rate for the waste type j	Table provided in the MR/02/ and PD/03/	-	Methodological tool04: Emissions from solid waste disposal sites, Version 08.0	The parameter is used as an input for calculation of the baseline emissions. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity. <table><tr><th colspan="2" rowspan="2">Waste type j</th><th colspan="2">Boreal and Temperate (MAT≤20°C)</th><th colspan="2">Tropical (MAT>20°C)</th></tr><tr><th>Dry (MAP/PET <1)</th><th>Wet (MAP/PET >1)</th><th>Dry (MAP<1000m)</th><th>Wet (MAP >1000mm)</th></tr><tr><td rowspan="2">Slowly degrading</td><td>Pulp, paper, cardboard (other than sludge), textiles</td><td>0.04</td><td>0.06</td><td>0.045</td><td>0.07</td></tr><tr><td>Wood, wood products and straw</td><td>0.02</td><td>0.03</td><td>0.025</td><td>0.035</td></tr><tr><td>Moderately degrading</td><td>Other (non-food) organic putrescible garden and park waste</td><td>0.05</td><td>0.10</td><td>0.065</td><td>0.17</td></tr><tr><td>Rapidly degrading</td><td>Food, food waste, sewage sludge, beverages and tobacco</td><td>0.06</td><td>0.185</td><td>0.085</td><td>0.40</td></tr></table>	Waste type j		Boreal and Temperate (MAT≤20°C)		Tropical (MAT>20°C)		Dry (MAP/PET <1)	Wet (MAP/PET >1)	Dry (MAP<1000m)	Wet (MAP >1000mm)	Slowly degrading	Pulp, paper, cardboard (other than sludge), textiles	0.04	0.06	0.045	0.07	Wood, wood products and straw	0.02	0.03	0.025	0.035	Moderately degrading	Other (non-food) organic putrescible garden and park waste	0.05	0.10	0.065	0.17	Rapidly degrading	Food, food waste, sewage sludge, beverages and tobacco	0.06	0.185	0.085	0.40
Waste type j		Boreal and Temperate (MAT≤20°C)		Tropical (MAT>20°C)																																		
		Dry (MAP/PET <1)	Wet (MAP/PET >1)	Dry (MAP<1000m)	Wet (MAP >1000mm)																																	
Slowly degrading	Pulp, paper, cardboard (other than sludge), textiles	0.04	0.06	0.045	0.07																																	
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Moderately degrading	Other (non-food) organic putrescible garden and park waste	0.05	0.10	0.065	0.17																																	
Rapidly degrading	Food, food waste, sewage sludge, beverages and tobacco	0.06	0.185	0.085	0.40																																	
f _y	Fraction of methane captured at the SWDS and flared, combusted or used in	0	-	Methodological tool04: Emissions from solid waste disposal sites, Version	The parameter is used as an input for calculation of the baseline emissions. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed																																	

	another manner			08.0	ex-ante for the project activity.
W_x	Total amount of organic waste in year x (tons)	Please refer to calculation spreadsheet ¹	Tonnes	Landfill Operator	The parameter is used as an input for calculation of the baseline emissions. The parameter is used to estimate ex-ante emission reductions based on the waste profile. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
$NCV_{i,y}$	Weighted average net calorific value of fuel type i in the year y	0.0433	TJ/t	IPCC default values as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories.	The parameter is used as an input for calculation of the project emissions. The parameter is used in case of fossil fuel consumption (diesel in this case). The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
$EFCO_{2,i,y}$	Weighted average CO ₂ emission factor of fuel type i in the year y	74.8 tCO ₂ /TJ	tCO ₂ /TJ	IPCC default values as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories.	The parameter is used as an input for calculation of the project emissions. The parameter is used in case of fossil fuel consumption (diesel). The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
η_{PJ}	Efficiency of the LFG capture system that will be installed in the project activity	0.5	-	ACM0001 version 19	The parameter is used as an input for calculation of the baseline emissions. Since the technical specifications are not available for the LFG capture system, a default value of 50% is applied for the purposes of ex-ante emissions estimation. The

¹ Ex-ante ER calculation spreadsheet.

					value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
SPEC _{flare}	Manufacturer's flare specifications for temperature, flow rate and maintenance schedule.	Temperature (°C) Min - 700°C Max - 1,200°C Flow rate or heat flux (kg/h or m³/h) Min - 400 m³/h Max - 2,000 m³/h Maintenance schedule (N° of days) The maintenance schedule is not required if Option A (default flare efficiency option specified in the tool titled 'Project emissions from flaring, v4') is selected to determine flare efficiency	Temperature (°C) Flow rate or heat flux (kg/h or m³/h) Maintenance schedule (N° of days)	Manufacturer's flare specifications for temperature, flow rate and maintenance schedule.	The parameter is used as an input for calculation of the baseline emissions. The parameter is based on the manufacturer specifications on the flare. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity. Maintenance schedule is not required as Option A has been selected from the tool Project emissions from flaring, v4.

		of an enclosed flare			
R_u	Universal ideal gases constant	8.314	$\text{Pa.m}^3/\text{kmol.k}$	“Tool to determine the mass flow of a greenhouse gas in a gaseous stream”, Version 03.0	The parameter is used as an input for calculation of the baseline emissions. The parameter is based on the default provided in the tool. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
MM_i	Molecular mass of greenhouse gas i	Methane: 16.04 Nitrogen: 28.01	Kg/kmol	“Tool to determine the mass flow of a greenhouse gas in a gaseous stream”, Version 03.0	The parameter is used as an input for calculation of the baseline emissions. The parameter is based on the default provided in the tool. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
P_n	Total pressure at normal conditions	101,325 Pa	Pa	“Tool to determine the mass flow of a greenhouse gas in a gaseous stream”, Version 03.0	The parameter is used as an input for calculation of the baseline emissions. The parameter is based on the default provided in the tool. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
T_n	Temperature at normal conditions	273.15K	K	“Tool to determine the mass flow of a greenhouse gas in a gaseous stream”, Version 03.0	The parameter is used as an input for calculation of the baseline emissions. The parameter is based on the default provided in the tool. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
$\eta_{\text{flare},m}$	Flare efficiency for the minute m	0.8	-	Methodological Tool “Project emissions from flaring”	The parameter is used as an input for calculation of the baseline emissions. The parameter is based on

				Version 04.0	the default provided in the tool. The value is consistent with registered CDM PDD and VCS PD/03/ and fixed ex-ante for the project activity.
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The values are consistent with the registered VCS PD/03/ and defined fixed ex-ante during crediting period of the project activity. The fixed ex-ante data and parameter have been listed in the monitoring report/01/ and confirmed by the verification team as correct and consistent with that stated in the registered VCS PD/03/. The verification team confirms that the MR/01/ and the ER calculation spreadsheet /02/ have considered the parameters fixed ex-ante correctly.

4.4 Quality of Evidence to Determine Reductions and Removals

CARBON CHECK was able to confirm that the calculations are based on authentic data. The spreadsheets/02/ used to calculate the VCU calculations and all figures were tracked, cross checked with actual reported data from the CEB invoices and found to be consistent.

The quality of supporting evidence submitted to the VVB for verification is adequate and found to be verifiable. The transfer of carbon rights and other supporting documents related to quality and maintenance were checked by the verification team during the remote audit to confirm the authenticity of the documents and to check the correctness of the calculation.

When verifying the reported emission reductions, CARBON CHECK ensured that there was a clear audit trail that contained the evidence and records that validate the stated figures. All source documents that form the basis for assumptions and other information underlying the GHG data were checked by the verification team.

When assessing the audit trails, CARBON CHECK also examined:

1. Whether sufficient evidence was available, both in terms of frequency and in covering the full monitoring period
2. The source and nature of the evidence
3. If comparable information was available from sources other than that used in the monitoring report, CARBON CHECK cross-checked the monitoring report against the other sources to confirm that the stated figures were correct.

CARBON CHECK also assessed that the data collection system met the requirements of the monitoring plan as per the applied methodology.

Proper data management inclusive of data acquisition and aggregation, data management system is being followed for the project activity.

The monitoring personnel at site are well trained and follow reproducible routines. Thus, they are competent to carry out the relevant tasks with sufficient accuracy.

Monitored Parameters

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of PDD):	Management of SWDS (Management of SWDS)
Data Unit	-
Reported Values	Annual
Measuring frequency/Time Interval:	Annual
Reporting frequency:	Annual
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	The waste management license is granted by a governmental department (3rd party). The waste management licenses are valid for the sites in operation/23/, and the license is also valid for the monitoring period.
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, Does the monitoring equipment represent good monitoring practise?	NA
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	NA
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, Does the selected frequency represent good monitoring practise?	NA
Company performing the calibration (internal or external calibration):	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	NA
Is (are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been cross-checked with other available data?	Verification team has compared and checked the waste management licenses/23/ for the landfill sites.

How were the values in the monitoring report verified?	Verification team has verified the waste management licenses/23/ for the landfill sites. The waste management licenses are found to be valid for the sites in operation during the monitoring period and have been delivered by a credible source (Governmental department) Further, information in the monitoring report was found to be consistent with supporting documentation /23/.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The necessary QA/QC procedures for this parameter are in place as provided in monitoring report /01/.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	Full set of data has been provided for the monitoring period.

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of PDD):	Operation of the equipment that consumes the LFG (Op _{j,h})
Data Unit	-
Reported Values	Hours run for each unit at the monitored sites as recorded in monthly returns: Robinson Deep Flare (SN: 0010931-1-1): 8487 h Generator 1587 (SN: 23330448): 6639 h Generator 1588 (SN: 2333044C): 4587 h Generator 1589 (SN: 23330446): 4689 h Marie Louise Flare (SN: 0011104-1-1): 8295 h Generator 1582 (SN: 23240094): 7948 h Goudkoppies Flare (SN: 0012274-1-1): 8315 h Generator 1584 (SN: 23380033): 4694 h Generator 1590 (SN: 2338000D): 5900 h
Measuring frequency/Time Interval:	Continuous monitoring using digital hour meters in the flare PLC and generator controllers. Hours run are further processed using logic conditions (temperature ≥700°C, UV flame detection, and/or electricity generation) during data download and validation

Reporting frequency:	Monthly (documented in monthly workbooks and returns; generator data recorded monthly for production and maintenance purposes)
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	Flare program logic controllers and ComAp generator management units installed on generators. Equipment identification through serial numbers was provided and verified
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, Does the monitoring equipment represent good monitoring practise?	The PDD does not specify accuracy. The use of digital hour meters integrated in PLC and generator management systems is considered consistent with good industry practice
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	Not applicable; digital hour meters do not require periodic calibration Manufacturer specifications and internal QA/QC procedures
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, Does the selected frequency represent good monitoring practise?	Yes; although calibration is not required, monthly reviews and checks for manifest errors or device failure represent good monitoring practice
Company performing the calibration (internal or external calibration):	Not applicable
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Not applicable; functionality is ensured through operational checks
Is (are) calibration(s) valid for the whole reporting period?	Not applicable
If applicable, has the reported data been cross-checked with other available data?	Yes, Verification team has checked the values provided in the monthly raw data as provided in the workbooks for each month/06/. The validity of this is verified by reviewing the calibration certificate of thermocouple/05/and maintenance records of UV sensors/06/ provided.
How were the values in the monitoring report verified?	Verification team has checked the values provided in the monthly raw data as provided in the workbooks for each month/06/. The validity of the thermocouple and UV sensors is verified by reviewing the calibration certificate of thermocouple/05/ and maintenance records of UV sensors/06/ provided.

Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes; data is digitally recorded, processed through defined logic tests, aggregated monthly, and subject to QA/QC procedures including monthly review to detect anomalies or device failure
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA. Full set of data has been provided for the monitoring period.

Monitoring Parameter Requirement	Assessment/ Observation by the VVB			
Data / Parameter: (as in monitoring plan of PDD):	Amount of electricity generated using LFG by the project activity in year y ($EG_{PJ,y}$) = ECBL,k,y			
Data Unit	MWh			
Measuring frequency/Time Interval:	Continuously			
Reporting frequency:	Aggregated monthly and yearly			
Values:	Robinson Deep 12,533.5MWh Marie Louise 5,532.5 MWh Goudkoppies 6,067.4MWh Total 24,133.3MWh			
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is in accordance with the monitoring plan/03/ and the monitoring methodology, ACM0001, version 19/B02/			
Details of monitoring equipment:	Elster A1700 Electricity meter/25/			
		Site 1 (Robinson Deep)	Site 2 (Marie Louise)	Site 3 (Goudkoppies)
	Serial Number	351421105891	351421100020	351441128474
	Accuracy	0.20	0.50	0.50
	Calibration Frequency	10 years in accordance with manufacturer specification	10 years in accordance with manufacturer specification	10 years in accordance with manufacturer specifications and

		ns and communica tion /25/	ns and communica tion /25/	communicati on /25/
	Last calibra tion	01-March- 2016 From previous MP	25-January- 2016 From previous MP	12-June- 2018 (original) 11-June- 2028 Removed for Calibration 18-August- 2022
	Calibra tion valid till	28- February- 2026	24-January- 2026	17-August- 2032
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, Does the monitoring equipment represent good monitoring practise?	The registered PD provides an accuracy class of 0.5 and the installed meters are of accuracy class 0.5 (for Marie Louise and Goudkoppies) and 0.2 (for Robinson Deep).			
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	10 years. Calibration frequency is not provided in the registered PD/03/, the calibration frequency is in accordance with the OEM specification, which guarantees the units for a period of 10 years which is in line with SANAS guidelines /B04-4/.			
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, Does the selected frequency represent good monitoring practise?	The calibration interval is not provided in the PD/03/, however the frequency provided is in accordance with the SANAS guidelines/B04-4/.			
Company performing the calibration (internal or external calibration):	External Calibration by Honeywell/05/			
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes, the calibration confirmed the proper functioning of the monitoring equipment/05/.			
Is (are) calibration(s) valid for the whole reporting period?	Yes, the calibration is valid for the whole reporting period/05/.			
If applicable, has the reported data been cross-checked with other available data?	The reported data in the ER sheet/02/ has been cross-checked with generation data from sales of electricity /08/.			

How were the values in the monitoring report verified?	The values were verified with the ER sheet/02/ and cross-checked with generation data from electricity sales data /08/.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The necessary QA/QC procedures for this parameter are in place as provided in monitoring report /01/.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA. Full set of data has been provided for the monitoring period.

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of PDD):	Average technical transmission and distribution losses for providing electricity (TDL _y)
Data Unit	%
Measuring frequency/Time Interval:	Annual
Reporting frequency:	Annual
Values:	Insert TDL from 2024 and 2025 report 2024 11.94% 2025 12.34%
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is in accordance with the monitoring plan/03/ and the monitoring methodology, ACM0001, version 19/B02/
Details of monitoring equipment:	NA
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, Does the monitoring equipment represent good monitoring practise?	NA
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	NA

Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, Does the selected frequency represent good monitoring practise?	NA
Company performing the calibration (internal or external calibration):	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	NA
Is (are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been cross-checked with other available data?	The reported data in the ER sheet/02/ has been cross-checked with Eskom Annual Reports/24/.
How were the values in the monitoring report verified?	The reported data in the ER sheet/02/ has been cross-checked with Eskom Annual Reports/24/.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The necessary QA/QC procedures for this parameter are in place as provided in monitoring report /01/. As per data/ parameter table 3 of CDM Tool 05 version 03.0, PP can choose one among the 3 options provided. PP has chosen option 1 "Use annual average value based on the most recent data available within the host country;" and monitoring frequency for the parameter is given as "Annually. In the absence of data from the relevant year, most recent figures should be used, but not older than 5 years." Also, In the registered PD, the source of data for the parameter TDL_y is provided as Eskom annual report and as measurement method, it is also mentioned that the parameter is "monitored annually. In the absence of data from the relevant year, most recent figures should be used, not older than 5 years." Since the default values are not used, use of same TDL_y value for baseline and project emissions is applicable. For the monitoring period, TDL values from year 2024 and 2025 report of ESKOM taken. Therefore, the provided source and the year of data selection is deemed to be acceptable to VVB.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA. Full set of data has been provided for the monitoring period.

Monitoring Parameter Requirement	Assessment/ Observation by the VVB																				
Data / Parameter: (as in monitoring plan of PD):	Temperature in the exhaust gas of the enclosed flare in minute m (TEG _m)																				
Data Unit	°C																				
Reported Values	Average for Robinson Deep T _{flare} = 961.71 °C Average for Goudkoppies T _{flare} = 752.01 °C Average for Marie Louise T _{flare} = 923.97 °C																				
Measuring frequency/Time Interval:	Continuously																				
Reporting frequency:	Continuously																				
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes																				
Details of monitoring equipment:	Make-WIKA N-Type Thermocouple/08-4/<table><tr><td></td><td>Site 1 (Robinson Deep)</td><td>Site 2 (Marie Louise)</td><td>Site 3 (Goudkoppies)</td></tr><tr><td>Serial Number</td><td>NA</td><td>NA</td><td>NA</td></tr><tr><td>Equipment Tag NO/ Part Number.</td><td>T1TECNSX60</td><td>T1TECNSX60</td><td>T1TECNSX60</td></tr><tr><td>Accuracy</td><td>+0.75% (333 °C-1200 °C)</td><td>+0.75% (333 °C-1200 °C)</td><td>+0.75% (333 °C-1200 °C)</td></tr><tr><td>Temperature Range</td><td>-200°C to +1300°C</td><td>-200°C to +1300°C</td><td>-200°C to +1300°C</td></tr></table> It was confirmed through onsite visit that it is used to determine operational checks and determine the values for the Flare temperature parameter. A second thermocouple (Top thermocouple) higher up in the flare exhaust stack is used as a check on the combustion temperature.		Site 1 (Robinson Deep)	Site 2 (Marie Louise)	Site 3 (Goudkoppies)	Serial Number	NA	NA	NA	Equipment Tag NO/ Part Number.	T1TECNSX60	T1TECNSX60	T1TECNSX60	Accuracy	+0.75% (333 °C-1200 °C)	+0.75% (333 °C-1200 °C)	+0.75% (333 °C-1200 °C)	Temperature Range	-200°C to +1300°C	-200°C to +1300°C	-200°C to +1300°C
	Site 1 (Robinson Deep)	Site 2 (Marie Louise)	Site 3 (Goudkoppies)																		
Serial Number	NA	NA	NA																		
Equipment Tag NO/ Part Number.	T1TECNSX60	T1TECNSX60	T1TECNSX60																		
Accuracy	+0.75% (333 °C-1200 °C)	+0.75% (333 °C-1200 °C)	+0.75% (333 °C-1200 °C)																		
Temperature Range	-200°C to +1300°C	-200°C to +1300°C	-200°C to +1300°C																		
Is accuracy of the monitoring equipment as stated in the PD? If the PDD does not specify the accuracy of the monitoring equipment, Does the monitoring equipment represent good monitoring practise?	The accuracy of the monitoring equipment is +0.75% for the 3 sites and the full scale as per manufacturer specifications/25/. This represents a good monitoring practise.																				
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	Calibration frequency (Functionality checks) is on an annual basis. Calibration frequency meets the requirements of manufacturer specifications/25/ and the registered PD/03/.																				

Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, Does the selected frequency represent good monitoring practise?	Yes, the calibration interval is in line with the monitoring plan of the PD/03/.
Company performing the calibration (internal or external calibration):	Internal functionality checks are done using a portable temperature probe and monitor.
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Marie Louise – T/C Tests • 29-October-2024 • 06-February-2025 • 15-May-2025 • 17-September-2025 Goudkoppies – T/C Tests • 30-August - 2024 • 27-November-2024 • 17-March-2025 • 02-July-2025 • 02-October-2025 Robinson Deep – T/C Tests • 14-October-2024 • 20-January-2025 • 25-April-2025 • 15-July-2025 • 16-October-2025
Is (are) calibration(s) valid for the whole reporting period?	Yes
If applicable, has the reported data been cross-checked with other available data?	The reported data has been compared with functionality check sheets /06/ and confirmed during the on-site visit
How were the values in the monitoring report verified?	The values in the monitoring report/01/ were verified and compared with the continuous and monthly data provided in the ER sheet /02/.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The necessary QA/QC procedures for this parameter are in place as provided in PD /03/.

In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA. Full set of data has been provided for the monitoring period.
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Monitoring Parameter Requirement	Assessment/ Observation by the VVB			
Data / Parameter: (as in monitoring plan of PD):	Quantity of electricity consumed by the project electricity consumption source in year y (EC_{PJ,y})			
Data Unit	MWh/y			
Measuring frequency/Time Interval:	Continuous			
Reporting frequency	Annually			
reported Values	Robinson Deep 224.22 MWh Goudkoppies 0 MWh Marie Louise 15.44 MWh Total 239.66 MWh The VVB has assessed the justification provided by the Project Proponent (PP) for reporting zero electricity consumption for parameter EC_{PJ,y} at the Goudkoppies site. The PP explained that the site operates without a dedicated external grid supply and relies on self-generated electricity, with the export connection also used for limited start-up and restart purposes. Electricity use is recorded through a net metering system, where any internal consumption is netted off against exports within the same period, resulting in a net zero value.			
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Electricity meter			
Details of monitoring equipment:		Site 1 (Robinson Deep)	Site 2 (Marie Louise)	Site 3 (Goudkoppies)
	Serial Number/ Part No	CBI- EC330CM	DEM024SJ	351441128474
	Accuracy	class 1	class B	0.50
	Calibration Frequency	NA	NA	10 years

	Calibration valid from Calibration not required Solid state instrument Calibration not required Solid state instrument 18-August-2022 to 17-August-2032
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, Does the monitoring equipment represent good monitoring practise?	The accuracies of the electricity meters are class 1, class B and 0.50 for the sites/01//02/. This represents a good monitoring practise.
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	10 years
Is the calibration interval in line with the monitoring plan of the PD? If the PDD does not specify the frequency of calibration, Does the selected frequency represent good monitoring practise?	There is no calibration frequency noted as it is not required as they are tamper proof and self checking. Yes regarding the meter installed at Goudkoppies it is in the range
Company performing the calibration (internal or external calibration):	Honeywell
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes
Is (are) calibration(s) valid for the whole reporting period?	Yes
If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross checked with the electricity invoices /08/.
How were the values in the monitoring report verified?	The reported data has been cross checked with the electricity invoices /08/.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The necessary QA/QC procedures for this parameter are in place as provided in the registered PD /03/.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA.

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of PD):	Quantity of fuel type i combusted in process j during the year y ($FC_{i,j,y}$)
Data Unit	Mass or volume unit per year (e.g. ton/yr or m3/yr)
Measuring frequency/Time Interval:	Continuously
Reporting frequency	Continuously
reported Values	Robinson Deep 1,110.23 Lt Marie Louise 1,050.00 Lt Goudkoppies 1,470.00 Lt Total 3,630.23 Lt Density used 0.84 kg/Lt/B04-3/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is in accordance with the monitoring plan/03/ and monitoring methodology/B02/.
Details of monitoring equipment:	The monitoring is being done by ruler gauges in the Volvo 105I (Diesel Tank level indicator)/07/ at Robinson Deep and Goudkoppies site and using Cummins 175I (Diesel Tank level indicator) at Marie Louise site. Robinson Deep • Type: Volvo 105 L (Diesel Tank Level Indicator) • Serial No.: FE3095S • Validity: ○ 23-May-2023 to 23-May-2024 ○ 14-May-2024 to 13-May-2025 ○ 13-May-2025 to 13-May-2026 Marie Louise • Type: Volvo 105 L (Diesel Tank Level Indicator) • Serial No.: FE0686S • Validity: ○ 23-May-2023 to 23-May-2024 ○ 14-May-2024 to 14-May-2025 ○ 13-May-2025 to 13-May-2026 Goudkoppies • Type: Cummins 175 L (Diesel Tank Level Indicator) • Serial No.: AK16080689-A

	Validity: 23-May-2023 to 23-May-2024 14-May-2024 to 14-May-2025 13-May-2025 to 13-May-2026
Is accuracy of the monitoring equipment as stated in the PD? If the PDD does not specify the accuracy of the monitoring equipment, Does the monitoring equipment represent good monitoring practise?	The accuracy for the ruler gauge is +-3.0 litre /25.The accuracy of the instruments is in accordance with the registered PD/03/.
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	Annual. Goukoppies: Marie Louise:
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, Does the selected frequency represent good monitoring practise?	Calibration interval is annual as per the PD/03/. The calibration interval is determined in accordance with the manufacturer specifications/25/.
Company performing the calibration (internal or external calibration):	Calibrate@pjb (External)
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes.
Is (are) calibration(s) valid for the whole reporting period?	Yes
If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross-checked with the fuel purchase receipts/07/.
How were the values in the monitoring report verified?	The values reported in the monitoring report were verified by cross-checking the recorded fuel consumption /07/volumes against the corresponding volume measurement records and fuel purchase receipts. This verification confirms that the reported data is consistent with the underlying source documents and aligns with the monitoring plan requirements.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place.

In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA. Full set of data has been provided for the monitoring period.
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Monitoring Parameter Requirement	Assessment/ Observation by the VVB			
Data / Parameter: (as in monitoring plan of PD):	Volumetric fraction of greenhouse gas i in a time interval t on a wet basis ($V_{i,t,wb}$)			
Data Unit	m ³ gas i/m ³ wet gas			
Measuring frequency/Time Interval:	Measurements are logged once every minute			
Reporting frequency:/	Measurements are logged once every minute			
Values for CH ₄	Average for Robinson Deep 54.0% Average for Marie Louise 55.0% Average for Goudkoppies 56.6% Average 55.19 %			
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes			
Details of monitoring equipment:		Site 1 (Robinson Deep)	Site 2 (Marie Louise)	Site 3 (Goudkoppies)
	Name	Edinburgh Instruments-Guardian NG Infrared Gas Monitor	Edinburgh Instruments-Guardian NG Infrared Gas Monitor	Edinburgh Instruments-Guardian NG Infrared Gas Monitor
	Serial Number	1. 27926 2. 27926 3. 28695	1. 17269 2. 21824	1. 25482 2. 27927 3. 21825 4. 10733 5. 27187 6. 200950
	Accuracy	< 2%	< 2%	< 2%
	Calibration Frequency	Yearly	Yearly	Yearly
	Installed date	1) 09-May-2023 2) 04-December-2024 3) 26-March-2025	1. 04-October-2022 2. 13-January-2025	1) 08-May-2024 2) 04-December-2024 3) 07-January-2025 4) 18-February-2025 5) 29-April-2025

			6) 29-July-2025
	Despite the OEM calibration frequency being annual, the PP conducts weekly calibration of the units based on operational hours, and they have provided complete functionality test data for the entire monitoring period (/04/).		
Is accuracy of the monitoring equipment as stated in the PD? If the PDD does not specify the accuracy of the monitoring equipment, Does the monitoring equipment represent good monitoring practise?	The accuracy of the gas analyser has been provided for each site and each analyser/25/. This represents a good monitoring practise.		
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	Yearly. Calibration frequency is 12 months as per manufacturer specifications for Edinburgh Instruments-Guardian NG Infrared Gas Monitor/25/.		
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, Does the selected frequency represent good monitoring practise?	Yes.		
Company performing the calibration (internal or external calibration):	Calibration Gases and Equipment South Africa The Span gas used for these calibrations has been calibrated according to ISO/IEC 17025:2005 standards. For Robison Deep site: - Span Gas Traceability Cert./Can. 541911 Valid from 01-April-2024 to 30-April-2025 - Span Gas Traceability Cert./Can. 623374 Valid from 01-January-2025 to 31-January-2026 For Marie Louise site: - Span Gas Traceability Cert. 541824 Valid from 01-April-2024 to 30-April-2025 - Span Gas Traceability Cert. 687501 Valid from 01-May-2025 to 31-August-2026 For Goudkoppies site: - Span Gas Traceability Cert. 541918 Valid from 01-April-2024 to 30-April-2025 Span Gas Traceability Cert. 687625 Valid from 01-May-2025 to 31-August-2026		
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes. Calibration report for working Gas Analyser is available /05/.		
Is (are) calibration(s) valid for the whole reporting period?	Yes		

If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross checked with the raw data /05/ at the site during OSV.
How were the values in the monitoring report verified?	The reported data has been cross checked with the raw data /05/ at the site during OSV.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The necessary QA/QC procedures for this parameter are in place as provided in monitoring report /01/ .
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA. Full set of data has been provided for the monitoring period.

Monitoring Parameter Requirement	Assessment/ Observation by the VVB			
Data / Parameter: (as in monitoring plan of PDD):	Mass flow of the gaseous stream in time interval t on a wet basis ($M_{t,wb}$)			
Data Unit	Kg/h			
Reported Values	Robinson Deep Average 1,073.2 Kg/h Marie Louise Average 500.8 Kg/h Goudkoppies Average 657.7 Kg/h			
Measuring frequency/Time Interval:	Continuously			
Reporting frequency:	Recorded every minute			
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes			
Details of monitoring equipment:	Make-Thermal mass flow meter (Endress+ Hauser/Proline t-mass 65I) /08/ Total Flow meter			
	Site 1 (Robinson Deep)	Site 2 (Marie Louise)	Site 3 (Goudkop pies)	

	Serial Number	A309FB02000 (10-December-2020 to 09-December-2023)	L5003702000 (05-February-2021 to 04-February-2024)	99047602000 (Valid from 06-October-2022 to 05-October-2025)
	Accuracy	<3%	<3%	<3%
	Calibration Frequency	3 years	3 years	3 years
	Calibration date ²	20/08/2020	19/08/2020	29/07/2022
	Serial Number	99047502000 (Valid from 05-December-2023 to 04-December-2026)	A309FA02000 (Valid from 06-February-2024 to 05-February-2027))	W9004C02000 (Valid from 06-February-2024 to 05-February-2027)
	Accuracy	<3%	<3%	<3%
	Calibration Frequency	3 years	3 years	3 years

² The calibration of the flow meters is valid from the date of installation in accordance with the specifications from the manufacturer/25/.

	Calibration date	18-August-2022	02-January-2024	03-March-2023
	Flare flow meter			
		Site 1 (Robinson Deep)	Site 2 (Marie Louise)	Site 3 (Goudkoppies)
	Serial Number	A309F902000 (Valid from 09-October-2023 to 08-October-2026)	N810370200 (Valid from 27-January-2023 to 26-January-2026)	L5003702000 (Valid from 08-May-2024 to 07-May-2027)
	Accuracy	<3%	<3%	<3%
	Calibration Frequency	3 years	3 years	3 years
	Calibration date	03-March-2023	05-December-2022	E704AF02000: 17-June-2020 L5003702000: 15-April-2024
	Electricity Flow meter			
		Site 1 (Robinson Deep)	Site 2 (Marie Louise)	Site 3 (Goudkoppies)
	Serial Number	N8103802000 (Valid from 09-	9904770200 (Valid from 30-	E2110D02000 (Valid from 02-

		October-2023 to 08-October-2026)	June-2022 to 29-June-2025) Replaced: 27-June-2025 X30C1E020 00 (Valid from 27-June-2025 to 27-June-2028)	May-2024 to 01-May-2027)
	Accuracy	<3%	<3%	<3%
	Calibration Frequency	3 years	3 years	3 years
	Calibration date	15-December-2022	990477020 00: 14-January-2022 (assuming "14/0/2022" was a typo for 14/01/2022) X30C1E020 00: 14-March-2025	E2110D02 000: 02-January-2024
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?		Yes, the accuracy of the monitoring equipment is as stated in the PD/03/.		
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification		3 years. Calibration frequency meets the requirements of manufacturer specifications /25/.		

Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, Does the selected frequency represent good monitoring practise?	Yes.
Company performing the calibration (internal or external calibration):	Endress + Hauser (External) Endress + Hauser is the manufacturer, and the laboratory is accredited to undertake calibration.
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes. Calibration reports for the flow meters are available /05/ .
Is (are) calibration(s) valid for the whole reporting period?	Yes
If applicable, has the reported data been cross-checked with other available data?	Verification team has compared and checked the values provided in ER sheet /02/ with the monthly raw data as provided in the workbooks for each month provided in the ER sheet/02/.
How were the values in the monitoring report verified?	The values for the parameter are monitored continuously and then through the telemetry every 30 minutes data is sent to network server central database.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The necessary QA/QC procedures for this parameter are in place as provided in monitoring report /01/.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA. Full set of data has been provided for the monitoring period.

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of PDD):	Flame detection of flare in the minute m (Flame _m)
Data Unit	Flame on or Flame off
Measuring frequency/Time Interval:	Continuous
Reporting frequency:/	recorded once every minute

Values	Detection of flame recorded as a minute that the flame was on, otherwise recorded as a minute that the flame was off
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and recording frequency is in accordance with the registered PD/03/
Details of monitoring equipment:	Krom Schroder UV Sensor/25/ Robinson Deep - Replacement Dates: 08-March-2024 25-April-2025 Marie Louise - Replacement Dates: 23-April-2024 17-September-2025 29-October-2025 Goudkoppies - Replacement Dates: 01-March-2024 17-March-2025
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, Does the monitoring equipment represent good monitoring practise?	Yes, the sensors were tested in accordance with the manufacturer's specifications.
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	The sensors are replaced and tested along with the thermocouples.
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, Does the selected frequency represent good monitoring practise?	N/A
Company performing the calibration (internal or external calibration):	N/A

Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	N/A
Is (are) calibration(s) valid for the whole reporting period?	N/A
If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross checked with the raw data /06/ at the site during OSV.
How were the values in the monitoring report verified?	The reported data has been cross checked with the raw data /06/ at the site during OSV.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The necessary QA/QC procedures for this parameter are in place as provided in monitoring report /01/.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	N/A. Full set of data has been provided for the monitoring period.

The verification team can confirm that sufficient evidence is available for the whole monitoring period, the same is verifiable and that the data collection system meets the requirements of the monitoring plan and the applied methodology according to the assessment carried out during the on-site audit and in the document review.

Verification team confirms that the quality of evidence to determine the GHG reductions produced was found satisfactory. The detailed information flow with the roles and responsibilities of the individuals and the monitoring system have been provided in the VCS-MR/01/.

4.5 Non-Permanence Risk Analysis

Not applicable.

5 VERIFICATION OPINION

5.1 Verification Summary

Carbon Check (India) Private Limited has performed the verification of the project activity “Joburg Landfill Gas to Energy Project” in South Africa, with regards to the relevant requirements for VCS project activities.

The conclusions can be summarised as follows:

- The project is implemented and installed as planned and described in the registered VCS PD/03/ and the project activity confirms with the verification criteria for project and their GHG emission reductions or removals set out in the VCS rules.
- The monitoring plan is in accordance with the applied approved methodology, i.e. ACM0001, version 19/B02/ and monitoring plan as sought out in the registered VCS-PD/03/.
- The monitoring system is in place and functional. The project has generated verifiable GHG emission reductions.

As the result of the verification of project activities, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. Carbon Check (India) Private Ltd. herewith confirms that the project has achieved emission reductions in the below mentioned reporting period as follows. The project complies with the verification criteria for projects and their GHG emissions reductions or removals set out in VCS rules. The GHG statement provided herein is the responsibility of the project proponent and project conforms with the verification criteria for projects and their GHG emission reductions or removals set out in VCS Standard Version 4.7/B01-1/. The project has been implemented in accordance with the project description. In the course of the verification process 07 CARs, 07 CLs and 00 FARs were raised, all the CARs and CLs are closed. No FARs were raised during the course of verification.

5.2 Verification Conclusion

The level of assurance of the verification report falls under reasonable assurance engagements as selected by the Client. The verification team verified the monitoring data for all the parameters of the monitoring plan based on the sampling measures used by the project proponent and confirms that the reported emission reductions are free from any type of material errors.

Verification period: From 01-Novemberr-2024 to 31-October-2025

Verified GHG emission reductions and carbon dioxide removals in the above verification period:

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCU (tCO ₂ e)	Removal VCU (tCO ₂ e)	Total VCUs (tCO ₂ e)
Year 2024 01-Nov-2024 to 31-Dec-2024	43,839	44	0	43,795	0	43,795
Year 2025 01-Jan-2025 to 31-Oct-2025	163,020	226	0	184,039	0	184,039
Total	228,104	270	0	227,834	0	227,834

5.3 Ex-ante vs Ex-post ERR Comparison

Vintage period	Ex-ante estimated reductions/removals (tCO ₂ e)	Achieved reductions/removals (tCO ₂ e)	Percent difference	Explanation for the difference
01-Nov-2024 to 31-Dec-2024	102,945	43,795	42.58% lower than ex-ante	The VVB reviewed monitoring data, gas-flow measurements, landfill operational logs, system availability records, and site-access constraints. Evidence confirms that the lower-than-expected emission reductions are due to structural operational limitations, including reduced gas-collection efficiency caused by tipping practices, restricted access to waste cells, partial site operationalization, and limited access to newer waste layers. The achieved reductions are consistent with actual operating conditions, credible, and supported by verified data. No anomalies, inconsistencies, or indications of misreporting were identified.
01-Jan-2025 to 31-Oct-2025	524,287	184,039	35.10% lower than ex-ante	

Total	627,232	227,834	36.32% lower than ex-ante	
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APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

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Not applicable

APPENDIX 2: REFERENCES

S. No.	Document
/01/	Monitoring report v1.5 17-April-2025
/02/	Ex-post Emission reduction Calculation sheet v1 dated 01-December-2025 “ Consolidated ER Sheet 1 November 2024 to 31 October 2025 V3” “Consolidated ER Sheet 1 -November-2024 to 31-October-2025 V1”
/03/	Project design with version applicable for the current crediting period “2023-03-03 Jhb LFG VCS PD v9 clean”
/04/	Ex-ante Emission reduction spreadsheet « 2020-06-08 Joburg Landfills Ex Ante Calcs v2 »
/05/	Calibration records of flow meters, electricity meters, diesel tank, thermocouple, and other calibrated instruments.
/06/	Flare Operation Data for the period 01-November-2024 to 31-October-2025
/07/	Diesel volume records and Fuel (Diesel) Purchase Receipts for the period 01-November-2024 to 31-October-2025
/08/	Electricity consumption invoices from the source for the MP (01 -November-2024 to 31-October-2025)
/09/	Certification with specifications of the Span gas used to calibrate the infrared gas monitor Robinson Deep Site Span Gas Traceability Cert./Can. 541911 Valid from 01-April-2024 to 30-April-2025 Span Gas Traceability Cert./Can. 623374 Valid from 01-January-2025 to 31-January-2026 Marie Louise Site Span Gas Traceability Cert. 541824 Valid from 01-April-2024 to 30-April-2025

	Span Gas Traceability Cert. 687501 Valid from 01-May-2025 to 31-August-2026 Goudkoppies Site Span Gas Traceability Cert. 541918 Valid from 01-April-2024 to 30-April-2025 Span Gas Traceability Cert. 687625 Valid from 01-May-2025 to 31-August-2026
/10/	Declaration of no double counting and participation under other GHG programs provided by PP
/11/	Employment equity policy adopted by PP
/12/	Environmental Management Plan (EMP) developed by PP dated September 2009
/13/	Evidence for project start date (Email from VERRA regarding Renewal of crediting period under VCS)
/14/	Training records and certificates of staff during the period 01-November-2024 to 31-October-2025
/15/	Equipment Installation and Replacement Records • IR/UV Detector Sensor • Flare Thermocouple • Endress & Hauser Flow Meter • IR CH₄ Guardian
/16/	Power Purchase Agreement between the electricity buyer and Energy Joburg in the course of the project valid for 20 years. Marie Louise: 25-January-2018 Robinson Deep: 26-November-2016 Goudkoppies: 25-April-2017
/17/	Grievance Register (01 -November-2024 to 31-October-2025)
/18/	Amended and Restated Agreement for the Collection, Destruction, and Utilisation of Landfill Gas at Specified Johannesburg Landfill Sites 14/11/2013
/19/	Stakeholder ongoing communication 1. Attendance Sheet 2. Minutes of meeting 3. Agenda for Meeting 4. Stakeholder comments 5. Evidence of school shelter built

/20/	EIA reports prepared by the agency WSP Environment and Energy in September 2009 Marie Louise :12/12/20/1473 Robinson Deep :12/12/20/1474 Goudkoppies :12/12/20/1476
/21/	Implementation Agreement between ENER-G Systems Joburg (RF) Proprietary Limited and the Department of Energy, pursuant to the Renewable Energy Independent Power Producer Procurement Programme. Dated 27-August 2015
/22/	Noise Emission test result performed by Energy systems S.A dated 16-October-2024.
/23/	Waste Management License Signed by the Acting Manager of Water use from the Department of water affairs and Forestry Marie Louise Landfill: Number; 16/2/7/C221/D11/Z3/P65 Valid from 12-November-2003 Robinson Deep Landfill: Number; 16/2/7/C221/D11/22/P22 Valid from 16-January-2004 Goudkoppies Landfill: Number; 16/2/7/C211/D11/Z1/P15 Valid from 16/01/2004
/24/	Eskom Annual Reports 2023, 2024 and 2025
/25/	Manufacturer specifications of monitoring instruments: Electricity meters, Gas analyzer, thermocouple, Flare, UV sensor, Flow meter.
B01	1. VCS Standard, version 4.7 2. VCS Program Guide version 4.4 3. VCS Validation and Verification Manual, version 3.2 4. Registration and Issuance Process version 4.4 5. VCS Program Definitions version 4.4
B02	Large Scale CDM Methodology ACM0001: Large-scale Consolidated Methodology Flaring or use of landfill gas Version 19.0
B03	VCS MR Template version 4.4
B04	Website and links: 1. https://verra.org 2. https://cdm.unfccc.int 3. www.ipcc.ch 4. https://www.sanas.co.za

APPENDIX 3: ABBREVIATIONS

CAR	Corrective Action / Clarification Action
CER	Certified Emission Reduction
CAR	Corrective Action Request
Carbon Check	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism
CEB	Central Electricity Board
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalent
EB	CDM Executive Board
EF	Emission Factor
FA	Final Approval
FAR	Forward Action Request
FVR	Final validation Report
FPIC	Free, Prior and Informed Consent
GHG	Greenhouse gas(es)
GK	Goudkoppies Landfill Site
IPCC	Intergovernmental Panel on Climate Change
LFG	Landfill Gas
ML	Marie Louise Landfill site
MW	Megawatts
NEMA	National Environmental Management Act
MWh	Mega Watt Hour
N/A	Not Applicable
OSV	On Site Visit
PD	Project Design
PP	Project Participant
QC/QA	Quality control/ Quality assurance
RD	Robinson Deep Landfill site
SDG	Sustainable Development Goals
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
UNPA	United Nations Framework Convention on Climate Change CDM Project Activity
VER	Verified Emission Reduction
VCS	Verified Carbon Standard

VCU	Verified Carbon Units
VVB	Validation / Verification Body

APPENDIX 4: COMPETENCY CERTIFICATE

Carbon Check (India) Private Limited

Certificate of Competency

Campal Deepak Kadam

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS, A 6.4 AS/ ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|--|---|--|---|
| ☐ Management Function | ☐ Administrative | ☒ Validator/Verifier | ☒ Team Leader |
| ☐ Acting Team Leader | ☒ Technical Expert | ☐ Technical Reviewer | ☐ Trainee Assessor |
| ☒ Assessor | ☒ Regional Expert | ☐ Gender Expert | ☐ Financial Expert |
| <input type="text" value="India"/> | | | |
| ☐ Plastic Waste Expert | ☐ Health Expert | ☐ CCB Expert | ☒ SDG Expert |
| ☒ Expert Social Aspect | ☒ Expert Environmental Aspect | ☐ Internal Auditor | ☐ Legal Expert |
| ☒ FOEN Approved Technical Expert | ☐ FOEN Approved Quality Officer | | |

in the following Technical Areas:

- ☐ PWRP 2 - Plastic Waste Collection & Recycling
- ☒ TA 1.1 - Thermal energy generation
- ☒ TA 1.2 - Renewable Energy generation
- ☐ TA 10.1 - Fugitive emissions from oil and gas
- ☒ TA 13.1 - Solid waste and Wastewater
- ☒ TA 13.2 - Manure
- ☐ TA 14.1 - Afforestation and reforestation (except REDD & REDD+)

- ☐ TA 14.1 - Afforestation and reforestation (only REDD & REDD+)
- ☐ TA 15.1 - Agriculture (With Model Validation)
- ☐ TA 15.1 - Agriculture (Without Model Validation)
- ☐ TA 16.1 Carbon Capture and Storage ☒ TA 2.1 - Energy Distribution
- ☐ TA 3.1 - Demand Side Energy Efficiency
- ☐ TA 4.1 - Cement and Lime Production
- ☐ TA 4.n - Waste Heat Recovery & Fuel Switch ☐ TA 5.1 - Chemical Industry
- ☐ TA 5.2 - Caprolactam, Nitric and Adipic Acid ☐ TA 7.1 - Transport
- ☐ TA 8.1 - Mining/Mineral Production
- ☐ TA 9.1 - Aluminium and magnesium production
- ☐ TA 9.2 - Iron, Steel and Ferro-alloy Production
- ☐ TA PWRP 1 - Plastic Waste Collection & Recycling

Issue Date 26-11-2025 **Expiry Date** 26-11-2026

Vikash Kumar Singh
Director - Compliance

Carbon Check (India) Private Limited

Certificate of Competency

Seshan Ranganathan

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS, A 6.4 AS/ ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|--|--|--|---|
| ☐ Management Function | ☐ Administrative | ☒ Validator/Verifier | ☒ Team Leader |
| ☐ Acting Team Leader | ☒ Technical Expert | ☒ Technical Reviewer | ☐ Trainee Assessor |
| ☐ Assessor | ☒ Regional Expert | ☐ Gender Expert | ☐ Financial Expert |
| <div style="border: 1px solid black; padding: 2px; display: inline-block;">India</div> | | | |
| ☐ Plastic Waste Expert | ☐ Health Expert | ☐ CCB Expert | ☐ SDG Expert |
| ☐ Expert Social Aspect | ☐ Expert Environmental Aspect | ☐ Internal Auditor | ☐ Legal Expert |
| ☐ FOEN Approved Technical Expert | ☐ FOEN Approved Quality Officer | | |

in the following Technical Areas:

- ☐ PWRP 2 - Plastic Waste Collection & Recycling
- ☒ TA 1.1 - Thermal energy generation
- ☒ TA 1.2 - Renewable Energy generation
- ☐ TA 10.1 - Fugitive emissions from oil and gas
- ☒ TA 13.1 - Solid waste and Wastewater
- ☒ TA 13.2 - Manure
- ☐ TA 14.1 - Afforestation and reforestation (except REDD & REDD+)

- ☐ TA 14.1 - Afforestation and reforestation (only REDD & REDD+)
- ☐ TA 15.1 - Agriculture (With Model Validation)
- ☐ TA 15.1 - Agriculture (Without Model Validation)
- ☐ TA 16.1 Carbon Capture and Storage ☐ TA 2.1 - Energy Distribution
- ☒ TA 3.1 - Demand Side Energy Efficiency
- ☐ TA 4.1 - Cement and Lime Production
- ☐ TA 4.n - Waste Heat Recovery & Fuel Switch ☒ TA 5.1 - Chemical Industry
- ☐ TA 5.2 - Caprolactam, Nitric and Adipic Acid ☐ TA 7.1 - Transport
- ☐ TA 8.1 - Mining/Mineral Production
- ☐ TA 9.1 - Aluminium and magnesium production
- ☐ TA 9.2 - Iron, Steel and Ferro-alloy Production
- ☐ TA PWRP 1 - Plastic Waste Collection & Recycling

Issue Date 12-12-2025 **Expiry Date** 12-12-2026

Vikash Kumar Singh
Director - Compliance

APPENDIX 5: LIST OF FINDINGS

Table 1. CLs from this verification

CL ID	01	Section no.	2.1.2	Date: 07/11/2025
Description of CL				
1. In Section 2.1.1 of the Monitoring Report, it is stated that ongoing stakeholder consultations were conducted during this monitoring period and supported with evidence. However, the documentation provided only includes records for the stakeholder meeting held at the Marie Louise landfill site. PP shall provide information and supporting evidence of ongoing stakeholder consultations conducted at the other two landfill sites to demonstrate that consultations have been carried out for all project locations included in this monitoring period. 2. Based on the minutes of the ongoing stakeholder consultation held on 21 February 2025, it is indicated that the previous meeting took place on 22 November 2024. PP shall provide evidence (e.g., meeting minutes, attendance records, or related documentation) to substantiate that the consultation meeting on 22 November 2024 was conducted as stated. 3. From the stakeholder meeting records, it is noted that certain issues—particularly those related to working conditions in the operational area, health and safety (H&S), and illegal dumping—have been raised repeatedly by stakeholders. PP shall explain what measures have been implemented or are planned to address these recurring concerns and provide evidence of actions taken to resolve the identified issues.				
Project Proponent response				Date: 10/11/2025
1. The stakeholder consultation for the landfill site is called the landfill monitoring committee meetings and as these landfill site belong to Pickup we rely on Pickup to set up these meeting as the bulk of the communities' concerns are related to the operations of the landfill site, illegal dumping, traffic impacts and not the landfill gas project. Any consultation outside of this is done on an public initiated basis through their direct contact and engagement with the project which are captured in the public engagement register. Please refer to the Public Participation and stakeholder engagement document which details what is included in this scope. We have amended the monitoring report to include the site visits and engagement we have had with Robinson Deep in particular. 2. Please find the minutes and attendance register in the Public engagement folder for the 22 November Stakeholder engagement meeting. 3. As we do not own or operate the landfill site this responsibility falls to the site owner and operator, Pickup. We only have a right to use the gas and this is why our engagement and involvement in these processes is responsive and limited to the steering committee meeting with them at Marrie Lousie. For Robinson Deep and Goudkoppies we have a Socio Economic development programme that engages with local schools and we have our contact details displays at all the sites and maintain a register of all public engagement for each site.				
Documentation provided by Project Proponent				
We have provided an update MR titled "VCS MR Project ID 1240 01-11-2024-31-10-2025 V1.1 TC" And 22 November 2024 minutes and attendance register.				
VVB assessment				Date: 28/11/2025

1. The PP provided an updated Monitoring Report and supporting documentation demonstrating stakeholder engagement at all three landfill sites, including added evidence for Robinson Deep. The explanation regarding Pickup's role in conducting formal landfill monitoring committee meetings is consistent with project boundaries, and the public engagement registers confirm ongoing consultation. The evidence is sufficient. CL is closed.
2. The PP submitted the minutes and attendance register for the stakeholder consultation held on 22 November 2024. The documents were reviewed and found to be consistent with references in the Monitoring Report and subsequent meeting minutes, satisfactorily confirming the event. CL is closed.
3. The PP clarified that recurring operational issues fall under Pickup's responsibility as site owner/operator, while the PP's actions include participation in monitoring committee meetings, maintaining public engagement registers, and implementing socio-economic initiatives at project sites. The explanation and supporting evidence adequately address the expectation within the PP's scope. CL is closed.

CL ID	02	Section no.	2.3.1	Date: 07/11/2025
Description of CL				
Explanation provided for <i>Mitigation or preventative measure(s) taken for a</i> Potential sexual harassment is not satisfactory. PP shall provide a direct related mitigation and preventive measures				
Project Proponent response				Date: 11/11/2025
The PP states that the company complies with all South African laws and its constitution. The South African Constitution and its associated laws address sexual harassment by protecting the rights to dignity, equality, and fair labour practices. Sexual harassment is legally recognized as a form of unfair discrimination and a barrier to equality, prohibiting it in both the workplace and other contexts. This is enforced through legislation like the Employment Equity Act and the Protection from Harassment Act, which mandate prevention, provide clear complaint procedures, and offer legal recourse for victims.				
Documentation provided by Project Proponent				
None				
VVB assessment				Date: 28/11/2025
The PP has updated the Monitoring Report v1.2 to include mitigation and preventive measures aligned with the South African Constitution and related legislation governing sexual harassment, such as the Employment Equity Act and the Protection from Harassment Act. These frameworks provide recognised procedures for prevention and reporting, and their inclusion sufficiently addresses the requirement. CL is closed.				

CL ID	03	Section no.	3.1	Date: 07/11/2025
Description of CL				
Section 3.1 lacks sufficient information on the operational performance of the systems during the monitoring period and is not consistent with the requirements of the VCS MR template guide. Specifically: • The report does not provide details on operational uptime, maintenance activities, or interruptions that may have influenced landfill gas collection or electricity generation; • There is no mention of any technical or operational issues that could have affected GHG emission reductions or data monitoring; PP shall:				

• Provide a summary of operational status for each active site during the monitoring period, including any events that may have impacted gas collection efficiency, flaring, or electricity generation; • Include a clarification whether any technical or operational issues occurred that could have influenced GHG emission reductions or data monitoring, including a description of their nature, duration, and corrective actions taken; and	
Project Proponent response	Date: 13/11/2025
We have added an explanation of the operations process and key factors that impact operations of the plant and how this is managed. We have then included the operations hours run for the generation plant as this is the default operations configuration.	
Documentation provided by Project Proponent	
We have provided an update MR titled “VCS MR Project ID 1240 01-11-2024-31-10-2025 V1.1 TC”	
VVB assessment	Date: 28/11/2025
The PP has updated the Monitoring Report v1.2 to include a clear and sufficient summary of operational performance across all sites, including 24/7 operation, limited downtime events, use of backup systems, one-minute data logging, and detailed generator operational hours for each unit. The explanation of load-sharing and plant availability provides adequate assurance that any operational factors affecting gas collection or electricity generation have been accounted for. The update meets the VCS MR requirements. CL is closed.	

CL ID	04	Section no.	4.2	Date: 07/11/2025
Description of CL				
1. For the parameter “ Management of SWDS” In section 4.2, the VVB notes that, as per the South African National Standards, Government Gazette No. 34416 (2011), Sections 9.6 and 9.7, an Annual Environmental Performance Audit is mandatory for landfill gas projects in South Africa. The Project Participant (PP) shall provide the most recent Annual Environmental Performance Audit report or evidence confirming its completion for the current monitoring period and include in the monitoring report. 2. The PP is expected to provide regular inspections, continuous monitoring reports regarding landfill gas extraction, flaring, emissions, and site management as per the requirements of the Department of Forestry, Fisheries and the Environment (DFFE) and relevant municipal authorities. PP shall provide this document.				
Project Proponent response				Date: 13/11/2025
1. In terms of 9.6 the clause reads as follows: The environmental performance of the LFG extraction, flaring or recovery project should be reported and discussed in the landfill site steering committee meetings. As these are arraigned by Pickup as the owner and operator of the landfill site we can and have participated in these meetings to the extent that Pickup have an active steering committee in place. In terms of 9.7 we have provided copies of the audit reports as reference. 2. In terms of this requirement the South African National Standards, Government Gazette No. 34416 (2011) clause 9.2 states that “The authorities must be given access to audit and/or inspect the site at any time and at such frequency as they may decide, or to have the site audited or inspected at any time and at such frequency as they may decide” and as such the reports are not submitted but rather available for inspection.				

Documentation provided by Project Proponent	
We have provided the last three HSEED reports that are produced on a monthly basis and these include health Safety and environmental compliance checks and feedback on status of compliance. These are contained in a folder titled HSE ED.	
VVB assessment	Date: 28/11/2025
1. The PP clarified the requirements of Sections 9.6 and 9.7 of Government Gazette No. 34416 (2011), confirmed participation in landfill site steering committee meetings, and submitted the last three monthly HSEED reports. These reports demonstrate ongoing health, safety, and environmental compliance checks, including regular inspections and continuous monitoring of landfill gas extraction, flaring, emissions, and site management in line with DFFE requirements. CL is closed. 2. The PP explained that inspections and compliance monitoring reports required under Section 9.2 are made available to authorities upon request rather than routinely submitted, which aligns with the legal framework. The PP has provided three recent monthly HSEED reports demonstrating ongoing health, safety, and environmental monitoring at the sites. This satisfies the information request. CL is closed.	

CL ID	05	Section no.	Date: 07/11/2025
Description of CL			
PP shall provide the following updated documents and databases to ensure completeness and consistency of monitoring data:			
1. For all monitored parameters across the three project sites, the October 2025 monthly report is missing from all databases. PP shall provide the complete monitoring database, ensuring that the October 2025 data is included and all records are complete for the monitoring period. 2. The Goudkoppies CER's 2025 database is incomplete – data for August to October 2025 is not available. PP shall update and submit the complete database for this period. 3. The Marie Louise CER's 2025 database is incomplete – data for October 2025 is not available. PP shall update and provide the missing data to ensure completeness.			
Project Proponent response			Date: 14/11/2025
1. We have included all the monitoring parameters for all three sites for October and we have updated the ER calculation sheet to include this missing data. We have also pulled through all the data values into the MR to reflect the additional data sets. 2. We have provided the data in Dropbox for August to October. 3. We have provided the data for Robinson Deep for the month of October in Dropbox			
Documentation provided by Project Proponent			
Data sets for the month of August and September for Goudkoppies and October for all three sites in the respective Flare Data folders.			
Updated ER calculation sheet has also been provide			
We have provided an update MR titled "VCS MR Project ID 1240 01-11-2024-31-10-2025 V1.1 TC"			
VVB assessment			Date: 28/11/2025
1. The PP has provided the full October 2025 monitoring data for all three sites and updated the ER calculation sheet and Monitoring Report to incorporate the previously missing information. The monitoring database is now complete for the full period. CL is closed. 2. The PP has submitted the missing Goudkoppies CER data for August–October 2025 via the shared data folder, ensuring the database is now complete for the period. CL is closed. 3. The PP has provided the missing October 2025 CER data for Marie Louise (and Robinson Deep) in the shared data folder, completing the dataset for all sites. CL is closed.			

CL ID	06	Section no.	Consolidated ER Sheet 1 November 2024 to 31 October 2025 V1"	Date: 07/11/2025
Description of CL				
The TDL _{j,y} and TDL _{k,y} values used in the "Consolidated ER Sheet 1 November 2024 to 31 October 2025 V1" database differ in the calculation of project emissions and baseline emissions from electricity consumption for the monitoring year (y). PP shall clarify the reason for these inconsistencies and additionally explain why the TDL _{k,y} value from 2023 was used for the current monitoring period.				
Project Proponent response				Date: 14/11/2025
The Consolidated ER sheet has been corrected the TDL _{k,y} value for 2024 and 2025 has been used.				
Documentation provided by Project Proponent				
We have provided an update MR titled "VCS MR Project ID 1240 01-11-2024-31-10-2025 V1.1 TC" with the values pulled through.				
We have also provided the corrected Consolidated ER Sheet 1 November 2024 to 31 October 2025 V2				
VVB assessment				Date: 28/11/2025
The Project Proponent has corrected the TDL _{j,y} and TDL _{k,y} values in the updated Consolidated ER Sheet and aligned them with the applicable 2024–2025 data. The clarification provided is satisfactory. CL is closed.				

CL ID	07	Section no.		Date: 07/11/2025
Description of CL				
The EF _{EL,j,y} values used in the "Consolidated ER Sheet 1 November 2024 to 31 October 2025 V1" database differ between the calculations of project emissions and baseline emissions from electricity consumption for the monitoring year (y), resulting in inconsistencies. PP shall clarify the reason for these discrepancies				
Project Proponent response				Date: 14/11/2025
The one value has the value reflecting incorrectly with two number swopped around. This has been corrected in cell: G102 of the Project Emissions sheet.				
Documentation provided by Project Proponent				
We have provided the corrected Consolidated ER Sheet 1 November 2024 to 31 October 2025 V2				
VVB assessment				Date: 28/11/2025
PP has revised the ER calculation database to correct the identified issue. The updated version resolves the discrepancy. CL closed.				

Table 2. CARs from this Verification

CAR ID	01	Section no.		Date: 07/11/2025
Description of CAR				
1. The title page is not in line with VCS MR template. PP shall update the document with VCS MR template requirement "TITLE PAGE FORMATTING: Fill in and complete each row of the table using size 10.5, black, regular (non-italic) Arial or Franklin Gothic Book font."				

2. Section 2.1.4 – PP shall remove all blank rows from the table to ensure consistency and clarity in accordance with the VCS MR template format.
3. Section 2.2.1 – PP shall provide the full legal name of the project proponent as required by the VCS MR template.
4. Section 2.3.4 – The table format is inconsistent with the VCS MR template. PP shall revise the table to align with the prescribed structure and content requirements of the VCS MR template.
5. Section 2.3.5. 2.4.1, 2.4.2 and 2.4.3 are inconsistent with the VCS MR template guideline, which specifies that “Where a section is not applicable, explain why the section is not applicable (i.e., do not delete the section from the final document and do write ‘not applicable’).” PP shall revise the sections to comply with the template requirement.
6. Section 2.4 – The inclusion of the “Usage of fertilizer” row in the table is inconsistent with the VCS Monitoring Report (MR) template. This field is not part of the approved VCS template guidance or the registered VCS Project Description (PD). PP shall review and revise the table to align with the approved VCS MR template and PD, removing or correcting any non-applicable parameters.
7. Section 2.4.1 – The section is inconsistent with the VCS MR template guideline, which states that “Where a section is not applicable, explain why the section is not applicable (i.e., do not delete the section from the final document and do not only write ‘not applicable’).” PP shall revise the section to comply with the guideline.
8. Some sections of the MR omit measurement units for reported values (e.g., flow rates, energy generation, and emission quantities). PP shall include appropriate units consistently throughout the document.
9. Some sections of the MR do not include the complete titles and version numbers of the methodological tools applied in the project. PP shall include the full titles and version numbers of all methodological tools used

Project Proponent response

Date: 14/11/2025

1. Font has been formatted to 10,5
2. The additional row was deleted.
3. The full name has been used. By including the RF (PTY) Ltd.
4. The table has been replaced with the update MR version 1.2.
5. We have included an explanation and note Not Applicable where required.
6. We have corrected the table
7. This is corrected
8. The units have been included throughout the document.
9. Full titles and version number have been included.

Documentation provided by Project Proponent

We have provided an update MR titled “VCS MR Project ID 1240 01-11-2024-31-10-2025 V1.1 TC

VVB assessment

Date: 28/11/2025

1. The PP has reformatted the title page to comply with the VCS MR template requirements, including the correct font type and size. CAR is closed.
2. The PP has removed all blank rows from Section 2.1.4 to ensure clarity and consistency with the VCS MR template. CAR is closed.

3. The PP has updated Section 2.2.1 to include the full legal name of the project proponent, including “RF (PTY) Ltd.” as required. CAR is closed.
4. The table in Section 2.3.4 has been replaced and now aligns with the prescribed VCS MR template structure and content. CAR is closed.
5. Sections 2.3.5, 2.4.1, 2.4.2, and 2.4.3 have been revised to follow the guideline requiring explanations for non-applicable sections. CAR is closed.
6. The PP has corrected the table in Section 2.4, removing the non-applicable “Usage of fertilizer” row to ensure alignment with the approved VCS MR template and PD. CAR is closed.
7. Section 2.4.1 has been updated to include the required explanation rather than only stating “not applicable,” complying with the template guideline. CAR is closed.
8. All missing units of measurement have been added throughout the Monitoring Report to ensure consistency and clarity. CAR is closed.
9. The PP has included full titles and version numbers of all methodological tools applied in the project. CAR is closed.

CAR ID	02	Section no.	1.1	Date: 07/11/2025
Description of CAR				
1. The annual average GHG emission reductions for the second crediting period is not consistent with approved VCS PD. PD shall correct accordingly.				
Project Proponent response				Date: 14/11/2025
This value has been corrected.				
Documentation provided by Project Proponent				
We have provided an update MR titled “VCS MR Project ID 1240 01-11-2024-31-10-2025 V1.1 TC				
VVB assessment				Date: 28/11/2025
The PP has corrected the annual average GHG emission reductions to align with the approved VCS PD. CAR is closed.				

CAR ID	03	Section no.	1.3	Date: 07/11/2025
Description of CAR				
In Section 1.3 Sectoral Scope and Project Type, the sectoral scope stated by the PP is inconsistent with the sectoral scope defined in Section 2.4 (Applicability of Sectoral Scopes) of the applied methodology. Furthermore, the identified project activity type does not align with the methodology’s defined scope. PP shall review and revise the stated sectoral scope and project activity type to ensure full consistency with the applied methodology.				
Project Proponent response				Date: 18/11/2025
Updated the table to comply with Standard.				
Documentation provided by Project Proponent				
We have provided an update MR titled “VCS MR Project ID 1240 01-11-2024-31-10-2025 V1.1 TC				
VVB assessment				Date: 28/11/2025

The PP has updated Section 1.3 to ensure the sectoral scope and project activity type are fully aligned with the applied methodology and consistent with the requirements outlined in the VCS MR template and methodology Section 2.4. The revised table in the updated Monitoring Report reflects the correct sectoral scope and project type, resolving the inconsistency identified. CAR is closed.

CAR ID	04	Section no.	1.12	Date: 07/11/2025
Description of CAR				
1. The section does not identify or reference appendices or documentation that substantiate the SD contributions (e.g., monitoring data, SDG related spreadsheets). PP shall include reference to the evidence sources supporting each contribution, as required by the VCS MR template (Section 1.12). 2. Rows 2 and 3 in Table 1 (for CH₄ and LFG) incorrectly cite “SDG 3,” which relates to <i>Good Health and Well-being</i> and is not applicable to GHG reduction or landfill gas metrics. PP shall revise the SDG target numbers and indicators to correctly align with the official SDG framework				
Project Proponent response				Date: 18/11/2025
We have included a description and link between the SDG items and the emission reduction and project activities for each SDG element. We have also provided studies and reports that detail and support the health impacts of landfill gas on surrounding communities and by reducing these emissions the PP is able to contribute to the reduction of the health impacts and increase health through improved air quality.				
Documentation provided by Project Proponent				
We have provided an update MR titled “VCS MR Project ID 1240 01-11-2024-31-10-2025 V1.1 TC In the folder titled SDG document you will find the following documents: Landfill sites_ impact on health from emissions - GOV.UK, Medical journal LFG mortality, PowerStations, SDG_Country_report all of which refer to health impacts from landfill and power station emissions which this project activity reduces.				
VVB assessment				Date: 28/11/2025
1. The PP has revised Section 1.12 to include clear references to supporting evidence for each SD contribution, including monitoring data and documented sources. The updated MR now links each SDG contribution to relevant substantiating documents, satisfying the VCS MR template requirements. CAR is closed. 2. The PP has corrected the SDG references in Table 1, replacing the incorrect “SDG 3” citations for CH₄ and LFG metrics with SDG indicators aligned to emission reduction and air-quality-related impacts. The PP also provided supporting studies on the health effects of landfill emissions to justify the relevance of SDG 3 where applicable. The revisions appropriately align with the official SDG framework. CAR is closed.				

CAR ID	05	Section no.	4.1	Date:07/11/2025
Description of CAR				
1. Section 4.1 – For the parameter “GW_{PCH₄}”, the version number of the VCS Standard stated in the <i>Justification of choice of data or description of measurement methods and procedures applied</i> field is not correct. PP shall verify and correct the version number to reflect the applicable and current VCS Standard referenced in the monitoring report.				

2. Section 4.1 — For the parameter “ $\Phi_{default}$ ”, under the field “ <i>Justification of choice of data or description of measurement methods and procedures applied,</i> ” the stated site location is incorrect. PP shall verify and correct the site location information.	
Project Proponent response	Date: 14/11/2025
1. This has been corrected to V4.7. 2. The place used is the province in which the sites are located as the tool refers to regions for the determination of climatic conditions.	
Documentation provided by Project Proponent	
We have provided an update MR titled “VCS MR Project ID 1240 01-11-2024-31-10-2025 V1.1 TC	
VVB assessment	Date: 02/11/2025
1. The PP has corrected the VCS Standard version for the parameter GWPC₄ to Version 4.7 in the monitoring report. The correction is appropriate and aligns with the applicable requirements. 2. The PP’s clarification for the parameter “$\Phi_{default}$,” including the use of the provincial location consistent with the methodological tool’s regional climatic requirements, is appropriate and satisfactory. CAR is closed.	

CAR ID	06	Section no.	4.2	Date:07/11/2025
Description of CAR				
1. Average technical transmission and distribution losses for providing electricity (TDL_y) reported in the MR and used in the ER calculation is not consistent. PP shall correct it accordingly 2. Under the parameter “$v_{i,t,wb}$” — The reported serial number of the replaced gas analyser for the year 2024 is inconsistent with the serial number recorded on the <i>ROBINSON DEEP LANDFILL SITE</i> replacement form completed during that period. PP shall verify the details and correct the serial number. 3. Under the parameter “$v_{i,t,wb}$” — The MR is partially including replacement of gas analyser. PP shall provide complete report of “FLARE FIXED GAS ANALYSER” replacement for the monitoring period with their serial number 4. Under the parameter “Flame_m” — The replacement dates in 2024 reported in the MR and in Marie Louise Landfill site instrument replacement form is not the same. Pp shall correct it				
Project Proponent response				Date: 14/11/2025
1. The TDL values have been taken and updated from the 2024 and 2025 Eskom report and a reference provided in the supporting documentation in the Eskom annual reports folder. 2. The error has been correct in the MR. 3. This error is linked to the above error and has bene corrected. 4. The missing parameter has been included.				
Documentation provided by Project Proponent				
We have provided an update MR titled “VCS MR Project ID 1240 01-11-2024-31-10-2025 V1.1 TC				
VVB assessment				Date: 28/11/2025

1. The PP has updated the TDL values using the 2024 and 2025 Eskom reports and provided supporting documentation. CAR Closed.
2. The serial number inconsistency for the 2024 gas analyser has been corrected in the MR. CAR Closed.
3. The PP has provided the complete gas analyser replacement information for the monitoring period. CAR Closed.
4. The corrected replacement dates for the Marie Louise site have been included in the updated MR. CAR Closed.

CAR ID	07	Section no.	5.4	Date:07/11/2025
Description of CAR				
For the landfill site “Marie Louise”, the accumulated ECpj,y readings for all months reported in the “Consolidated ER Sheet 1 November 2024 to 31 October 2025 V1” database are not consistent with the data presented in the “Compound Power Supply Form 2025” database. PP shall verify and correct the inconsistencies between the two databases.				
Project Proponent response				Date: 14/11/2025
The value in the ER sheet was waiting for the October billing information which is now included and will now calculate correctly.				
Documentation provided by Project Proponent				
We have provided the corrected Consolidated ER Sheet 1 November 2024 to 31 October 2025 V2 and the worksheet with all the parameters included.				
VVB assessment				Date: 28/11/2025
The Project Proponent has corrected the inconsistency between the Consolidated ER Sheet and the Compound Power Supply Form. The updated documents now align. CAR closed.				