



**Verified Carbon
Standard**

2023 VERIFICATION REPORT

Greater New Bedford LFG
Utilization Project

Verra Project ID: 138



Report ID	12649241-RPT-1
Project title	Greater New Bedford LFG Utilization Project
Project ID	138
Verification period	01-October-2023 to 31-December-2023
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Client	CommonWealth Resource Management Corporation, for its wholly owned subsidiary CommonWealth New Bedford Energy, LLC
Prepared by	GHD Services Inc
Approved by	Ben Gerber – Lead Verifier
Work carried out by	Ben Gerber – Lead Verifier Angela Kuttemperoor – Verifier Gordon Reusing – Independent Reviewer

Summary:

CommonWealth Resource Management Corporation (CRMC), for its wholly owned subsidiary CommonWealth New Bedford Energy (Project Proponent) retained GHD Services Inc (GHD) to undertake a verification of the Greater New Bedford LFG Utilization Project (Project Activity) for the 01-October-2023 to 31-December-2023 Monitoring Period. The Project Activity is located at the Crapo Hill Landfill in Dartmouth, Massachusetts, United States and follows the requirements of the Verified Carbon Standard (VCS) voluntary offset program (Program). The Project Activity is listed under the VCS ID: 138.

The Project Activity involves the voluntary capture and utilization of landfill methane (“landfill gas” or “LFG”) at the Crapo Hill Landfill (the “Site” or the “Landfill”). The Site consists of an expanded active LFG collection system that captures the LFG, and four Caterpillar 3516 engine-generator sets that capture and combust the methane generated in the Landfill. A backup flare is also connected to the Landfill Gas (LFG) collection system to combust the LFG, when the engines are not operational. The Project achieves its emissions reductions through the destruction of LFG that would otherwise have been released into the atmosphere. However, it should be noted that the backup flare had not been used during the current verification period; therefore, no emissions reductions have been claimed from flaring.

The Project Proponent utilized the United Nations Framework Convention on Climate Change (UNFCCC) ACM0001, Version 16, “Large-scale Consolidated Methodology – Flaring or use of landfill gas” as per the registered VCS Project Description (VCS PD), dated 12 May 2016.

The scope of this verification is such that GHD, recognized as an independent third-party Validation and Verification Body by the VCS (Registration Number 027), is responsible for reviewing the Project Activity’s Monitoring Report, along with accompanying supporting materials and previous VCS Verification and Validation Reports. GHD utilized a risk-based analysis against the relevant requirements of both the interpretation from the VCS Program Guide and VCS Standard, as applicable.

As part of the verification process, GHD reviewed the completeness, conservativeness, and accuracy of the underlying evidence for the assumptions and claims made, and data sources used. The results of the investigation were then, together with the results of the review of other areas, combined to form the necessary input for the verification report and opinion.

The verification report and associated annexes document a total of 10 findings, which include:

- 4 Corrective Action Requests (CAR)
- 6 Clarification Requests (CL)

Upon review of the documentation and explanations provided by the Project Proponent, all findings were closed in a clear and transparent manner. GHD completed the verification in accordance with the VCS Program Guide, Version 4.4, and VCS Standard, Version 4.7, in addition to the UNFCCC CDM methodology and associated methodological tools. Based on the results of the verification, GHD is issuing a Positive Verification Opinion regarding this Project Activity and Monitoring Period. GHD therefore recommends/certifies that the registered Project Activity has obtained the reported emission reductions of 32,417 tonnes of carbon dioxide equivalent.

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1 INTRODUCTION

1.1 Objective

CommonWealth Resource Management Corporation (Project Proponent) retained GHD Services Inc (GHD) to undertake a verification of the Greater New Bedford LFG Utilization Project (Project Activity) for the 01-October-2023 to 31-December-2023 Monitoring Period. The Project Activity is located at the Crapo Hill Landfill in Dartmouth, Massachusetts, United States and follows the requirements of the Verified Carbon Standard (VCS) voluntary offset program (Program). The Project Activity is listed under the VCS ID: 138.

The Program requires the verification of the Monitoring Report for each monitoring period by an independent third-party accredited under ISO 14065 Greenhouse Gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition (ISO 14065). GHD Limited is accredited by ANAB under ISO 14065 as a greenhouse gas validation and verification body and under the VCS.

The objective of the verification is to provide the Project Proponent and the Program with an opinion on whether the Project Monitoring Report (Report) for the reporting period is free of material misstatements and that the information reported is accurate and consistent with the requirements of the Program.

GHD has prepared this Verification Report in accordance with ISO Standard ISO 14064 Greenhouse gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions (ISO 14064-3:2019) and with the Program requirements.

1.2 Scope and Criteria

This Project Activity falls under Sectoral Scope 1 – Energy industries (renewable/non-renewable sources) and Sectoral Scope 13 – Waste handling and disposal, consistent with the applicable Methodology. GHD is accredited for this type of work by ANAB under ISO 14065 as a greenhouse gas validation and verification body. GHD is responsible for reviewing the Monitoring Report including accompanying materials, the previous Verification Report, the registered VCS Project Description (PD), baseline assessment, and any supporting documentation. The following sections describe the scope of the verification.

1.2.1 Verification Standards

For the verification, GHD applied ISO 14064-3:2019 and the Program verification standards.

1.2.2 Verification Criteria

GHD applied the following verification criteria:

- ISO 14064 Greenhouse gases - Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements, ISO, April 2019 (ISO 14064-2)
- ISO 14064 Greenhouse Gases - Part 3: Specification with guidance for the verification and validation of greenhouse gas statements, ISO, April 2019 (ISO 14064-3)
- International Accreditation Forum Mandatory Document for the Use of Information and Communication Technology for Auditing/Assessment Purposes: Issue 2, July 2018 (IAF MD 4: 2018)
- VCS Program Guide, Version 4.3, dated 17 January 2023 (VCS Program Guide)
- VCS Standard, Version 4.7, dated 16 April 2024 (VCS Standard)
- VCS Validation and Verification Manual, Version 3.2, dated 19 October 2016 (VCS VVM)
- UNFCCC CDM Methodology ACM0001 “Large-scale Consolidated Methodology – Flaring or use of landfill gas”, Version 16.0, dated October 16, 2015 (Methodology)

1.2.3 Project Boundary

The Project is broken down into the following greenhouse gas Sources, Sinks and Reservoirs (SSRs) to be included, as defined in the Program’s Protocol. GHD understands the following SSRs are applicable to the Project Activity’s 2023 monitoring period:

– Baseline Emissions

- Methane from the SWDS
- Fraction of methane that would be oxidized in the top layer of the SWDS in the baseline.
- Amount of methane in the LFG destroyed within the project.

– Project Emissions

- Emissions from the combustion of electricity
- Emissions from the combustion of fossil fuels

1.2.4 Geographical and Operational Boundaries

The verification included SSRs from the Project Activity Site located at the following address:

Crapo Hill Landfill
300 Samuel Barnet Boulevard
Dartmouth, Massachusetts

Grid coordinates:

Latitude: 41°43' 28.12" N

Longitude: 70° 59' 04.82".

1.2.5 Reporting and Crediting Period

The Project Activity start date is January 01, 2022. The Project Activity is currently within its second crediting period from March 29, 2016, to March 28, 2026.

The monitoring period for this verification for the Project Activity is from 01-October-2023 to 31-December-2023.

1.2.6 Use of this Report

The verification report will be prepared for the use of Project Proponent and the Program.

References from GHD's Verification Report must use the language in which the opinion was issued and reference the date of issuance of GHD's Verification Report, the applicable verification period and the associated program for which the verification was conducted.

The GHG assertion provided by GHD can be freely used by Project Proponent for marketing or other purposes other than in a manner misleading to the reader. The GHD mark shall not be used by Project Proponent in any way that might mislead the reader about the verification status of the organization. The GHD mark can only be used with the expressed consent of GHD and then, only in relation to the specific time period verified by GHD.

1.2.7 Use of Information and Communication Technology

As part of the verification process, GHD may utilize information and communication technology (ICT) in accordance with IAF Mandatory Document for the use of Information and Communication Technology for Auditing/Assessment Purposes (IAF MD 4:2018) for various aspects of the verification, including conducting video/tele-conferencing with various personnel up to full virtual site visits.

The decision to use ICT is permissible if GHD and Project Proponent agree on using ICT. The agreed ICT method was MS Teams, Skype, Zoom, Google Meet, or Webex. By accepting GHD's proposal, Project Proponent agreed to the use of the afore mentioned ICT methods and their associated information security, data protection and confidentiality measures. Any other ICT method(s) was agreed to in writing (email) between GHD and Project Proponent prior to use. The parties did not agree to the use of an ICT method which either party does not have the necessary infrastructure to support. Throughout the entire verification process, including use of ICT, GHD abided by the confidentiality procedures.

1.3 Level of Assurance

GHD conducted this verification to a reasonable level of assurance.

1.4 Summary Description of the Project

The Project Activity (VCS ID:138) is located at the Crapo Hill Landfill in New Bedford, Massachusetts (Landfill, Facility, or Site). The Project Activity consists of the landfill gas (LFG) collection system and four (4) combustion engines, designed to capture, and combust methane generated within the Landfill. A back-up landfill flare is also connected to the LFG collection system to combust LFG, as needed, when the engines are not operational. The original baseline scenario of the Project Activity consists of the voluntary installation of twenty-one (21) vertical LFG extraction wells and a flare to combust the collected LFG.

This Project Activity falls under Sectoral Scope 1 – Energy industries (renewable/non-renewable sources) and Sectoral Scope 13 – Waste handling and disposal, for which GHD is accredited. GHD understands for the purposes of this verification, that all correspondence with respect to this Project Activity is with CRMC of which CNBE is a subsidiary, unless otherwise noted.

The verification activities were completed pursuant to the most up-to-date related rules, requirements, regulations, modalities, criteria, guidelines, emission reductions yield, and principles in relation to the PD supplied by the Project Proponent. The Project Activity utilized the UNFCCC CDM methodology ACM0001: Large-scale Consolidated Methodology – Flaring or use of landfill gas”, Version 16.0, dated October 16, 2015. This methodology has been accepted for use by the VCS as part of the validation of the second crediting period for the project that began on March 29, 2016, and ends on March 28, 2026.

1.4.1 Client Contact

Thomas Yeransian was GHD’s Client contact for this verification.

2 VERIFICATION PROCESS

2.1 Method and Criteria

2.1.1 Strategic Analysis

To understand the activities and complexity of the Project Activity, and to determine the nature and extent of the verification activities, GHD completed a strategic analysis. The

strategic analysis involved consideration of the details of the Project Activity Site and its operations, the Monitoring Report and its preparation, and the verification requirements per the Program. The information considered in the strategic analysis is documented in GHD's working papers and was used to inform the assessment of risks and the development of an evidence-gathering plan.

2.1.2 Assessment of Risk and Magnitude of Potential Errors, Omissions or Misrepresentations

GHD conducted an assessment of the risk and magnitude of potential errors, omissions or misrepresentations associated with the Monitoring Report statement/assertion. GHD then identified areas where qualitative or quantitative errors could occur and assigned risks to the areas. The inherent and control risks were evaluated, and detection risks were established. The risks were identified as high, medium and low. The risk assessment was a key input to developing an effective evidence-gathering plan.

2.1.3 Evidence-Gathering Plan

GHD developed an Evidence Gathering Plan (EGP) for internal use based on review of the objectives, criteria, scope, and level of assurance detailed above, along with consideration of the strategic analysis and assessment of risks. The EGP was designed to lower the verification risk to an acceptable level and specified the evidence (data and information) to be reviewed as part of the verification in the evidence gathering activities. The EGP was reviewed and approved by the Lead Verifier prior to issuing the verification plan. The EGP is dynamic and was revised, as required, throughout the course of the verification. Any modifications to the EGP were reviewed and approved by the Lead Verifier, with the final EGP completed prior to issuing the final verification report and opinion.

2.1.4 Verification Plan

GHD developed a Verification Plan based on a preliminary review of the data initially provided. GHD submitted the Verification Plan to Project Proponent on September 13, 2024. GHD's Verification Plan was revised, as required, throughout the course of the verification to address questions or initial concerns with data originally provided.

A copy of the final Verification Plan is included in Appendix A.

2.1.5 Quantitative Testing

Quantitative data or raw data was made available to GHD. GHD used the data to recalculate and check the GHG emission calculations and assess the methodologies that were used in the development of the Monitoring Report.

2.1.6 Materiality Level

Based on the reported emission reductions (i.e. less than 300,000 tonnes of carbon dioxide equivalent [tCO₂e]), the Project Activity is classified as a project, therefore the materiality was set at five (5) percent. In addition, a series of discrete errors, omissions, or misrepresentations of individual or a series of qualitative factors, when aggregated, may have been considered material.

Materiality was also assessed on a qualitative level, including conformance with the applicable Program and Protocol requirements. Non-conformance with Program requirements may have been considered a material error.

2.1.7 Verification Procedures

2.1.7.1 Conflict of Interest (COI) and Independence

GHD has undergone a thorough evaluation for conflict of interest (COI) and independence for this verification work. This included a review of other potential work conducted by GHD for Project Proponent and Project Activity listed in the scope of work. We have confirmed that this verification work can be successfully completed without undue risk of impartiality and conflict of interest. We have assessed the following key aspects:

- Verification evaluation
- Team evaluation

GHD has rigorous COI and verifier competency evaluation procedures that are followed for every verification project. Our documented procedures ensure that all COI and independence criteria are properly evaluated. GHD's COI program ensures that both the company and the Project Team have no potential COIs.

GHD has also evaluated and approved our Verification Team's competencies. GHD sets competency requirements in terms of education, verification experience, and experience in the sector. GHD can attest that we have highly qualified staff with the appropriate technical expertise for the verification work.

2.1.7.2 Issues Communications

During the course of the document review and interviews, questions and clarifications were identified by the Project Team; these were communicated with Project Proponent either verbally, by email, or in an Issues Log. Project Proponent and/or Project staff had the opportunity to respond to identified issues prior to the completion of GHD's draft and final verification reports. Material issues identified by GHD were requested to be corrected by Project Proponent.

2.1.7.3 Independent Review

GHD conducted an independent review of the verification, which included a review of findings, emission calculations and opinion developed by the verification team. The Independent Reviewer completed a review of the Draft Verification Report and found no additional findings that required response from the Project Proponent.

2.1.7.4 Methodologies Used to Assess/Verify Emissions Data

The verification procedures were used to assess the following:

1. Accuracy and completeness of Monitoring Report
2. Uncertainty of external data sources used
3. Emission assumptions
4. Accuracy of emission calculations
5. Potential magnitude of errors and omissions

To sustain a risk-based assessment, the GHD Project Team identified and determined risks related to the GHG emissions during the desk reviews, site visit and the follow-up interviews as applicable. The GHD Project Team focused on the accuracy and completeness of provided information. The components of the document review and follow-up interviews were:

- Document Review:
 - Review of data and information to confirm the correctness and completeness of presented information
 - Cross-checks between information provided in the Monitoring Report and information from independent background investigations
 - Determine sensitivity and magnitude analysis for parameters that may be the largest sources of error
 - Comparison of reported emissions and emissions reductions with the previous reporting period(s)
- Follow-up Interviews:
 - Via telephone
 - Via email
 - Via ICT

The document review established to what degree the presented Monitoring Report documentation met the verification standards and criteria.

The GHD Project Team's document review during the review process comprised of, but was not limited to, an evaluation of whether:

- The documentation is complete and comprehensive and follows the structure and criteria required by the Program.
- The monitoring methodologies are justified and appropriate.

- The assumptions behind the inventory are conservative and appropriate.
- The GHG emission calculations are appropriate and use conservative assumptions for estimating GHG emissions and emissions reductions.
- The GHG information system and its controls are sufficiently robust to minimize the potential for errors, omissions, or misrepresentations
- The Monitoring Plan clearly identifies the frequency of responsibility and authority for, monitoring, measurement, and data recording activities and sufficiently describes quality control/quality assurance/management control procedures

The GHD Project Team interviewed Project staff to:

- Cross-check information provided
- Test the correctness of critical formulae and calculations
- Review data management and recording procedures

GHD completed checks of data from point of collection (meter, scale, etc.), through the Project data management systems, then it's use in the development of the Monitoring Report. A sample of raw data was collected for checks and recalculations as applicable. Where errors or anomalies were identified that could lead to a material misstatement, GHD requested further raw data samples to assess the pervasiveness of the errors or anomalies, as applicable. GHD identified the source and magnitude of data or methodology errors or anomalies; however, as a verification body, GHD did not provide solutions to issues identified, where applicable.

2.2 Document Review

The VCS verification process relies heavily upon document review. The primary document for review is the 2023 Monitoring Report (Version 4). The Project Proponent provided GHD with the Monitoring Report and revised Monitoring Report as detailed below:

Document Date	Date Issued to GHD	Version Number	Methodology
03 September, 2024	03 September, 2024	1	ACM0001 V16.0
08 November, 2024	08 November, 2024	2	ACM0001 V16.0
19 November, 2024	19 November, 2024	3	ACM0001 V16.0
24 February, 2025	24 February, 2025	4	ACM0001 V16.0

GHD reviewed the above submissions. GHD did not identify any issues in the Monitoring Report Version 3.

During the document review, GHD became familiar with the Project Activity to ensure the Project Proponent accurately described the on-Site conditions within the Monitoring Report. During the document review, GHD completed the following:

- Review of the data and information presented to verify completeness
- Review of the VCS PD and Monitoring Report, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures
- Evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions
- Review of the last revision of the previous verification and validation reports
- Review of operation licenses from local authorities
- Cross-check of available documentation with the registered VCS PD and Monitoring Report
- GHD followed the audit trails and data sets for specific indicators and cross-checked the applicable records.

Specifically, during the verification GHD reviewed the following documents:

- *“Daily Reports 2023 Q4 GHG”* which showed the electricity consumption during the monitoring period.
- *“VCS ER Calculation Spreadsheet - project 138 01Oct23 to 31Dec23”* which included the project proponent’s calculations and supporting data required for the calculations such as monitoring and methane content values.
- *“VCS MR Project ID 138 01OCT2023-31DEC2023”* which were the four versions of the monitoring report which are referenced in the table above.

In addition to the above, GHD reviewed the data and information included within the nine exhibits of the monitoring report. These included documents and other evidence such as field logs, calibration records for key equipment, supporting data used within the calculations, attestation statements, permits and regulatory documentation, and REC agreements. GHD is confident that the documentation reviewed was comprehensive and provides an adequate foundation to be able to verify the monitoring period to a reasonable level of assurance.

2.2.1 GHG Data and Information

As part of the verification process GHD requested and reviewed, additional documentation supplemental to the Monitoring Report. The list of documents reviewed for the verification is provided in Appendix C.

2.3 Interviews

Ben Gerber of the GHD Project Team met with the Project Proponent using Microsoft Teams on September 13, 2024, during the verification of the Monitoring Report. GHD followed up with the Project Proponent on an as needed basis throughout the remainder of the verification.

2.3.1 Effectiveness of ICT

GHD discussed with Client the availability of ICT technologies. Client agreed to the use of ICT by accepting GHD's proposal. GHD reviewed and confirmed the effectiveness of these techniques. MS Teams was used primarily for the Project kick-off call. GHD assessed that the ICT techniques were effective in supporting the verification activities. This was based upon the fact that GHD had visited the project site during the verification of a previous monitoring period. Through conversations with the project proponent, GHD confirmed that there had not been material changed to the project, or project site, that would require an in-person site visit to take place. This decision was supported by the results of GHD's risk assessment table within our internal working papers.

2.4 Site Visits

The verification process consisted of a thorough document review. GHD elected not to complete an in-person Site Inspection during the verification as GHD completed a Site Inspection on February 19, 2019, during the verification of the 2018 Monitoring Period. Given that none of the core Project Activity components (e.g., data collection, data management, metering, etc.) changed from the previous verification and associated Site inspection, GHD determined that an in-person Site Inspection for the Monitoring Period was not required to achieve a reasonable level of assurance.

2.4.1 Project Boundary

GHD reviewed the Project Activity's operations to confirm that all emission sources and sinks are included in the Report. Specifically, GHD completed the following:

- Reviewed data management systems
- Reviewed process flow diagram

GHD understands the Project boundary for the Project Activity must conform to Table 2 of the Protocol. Project's emission sources, sinks and operations are well defined. The Project Activity has reported emissions from the sources described in Section 1.2.3.

2.5 Resolution of Findings

The Verification findings are categorized either as a Corrective Action Request (CAR), Forward Action Request (FAR), or as a Clarification Request (CL).

The GHD Project Team raised CARs in this Assessment if:

- The Project Proponent had made errors in assumptions or in the Project documentation that directly influenced the Project results.
- The VCS requirements deemed relevant for verification of the Project Activity were not met.
- There was a risk that the Project Activity would not be registered by the VCS or that emission reductions cannot be monitored, calculated, verified, and/or certified.

- The Project Proponent made mistakes that would influence the ability of the Project Activity to achieve relevant, complete, consistent, accurate, transparent, and conservative emission reductions.
- The VCS requirements have not been met.

When issued, FAR's highlight issues related to Project implementation that require review during the subsequent verification of the Project Activity. FAR's do not relate to the VCS requirements for registration and thus do not require any formal response from the Project Proponent.

CLs were issued to EM if the GHD Project Team determined that the information provided by EM was insufficient, unclear or not transparent enough to establish whether the applicable requirements are met.

Each CAR and CL raised by GHD was presented in individual rows of a table that comprised the findings assessments. EM was required to complete the appropriate responses and to provide, where necessary, documentation as evidence of their assumptions and/or responses. The final Version of the Findings Assessment is provided in Appendix B.

A summary of the final results of the Findings Assessment is presented as follows:

Finding Category	Number of Findings
CL	6
FAR	0
CAR	4
TOTAL	10

2.5.1 Forward Action Requests

No FARs were raised during the course of the verification.

2.6 Eligibility for Validation Activities

Validation activities were not performed as part of this verification.

2.7 Verification Team and Independent Reviewer

2.7.1 Roles, Responsibilities & Qualifications

Lead Verifier/Technical Expert	
Name	Ben Gerber
Role	The lead verifier led the verification and was responsible for development of the verification plan. The lead verifier reviewed the risk assessment and evidence gathering plan, recalculation of raw data,

Lead Verifier/Technical Expert	
	data management and draft findings. The lead verifier prepared and signed the verification statement and verification report.
Qualifications	Mr. Gerber holds a Master of Climate Change degree from the University of Waterloo. Mr. Gerber has been a verifier since 2018, completing various GHG assurance work in numerous jurisdictions throughout North America including Ontario, Alberta, California and other voluntary markets. Mr. Gerber has experience conducting GHG assurance work for a variety of industrial sectors including iron and steel production, electricity generation, manufacturing, petroleum importation, ethanol production and food production. Mr. Gerber has also conducted offset verifications and validations under the Climate Action Reserve, Verra (VCS), and the American Carbon Registry. In addition to GHG assurance services, Ben has been a technical expert on project teams providing advisory services to Canadian provinces preparing to develop provincial offset programs. This work involved analysis of the various carbon offset programs and regulations in place throughout North America and the provision of recommendations related primarily to offset protocol applicability and program feature design.

Verifier	
Name	Angela Kuttemperoor
Role	The verifier developed and revised the verification plan and evidence gathering plan, developed a risk assessment, recalculated raw data, reviewed management of data, and prepared draft findings and the draft verification report.
Qualifications	Ms. Kuttemperoor is an Air Engineer-In-Training with GHD's Greenhouse Gas Assurances Services Team and has 2 years of experience in greenhouse gas verification work. Ms. Kuttemperoor has a Bachelor of Environmental Engineering (co-op) from the University of Guelph. Ms. Kuttemperoor has experience as a verifier under the Ontario Emissions Performance Standards program and federal Output-based Performance Standards program. Ms. Kuttemperoor has expertise in voluntary offset project validations and verifications conducted under the Climate Action Reserve, American Carbon Registry and Verified Carbon Standard for landfill gas destruction and ozone-depleting substances destruction projects. Ms. Kuttemperoor has experience with compliance offset verifications for ozone-depleting substances conducted under the California Air Resources Board. Ms. Kuttemperoor has experience in verifications conducted under the Carbon Offsetting and Reduction Scheme for International Aviation.

Independent Reviewer/Technical Expert	
Name	Gordon Reusing
Role	The independent reviewer conducted an independent review of the risk assessment, evidence gathering plan, working papers, verification plan, verification report, and findings. The independent reviewer approved the issuance of the opinion.
Qualifications	Mr. Reusing is a greenhouse gas (GHG) Lead Verifier, Lead Validator, and Peer Reviewer with extensive experience including GHG programmes in Alberta, British Columbia, Saskatchewan, Ontario, Quebec, Nova Scotia, California, and programmes operated by the United Nations Framework Convention on Climate Change (UNFCCC) Clean Development Mechanism (CDM), The Gold Standard, The Climate Registry (TCR), the Carbon Disclosure Project (CDP), and Verra: Verified Carbon Standard (VCS). He has completed numerous GHG quantification studies for the oil and gas sector, including upstream, midstream and downstream facilities. Mr. Reusing has conducted GHG verifications as a Lead Verifier, Technical Expert and Peer Reviewer in many jurisdictions, including, but not limited to, British Columbia, Alberta, Ontario, Quebec, and Nova Scotia.

3 VALIDATION FINDINGS

3.1 Methodology Deviations

There were no validation activities that took place during the verification of this monitoring period.

The following table outlines the methodology deviations previously validated and approved for the Project Activity:

Number	Deviation	Approval Timeline
1	The SCADA system was programmed to calculate the methane gas flow in units of million British thermal units (MMBtu) using standardized gas flow (at 68°F and one atmosphere of pressure), methane concentration, the gross heat content (higher heating value) of methane, and the actual temperature and pressure. CNBE determined the volume of methane destroyed by converting the MMBtu values to total methane gas flow in standard cubic feet. This deviation from the monitoring methodology was previously approved by independent verifiers and had a conservative impact on the quantification of GHG emissions reductions during the verification period.	Approved during the validation of the initial crediting period.
2	The Project reference conditions are 20 degrees Centigrade and 1 atmosphere rather than ACM0001 reference conditions of 0 degrees Centigrade and 1 atmosphere.	Approved during the validation of the initial crediting period.
3	A separate LFG meter is not present on each of the four combustion engines. A single meter is used immediately before the piping splits to each engine. This meter is continuously recording data. Operating data is tracked for each engine, so it is possible to calculate the flow destroyed by each engine and to ensure that LFG is destroyed. Flow controls are in place to ensure no LFG is sent to an engine that is not operating. This does not affect the conservativeness of the emissions reductions claimed.	Approved during the re-validation assessment in 2016.
4	Ex-ante emissions reductions calculations use historic Project specific data as the basis for projecting future emissions rather than the required CDM estimation tools. Using real data allows the estimations to be more accurate and reflect actual Project operating conditions. This does not affect the conservativeness of the emissions reductions claimed but increases the accuracy of the ex-ante projections ensuring the project is forecasting obtainable, appropriate emissions reductions.	Approved during the re-validation assessment in 2016.

Number	Deviation	Approval Timeline
5	There is no flow meter installed on the collection pipe from the District Initial System to separately monitor the contribution of the original baseline system. Given the collection system design and meter requirements, installing a meter at this location would not produce reliable, meaningful results. Instead, well-head flow measurements are collected manually. These results are used to calculate the relative contribution of the District Initial System to the overall flow of LFG destroyed by the engines. This portion of the total flow represents FCH ₄ ,BL _y and will be calculated on a monthly basis and subtracted from the total flow to account for the amount of methane destroyed in the baseline scenario. This approach represents an accurate measurement of the flow because (a) the portion of the landfill that includes the District Initial System (Phase 1) is capped so no landfill gas can be passively emitted to the atmosphere, and (b) the remaining active wells from the District Initial System are located in such a way as to enable capture of all LFG generated within the sphere of influence of the District Initial System. This deviation decreases the conservativeness of the emissions reductions claimed but significantly increases the accuracy of the calculations as is allowable under VCS Standard v4.7, Section 3.20.1 and 2.	Approved during the re-validation assessment in 2016
6	The Project uses the eGrid electricity emissions factor rather than the default emissions factor provided in the CDM tool as explained in the project emissions section. This deviation decreases the conservativeness of the emissions reductions claimed but significantly increases the accuracy of the calculations as is allowable under VCS Standard v4.7, Section 3.20.1 and 2.	Approved during the re-validation assessment in 2016.

Based on the information provided to GHD from the Project Proponent, GHD concludes that the Project Activity continues to operate as described in the VCS PD and the deviations applied are appropriate and representative.

3.2 Project Description Deviations

There were no validation activities that took place during the verification of this monitoring period.

3.3 New Project Activity Instances in Grouped Projects

There were no validation activities undertaken as a part of the verification of this monitoring period and this is not a grouped project.

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	- Audit Type (Validation), Period (29-March-2016 to 28-March-2026), Program (Energy Industries). Validation/Verification body (GHD Limited), Number of years (10). - Audit Type (Verification), Period (29-March-2016 to 30-June-2016), Program (Energy Industries). Validation/Verification body (Ruby Canyon Engineering), Number of years (0.25). - Audit Type (Verification), Period (1-July-2016 to 31-December-2016 and 1-January-2017 to 30-April-2017), Program (Energy Industries). Validation/Verification body (Ruby Canyon Engineering), Number of years (0.75). - Audit Type (Verification), Period (1-May-2017 to 31-December-2017), Program (Energy Industries). Validation/Verification body (Ruby Canyon Engineering), Number of years (1). - Audit Type (Verification), Period (1-January-2018 to 31-December-2018), Program (Energy Industries). Validation/Verification body (GHD Limited), Number of years (1). - Audit Type (Verification), Period (1-January-2019 to 30-September-2019), Program (Energy Industries). Validation/Verification body (GHD Limited), Number of years (0.75). - Audit Type (Verification), Period (1-October-2019 to 31-December-2019 and 1-January-2020 to 30-June-2020), Program (Energy Industries). Validation/Verification body (Ruby Canyon Engineering), Number of years (0.75).

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
	• Audit Type (Verification), Period (1-July-2020 to 31-December-2021 and 1-January-2021 to 31-March-2021), Program (Energy Industries). Validation/Verification body (GHD Services, Inc.), Number of years (0.75). • Audit Type (Verification), Period (1-April-2021 to 31-December-2021), Program (Energy Industries). Validation/Verification body (GHD Services, Inc.), Number of years (0.75). • Audit Type (Verification), Period (1-January-2022 to 30-June-2022), Program (Energy Industries). Validation/Verification body (GHD Services, Inc.), Number of years (0.5). • Audit Type (Verification), Period (1-July-2022 to 31-December-2022), Program (Energy Industries). Validation/Verification body (GHD Services, Inc.), Number of years (0.5). • Audit Type (Verification), Period (1-Jan-2023 to 30-Sept-2023), Program (Energy Industries). Validation/Verification body (GHD Services, Inc.), Number of years (0.75). • Audit Type (Verification), Period (1-Oct-2023 to 31-Dec-2023), Program (Energy Industries). Validation/Verification body (GHD Services, Inc.), Number of years (0.25), (Current Verification).
Double counting and participation under other GHG programs	GHD completed a project search to assess if the project was active under any other GHG programs. The project is not active under any other programs except for VCS.
No double claiming with emissions trading programs or binding emission limits	There are no project reductions and removals, or project activities included in an emissions trading program or binding emissions limit.

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
	GHD performed a regulatory review of requirements within the state and did not identify any requirements for emissions trading program or emissions limit at either the federal or state level.
No double claiming with other forms of environmental credit	GHD performed a review of the Project's environmental attributes and determined that the project activity has not sought, received or is planning to receive credit from another GHG-related environmental credit system.
Supply chain (scope 3) emissions double claiming	Due to the nature of the Project Activity, GHD determined that the activities had no effect on the emissions footprint of any product(s) (goods or services) that are part of a supply chain.
Sustainable development contributions	GHD assessed that the project has sufficient avenues to claim for support several SDG targets which include. - SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy. - SDG 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. - SDG 13 - Tonnes of greenhouse gas emissions avoided or removed. - GHD also verified that the project supports the United States Environmental Protection Agency (EPA) Landfill Methane Outreach Program (LMOP) by checking if the site is listed on the EPA website.
Additional information relevant to the project	GHD determined that this was not applicable.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	GHD did not identify any changes in the stakeholder make up since validation.
Legal or customary tenure/access rights	GHD did not identify any changes in the stakeholder make up since validation.
Stakeholder diversity and changes over time	GHD did not identify any changes in the stakeholder make up since validation.
Expected changes in well-being	GHD did not identify any changes in the stakeholder make up since validation.
Location of stakeholders	GHD did not identify any changes in the stakeholder make up since validation.
Location of resources	GHD did not identify any changes in the stakeholder make up since validation.

4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Ongoing consultation	The Monitoring Report states that the project stakeholders are CNBE and the District. CNBE communicated daily during the work week with the District. CNBE meets with the District monthly after CNBE operations meetings. GHD confirmed that regular consultation occurs with key stakeholders.
Date(s) of stakeholder consultation	Ongoing consultation.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Communication of monitored results	GHG confirmed that stakeholder communications were conducted via emails, telephone communications and in-person meetings.
Consultation records	GHD understands that the primary ongoing consultation records which are prepared by CNBE and are related to the Project's performance, is the "Statement for Purchase of Landfill Gas from the District". This is provided to the District every first week after each month. Public input may also be received via email to the Project Proponent.
Stakeholder input	The Project Proponent does have effective mechanisms in place to gather stakeholder input on an ongoing basis.

4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	GHD has verified that the Project does not affect Indigenous People, local communities, and customary rights holders, rights to land, territories and resources. Further, the Project applied for and underwent all appropriate permitting processes, including options for comment periods.
Outcome of FPIC discussion	GHD assessed and confirmed that the Project has not encroached on land, relocated people, and forced physical or economic displacement. The landfill was already existing prior to the project start date and the installation of a gas collection and control system did not affect the land already owned by the Site.

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	Per the Monitoring Report there were no grievances identified during the crediting period and during the current reporting period. GHD reviewed all available platforms for comments and discussed grievances with the Project contact and did not identify any existing grievances to be resolved. The Project Proponent described their grievance redress procedure to GHD and within the updated Monitoring Report. From our review, GHD believes the project has a sufficient grievance redress procedure in place. GHD concludes that the procedure and accessibility of the procedure conforms with the requirements.
Grievance redress procedure	If grievances are identified which result in changes to the Project, renewed permits may be required. As there were no grievances identified during the crediting period and current reporting period, no updates were required.

4.2.5 Public Comments

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
No comments received this Monitoring Period.	No ongoing comments or concerns were submitted during this reporting period	Not applicable as no comments received.

4.2.6 Risks to Local Stakeholders and the Environment

4.2.6.1 Management Experience

GHD reviewed the processes and management systems in place to effectively manage risks to local stakeholders and the environment. The Project has demonstrated compliance with local laws and regulations and holds the required environmental permits. Additionally, the Project maintains ongoing stakeholder feedback mechanisms which could be used by local stakeholders to identify risks as well. The management team for the Project has been effectively operating this project since Project implementation and were therefore determined to have sufficient managerial experience to competently manage risks to local stakeholders and the environment.

4.2.6.2 Risk Assessment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Natural and human induced risks to stakeholders' wellbeing	The landfill was pre-existing prior to project implementation and underwent a considerable permitting process. Potential risks from the Project would include air pollution and associated human health impacts. Due to the extensive permitting process, GHD agrees with the Project Proponent that the Project does not adversely impact stakeholder wellbeing.
Risks to stakeholder participation	GHD confirmed that no risks have been identified associated with stakeholder participation as stakeholders have an ongoing opportunity to provide feedback on the Project.
Working conditions	The Project Proponent identified operations-related risks which are effectively managed by their Safety Plan, Spill Prevention Control & Countermeasures Plan for Project operations, safety training, logs and insurance. GHD agrees with the assessment of the risk management.
Safety of women and girls	GHD did not identify any existing risks regarding the safety of women and girls due to the implementation of this Project. Additionally, no complaints have been made to the Project Proponent on this topic.
Safety of minority and marginalized groups, including children	GHD did not identify any existing risks concerning the safety of minority and marginalized groups, including children due to the implementation of this Project. Additionally, no complaints have been made to the Project Proponent on this topic.

Pollutants (air, noise, discharges to water, generation and release of hazardous materials and chemical pesticides and fertilizers)	The Project Proponent identified that there is a risk of uncontrolled release of landfill gas from the Landfill. GHD investigated and confirmed that the Project collects and controls landfill gas generated by the landfill therefore reducing the potential for uncontrolled releases of landfill gas to the environment. GHD also assessed and verified that the Project does not release any hazardous materials, chemical pesticides and fertilizers into the environment.
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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	GHD reviewed the Monitoring Plan and relevant laws and regulations. GHD did not identify any risk and confirmed that by abiding by United States federal and Massachusetts State laws, the Project has adequately mitigated risk of discrimination.
Sexual harassment	GHD reviewed the Monitoring Plan and relevant laws and regulations. GHD did not identify any risk and confirmed that by abiding by United States federal and Massachusetts State laws, the Project has adequately mitigated risk of sexual harassment.
Gender equity in labor and work	GHD did not identify any risk and confirmed that as the Project is operating in accordance with the United States federal and Massachusetts State laws, there is limited risk of gender inequalities.
Forced labor	It is GHD's understand that the Project does not use victims of forced labor. GHD did not identify any risk of this activity and confirmed that it is prohibited by CNBE in accordance with the United States federal and Massachusetts State laws.
Child labor	It is GHD's understand that the Project does not use victims of child labor. GHD did not identify any risk of this activity and confirmed that it is prohibited by CNBE in accordance with the United States federal and Massachusetts State laws.

Human trafficking	It is GHD's understand that the Project does not use victims of human trafficking. GHD did not identify any risk of this activity and confirmed that it is prohibited by CNBE in accordance with the United States federal and Massachusetts State laws.
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4.2.7.2 Human Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
Not applicable	GHD did not identify any risk and confirmed that it is prohibited by CNBE in accordance with the United States federal and Massachusetts State laws.

4.2.7.3 Indigenous Peoples and Cultural Heritage

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
Not applicable	GHD did not identify any risk and confirmed that the Project does not affect the cultural heritage of the Indigenous People, local communities, and customary rights holders.

4.2.7.4 Property Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
Not applicable	GHD investigated and confirmed that no disputes over rights to territories and resources have occurred.

4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	GHD evaluated CNBE's payments to the District for the landfill gas utilized by the Project as well as the additional contingent payments made to the District based on the sale of products produced by the Project. GHD found that no change to the Districts compensation occurred during the monitoring period.

Benefit sharing during the monitoring period	GHD evaluated the benefits that CNBE pays the District and found that the payments also benefit the host communities; the City of New Bedford and Town of Dartmouth. These benefits are in the form of economic support to the Districts solid waste management.
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4.2.8 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	GHD did not identify any risk and confirmed that the Project has no impact on biodiversity and ecosystem health.
Soil degradation and soil erosion	GHD did not identify any risk and confirmed that the Project has no impact on soil degradation and soil erosion.
Water consumption and stress	GHD did not identify any risk and confirmed that the Project has no impact on water consumption and stress.

4.2.8.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species or habitat	GHD investigated the Project's surrounding and found that it is not located in or adjacent to any habitats for rare, threatened, or endangered species. GHD also discovered that the original permit was granted by the Secretary of the Massachusetts Executive Office of Environmental affairs. As part of the approval process the secretary found that the project site was a previously disturbed land without any habitat of rare species, vernal pools, priority sites of rare species or exemplary natural communities therefore no alteration of designated significant habitat or taking of an endangered or threatened species will occur. GHD did not find any changes during the monitoring period.
Areas needed for habitat connectivity	GHD verified that the Project is not located in or adjacent to habitats for rare, threatened, or endangered species.

Evidence gathering activities, evidence checked, and assessment conclusion	
Habitats for rare, threatened, and endangered species	GHD did not identify any risk and confirmed that the Project is not located in or adjacent to habitats for rare, threatened, or endangered species.
Areas for habitat connectivity	GHD did not identify any risk and confirmed that the Project is not located in or adjacent to habitats for rare, threatened, or endangered species.

4.2.8.2 Introduction of Species

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
No species have been introduced	GHD did not identify any risk and confirmed that no species have been introduced during the monitoring period.

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
No invasive species discovered	GHD did not identify any risk and confirmed that the Project site is maintained as an industrial site.

4.2.8.3 Ecosystem conversion

Item	Evidence gathering activities and evidence checked
Ecosystem conversion	GHD did not identify any risk and confirmed that the Project site is maintained as an industrial site since 2005.

4.3 Accuracy of Reduction and Removal Calculations

4.3.1 Monitoring Parameters

The following is a list of the monitoring parameters that the Project Proponent monitors and records throughout the crediting period in order to calculate the claimed emission reductions for the specific Monitoring Period. The list also includes key default values that are used within the calculations.

DATA / PARAMETER	Methane content of landfill gas
Data unit	Percent methane content of landfill gas
Description	Methane content of landfill gas
Source of data	SCADA System at Facility
Description of measurement methods and procedures to be applied	Non-dispersive infrared
Frequency of monitoring/recording	Continuous, hourly, daily
Value applied	Methane concentration, % Value varies. During the monitoring period methane value averaged 53% with range of 50% to 56%.
Monitoring equipment	California analytical 602P, Serial # S07002
QA/QC procedures to be applied	Field calibrated once per week. A zero check and value check is performed by comparison with standard certified gas.
Purpose of data	Calculate baseline and emissions reductions
Calculation method:	Used in calculation to obtain heat value of landfill gas in Btu per SCF of landfill gas.
Any comment:	CO ₂ and O ₂ are also continuously monitored using the same instrument.
Conclusion	This parameter was determined to be monitored in a manner consistent with the requirements of the protocol. GHD reviewed the weekly calibration records and found them to be complete.

DATA / PARAMETER	Volume of landfill gas to engines
Data unit	Actual cubic feet per minute
Description	Quantity of landfill gas used to fuel engines
Source of data	SCADA System at Facility

Description of measurement methods and procedures to be applied	Differential pressure measured across orifice plate
Frequency of monitoring/recording	Continuous, hourly, daily
Value applied	Differential pressure value varies. During monitoring period differential pressure value ranged between 7 to 9 inches water gauge that is used to calculate actual cubic feet per minute flow average.
Monitoring equipment	Oripac Model 4150, Serial #30154
QA/QC procedures to be applied	Field calibrated once per month.
Purpose of data	Calculate baseline and emissions reductions.
Calculation method:	Fluid flow equation (Bernoulli) calculates actual cubic feet per minute of landfill gas.
Any comment:	None
Conclusion	This parameter was determined to be monitored in a manner consistent with the requirements of the protocol. GHD reviewed the monthly calibration records and found them to be complete.

DATA / PARAMETER	Temperature of landfill gas to engines
Data unit	Degrees Fahrenheit
Description	Temperature of landfill gas
Source of data	SCADA System at Facility
Description of measurement methods and procedures to be applied	Thermocouple

Frequency of monitoring/recording	Continuous
Value applied	Temperature Value varies. Typical range of temperatures is 109 to 120 degrees F.
Monitoring equipment	Thermocouple, Applied Sensor Technologies (a division of United Electric Controls) Model # 617/923-6966, Style M194 589 UEC 2404, No serial # provided.
QA/QC procedures to be applied	Field calibrated using thermometer
Purpose of data	Calculate baseline and emissions reductions.
Calculation method:	Used in fluid flow equation (Bernoulli) to calculate standard cubic feet per minute from actual cubic feet per minute of landfill gas.
Any comment:	None
Conclusion	This parameter was determined to be monitored in a manner consistent with the requirements of the protocol. GHD reviewed the calibration records and found them to be complete.

DATA / PARAMETER	Pressure of landfill gas to engines
Data unit	PSIG
Description	Pressure of landfill gas
Source of data	SCADA System at Facility
Description of measurement methods and procedures to be applied	Pressure transducer
Frequency of monitoring/recording	Continuous
Value applied	Static pressure Value varies. The typical range of static pressure is 2.0 to 2.4 psig.

Monitoring equipment	Pressure transducer, Ashcroft, Model K17M0242F215#, Serial #: 60803605
QA/QC procedures to be applied	Field calibrated using pressure gauge.
Purpose of data	Calculate baseline and emissions reductions.
Calculation method:	Used in fluid flow equation (Bernoulli) to calculate standard cubic feet per minute from actual cubic feet per minute of landfill gas.
Any comment:	None
Conclusion	This parameter was determined to be monitored in a manner consistent with the requirements of the protocol. GHD reviewed the monthly field calibration records and found them to be complete.

DATA / PARAMETER	Volume of LFG to the flare
Data unit	Standard cubic feet per minute
Description	Quantity of landfill gas combusted in flare
Source of data	Flare station
Description of measurement methods and procedures to be applied	Differential pressure measured across orifice plate
Frequency of monitoring/recording	Continuous, hourly, daily
Value applied	Standard cubic feet per minute Varies periodically. Typically, 0 scfm. Few times that flare operates varies between 300 to 800 scfm.
Monitoring equipment	Omega PDF65 sqrt, Serial #57493
QA/QC procedures to be applied	Field calibrated as required when operating.
Purpose of data	Calculate baseline and emissions reductions.

Calculation method:	Fluid flow equation (Bernoulli) calculates standard cubic feet per minute of LFG.
Data Unit / Parameter	Volume of LFG to the flare
Any comment:	None
Conclusion	This parameter was determined to be monitored in a manner consistent with the requirements of the protocol. GHD reviewed the calibration records and found them to be complete.

DATA / PARAMETER	Fraction of total LFG collected attributable to District Initial System
Data unit	Percentage
Description	Amount of LFG collected from the District Initial System that would have been destroyed in the baseline scenario
Source of data	Well-head measurements
Description of measurement methods and procedures to be applied	Measurements at each well-head using a hand-held instrument
Frequency of monitoring/recording	Once per month
Value applied	4.3% was used in the ex-ante calculation based on data October 1, 2023 through December 31, 2023. See Exhibit 4.
Monitoring equipment	Elkin Earthworks Model 1104M64-06
QA/QC procedures to be applied	Calibrations are conducted prior to each set of measurements and documented.
Purpose of data	Calculation of the baseline emissions
Calculation method:	LFG flows from District Initial System/Total LFG flow from all wells
Any comment:	None

Conclusion	GHD reviewed the calculations and assumptions associated with this parameter and determined them to be reasonable and conservative. Although 4.3 percent was the ex-ante value, the project proponent applied a value of 5%. This was based on the monitoring equipment not being able to conduct a reading on measurements less than 5%. As the measurements all showed less than 5%, it is conservative for the project proponent to apply a 5% assumption for this parameter.
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DATA / PARAMETER	EF EL,Grid,y
Data unit	tonnes CO2/MWh
Description	Emission factor for electricity generation in year y
Source of data	US EPA eGRID data
Description of measurement methods and procedures to be applied	This value converted from the pounds CO2/MWh provided by the US EPA.
Frequency of monitoring/recording	The eGRID data will be reviewed each year to ensure that the most current value is used.
Value applied	0.24 tonnes CO ₂ /MWh
Monitoring equipment	None
QA/QC procedures to be applied	None
Purpose of data	Calculation of project emissions
Calculation method:	536.4 lbs CO ₂ /MWh*0.454545455 kg/lbs*0.001 tonnes/kg = 0.24 tonnes CO ₂ /MWh
Any comment:	None
Conclusion	GHD determined that this parameter is sourced from an reasonable source (US EPA) and is appropriate for use.

DATA / PARAMETER	TDL Grid,y
Data unit	--
Description	Average technical transmission and distribution losses for grid in year y
Source of data	U.S. Energy Information Administration (EIA) State Electricity Profiles. Table 10: Supply and Disposition of Electricity Data for 2023, Table 10. Supply and disposition of electricity United States, 1990 through 2023, November 6, 2024.
Description of measurement methods and procedures to be applied	None
Frequency of monitoring/recording	This data will be reviewed each year to ensure that the most current value is used.
Value applied	0.045
Monitoring equipment	None
QA/QC procedures to be applied	None
Purpose of data	Calculation of project emissions
Calculation method:	None
Data Unit / Parameter	TDL Grid,y
Any comment:	None
Conclusion	GHD identified that the project proponent updated this parameter this monitoring period to a more current source. GHD determined that the update was reasonable and the value is appropriate.

DATA / PARAMETER	EC Grid,y
Data unit	MWh
Description	Amount of grid electricity consumed by the project

Source of data	Bills as shown in Exhibit 5
Description of measurement methods and procedures to be applied	CNBE staff will compile the data.
Frequency of monitoring/recording	Data will be compiled annually.
Value applied	Ex Ante Calculation: 0 MWh/year based on October 1 through December 31, 2023 usage
Monitoring equipment	None
QA/QC procedures to be applied	None
Purpose of data	Calculation of project emissions
Calculation method:	None
Any comment:	None
Conclusion	GHD determined that this parameter was based upon third-party records which is an appropriate approach to monitoring electricity consumed from the grid.

DATA / PARAMETER	FCDiesel,y
Data unit	Gallons/year
Description	Amount of diesel consumed by the emergency generator
Source of data	Run time log as shown in Exhibit 5
Description of measurement methods and procedures to be applied	Plant operator will log the run time of the engine each time it is used
Frequency of monitoring/recording	Data will be compiled annually.

Value applied	Ex Ante Calculation: Based on October 1 – December 31, 2023 usage, the engine ran for 20.3 hours. Using a conservative assumption that the engine operated at $\frac{3}{4}$ load, it was assumed that the engine uses 8.4 gallons of diesel per hour run. (Technical specifications provided to validator. See Parameter in Section 5.1 of PD)
Monitoring equipment	None
QA/QC procedures to be applied	None
Purpose of data	Calculation of project emissions
Calculation method:	The total run time will be multiplied by 8.4 gallons/hour to determine the total amount of diesel consumed in the year.
Any comment:	None.
Conclusion	This parameter was calculated based upon equipment specifications for the on-site engine. GHD reviewed the inputs to the calculation and determined them to be reasonable.

DATA / PARAMETER	NCVdiesel
Data unit	MMBtu / gallon
Description	Energy content of the diesel
Source of data	Draft 2011 US Greenhouse Gas Inventory Report
Description of measurement methods and procedures to be applied	This was converted from the MMBtu/barrel data provided by the USEPA. 5.809 MMBtu/barrel
Frequency of monitoring/recording	Annual
Value applied	0.13831 MMBtu/gallon See Ex-Ante Estimate or Annual Calculation Workbooks for conversion
Monitoring equipment	None
QA/QC procedures to be applied	None

Purpose of data	Calculation of project emissions
Calculation method:	None
Any comment:	Values provided by the EPA will be reviewed annually to ensure this value is the most up to date value available. This value is higher than the range provided by the IPCC in its 2006 Guidelines for National Greenhouse Gas Inventories and is therefore conservative.
Conclusion	GHD determined that this value was a default sourced from the US EPA which is an appropriate source for this parameter.

DATA / PARAMETER	EF CO ₂ ,Diesel,y
Data unit	t CO ₂ /MMBtu
Description	CO ₂ emissions factor for diesel
Source of data	Draft 2011 US Greenhouse Gas Inventory Report
Description of measurement methods and procedures to be applied	This was converted from the Tg C/Qbtu data provided by the US EPA. See ExAnteEstimate or Annual Calculation Workbooks for conversion
Frequency of monitoring/recording	Annual
Value applied	0.073957 t CO ₂ /MMBtu
Monitoring equipment	N/A
QA/QC procedures to be applied	N/A
Purpose of data	Calculation of project emissions
Calculation method:	N/A
Any comment:	Values provided by the EPA will be reviewed annually to ensure this value is the most up to date value available.
Conclusion	This is a standard value sourced from the US EPA and was determined to be appropriate.

DATA / PARAMETER	OXtop_layer
Data unit	Dimensionless
Description	Fraction of methane that would be oxidized in the top layer of the SWDS in the baseline
Source of data	Consistent with how oxidation is accounted for in the methodological tool “Emissions from solid waste disposal”
Description of measurement methods and procedures to be applied	Not applicable – default value defined within the protocol.
Frequency of monitoring/recording	Not applicable – default value defined within the protocol.
Value applied	0.1
Monitoring equipment	Not applicable – default value defined within the protocol.
QA/QC procedures to be applied	Not applicable – default value defined within the protocol.
Purpose of data	Used within the calculation of baseline emissions.
Calculation method:	Not applicable – default value defined within the protocol.
Any comment:	No comment.
Conclusion	This parameter was defined in alignment with the recommendations of the applicable tool. This method was determined to be appropriate.

DATA / PARAMETER	GWpch4
Data unit	T CO ₂ e / t CH ₄
Description	Global warming potential of methane
Source of data	IPCC – Fifth Assessment Report

Description of measurement methods and procedures to be applied	Not applicable – default value defined by the IPCC.
Frequency of monitoring/recording	Not applicable – default value defined by the IPCC.
Value applied	28
Monitoring equipment	Not applicable – default value defined by the IPCC.
QA/QC procedures to be applied	Not applicable – default value defined by the IPCC.
Purpose of data	Used within the calculation of baseline emissions.
Calculation method:	Not applicable – default value defined by the IPCC.
Any comment:	No comment.
Conclusion	This value was updated from previous monitoring periods in alignment with the requirements of the Verified Carbon Standard Version 4.7 (April 16, 2024). GHD determined that this update is reasonable and aligns with program requirements.

DATA / PARAMETER	Methane oxidation efficiency for electricity generation
Data unit	Percent
Description	Quantity of methane oxidized during combustion for electricity generation
Source of data	CDM Methodologies and Tools
Description of measurement methods and procedures to be applied	Not applicable – default value defined within supporting documentation for the protocol.
Frequency of monitoring/recording	Not applicable – default value defined within supporting documentation for the protocol.
Value applied	100

Monitoring equipment	Not applicable – default value defined within supporting documentation for the protocol.
QA/QC procedures to be applied	Not applicable – default value defined within supporting documentation for the protocol.
Purpose of data	Used within the calculation of baseline and emission reductions.
Calculation method:	Not applicable – default value defined within supporting documentation for the protocol.
Any comment:	No comment.
Conclusion	This parameter was sourced from the CDM Methodologies and Tools which was determined to be appropriate.

DATA / PARAMETER	Methane oxidation efficiency for the flare
Data unit	Percent
Description	Quantity of methane oxidized during combustion for the flare
Source of data	40 CFR § 63.670 Requirements for flare control devices
Description of measurement methods and procedures to be applied	Not applicable – default value defined by regulation.
Frequency of monitoring/recording	Not applicable – default value defined by regulation.
Value applied	50
Monitoring equipment	Not applicable – default value defined by regulation.
QA/QC procedures to be applied	Not applicable – default value defined by regulation.
Purpose of data	Used within the calculation of baseline and emission reductions.
Calculation method:	Not applicable – default value defined by regulation.
Any comment:	No comment.

Conclusion	This parameter was determined to be sourced from the above regulation which is appropriate.
DATA / PARAMETER	Fuel use by the Emergency Generator
Data unit	Gallons per hour
Description	Average consumption of a 150kW generator operating at 3/4 load to be used to calculate fuel consumed annually.
Source of data	Diesel Service and Supply Company
Description of measurement methods and procedures to be applied	Not applicable – conservative default value estimated by technology provider.
Frequency of monitoring/recording	Not applicable – conservative default value estimated by technology provider.
Value applied	8.4 gallons per hour
Monitoring equipment	Not applicable – conservative default value estimated by technology provider.
QA/QC procedures to be applied	Not applicable – conservative default value estimated by technology provider.
Purpose of data	Used within the calculation of project emissions.
Calculation method:	Not applicable – conservative default value estimated by technology provider.
Any comment:	No comment.
Conclusion	The value was determined to be conservative as the generator output assumed is greater than what is actually required on-site. This results in an over-estimation of fuel consumption which is inherently conservative.

The GHD Project Team reviewed the monitored parameters and their frequency, equipment used, and description. The GHD Project Team also verified that the monitoring of the above parameters coincides with the Protocol and VCS guidance for the projected emission reductions. The parameters listed above are consistent with the registered VCS PD. The

GHD Project Team also notes that the parameters available at validation detailed in the registered VCS PD have been applied appropriately.

GHD performed a re-calculation of all monitoring parameters and determined that there are no material discrepancies.

4.3.2 Methods for Recording Monitoring Parameters

SCADA System Monitoring

The Project Activity uses their internal SCADA system to record the monitoring parameters listed in Section 4.3.1 where the frequency of collection is continuous. The SCADA system measures and records methane content and gas landfill gas volume to the engines and flare once per minute, and then calculates methane quantities each minute. The results are then accumulated to provide hourly and daily totals in units of million British thermal units on a higher heating value basis [MMBtu (HHV)] and thousand standard cubic feet (KSCF) of LFG. This data is automatically saved from the SCADA system via a Microsoft Excel file that contains a summary of the hourly and daily total landfill gas flows, methane content, heating value and additional information pertaining to the operation and output of each of the four engines. This data is saved at the Project Activity but is also backed up and can be accessed remotely.

GHD reviewed the SCADA system during the Site Inspection on February 19, 2019, during the 2018 Monitoring Period. GHD confirmed that the SCADA system is backed up on Site and externally. GHD verified that the above noted parameters are recorded via the SCADA system along with a significant number of other parameters related to the operation of the Project Activity but not specifically associated with the emission reductions (e.g., blower bearing temperature, engine temperature, and other maintenance related parameters). GHD confirmed that there have been no changes to the SCADA system during the 2023 Monitoring Period. GHD determined that using the SCADA system to record the above noted parameters is appropriate and consistent with the VCS requirements.

Section 4.3 of the Monitoring Report provides further details associated with how and where flow measurement and methane content data is collected. GHD verified that the data associated with these parameters is accurate and consistent with the Monitoring Report and registered VCS PD. Through the review of the Project Proponent's GHG calculation spreadsheet and daily reported data, GHD verified that the data from these parameters is consistent with the data within the Monitoring Report and VCS PD.

Volume of LFG to the Flare

In the Monitoring Report, the Project Proponent has not attributed any LFG flow to the flare (refer to Exhibit 3 of the Monitoring Report). GHD reviewed the provided meter data and determined that LFG was not combusted during the October 1, to December 31, 2023, Monitoring Period. As the flare did not operate during the reporting period, emissions

reductions have not been claimed from flaring.

Methane Content of the Landfill Gas

The methane content of the landfill gas to the engines is measured continuously using a California Analytical nondispersive infrared (NDIR) meter on a continuous basis. The metered results from this monitoring equipment are then aggregated by the SCADA system on an hourly and daily basis. Refer to Exhibit 5 of the Monitoring Report for the associated data. The Project Proponent provided the calibration results to GHD for review during the Monitoring Period. GHD reviewed the calibration results for the NDIR meter and determined they complied during the 2023 Monitoring Period.

District Initial System

The District Initial System (DIS) consisted of the voluntary installation of 21 LFG extraction wells (9 of which remain operational) and a flare to combust the collected LFG and represents the operations of the Project Activity in the baseline scenario. Typically, on a bi-weekly basis (or twice per month), the Project Proponent uses a portable gas analyzer to measure the LFG flow rate from each of the 9 remaining LFG extraction wells associated with the District Initial System. This flow information is used to establish the fraction of flow (%) of LFG to the engines that is attributed to the District Initial System during each monitoring event. The Project Proponent calculated the weighted average fraction of flow that the District Initial System through the Monitoring Report based on the total LFG flow per month. The average fraction of LFG flow (4.3%) was used to calculate the baseline emissions associated with the District Initial System in 2023. GHD notes that during monitoring of the LFG flow at each of the 9 remaining extraction wells, the Project Proponent also monitors the methane, carbon dioxide, oxygen, and balance gas concentrations to normalize the flow of methane to the total flow of LFG to the engines.

4.3.3 Calculation of Emission Reductions

4.3.3.1 Baseline Emissions

To quantify Baseline Emissions for the Project Activity, the following methodology was used:

- UNFCCC CDM “Large scale Consolidated Methodology – Flaring or use of landfill gas”, ACM0001, Version 16.0 dated October 16, 2015 (Methodology)

The calculation methodology was applied to the calculation of emissions from methane contained within LFG which is generated from the decomposition of solid waste from within the landfill and combusted during electricity generation or in a flare.

For this Project Activity the baseline emissions consist of those associated with the volume of LFG that is destroyed in the flare and the engines to generate electricity. Further, the emissions associated with the fraction of LFG related to the District Initial System, need to be subtracted as this system was installed voluntarily as part of the baseline of the Project

Activity. This subtraction of emissions is understood to occur in the baseline of the Project Activity.

The Baseline Emissions also include quantification of the fraction of methane in the LFG that would be oxidized in the top layer of the landfill in the baseline. GHD verified that the Project Proponent has applied the Baseline Emissions calculations appropriately and they are consistent with the VCS PD.

Baseline emissions for the project were quantified using Equation 2 from the methodology. Equation 2 is defined below:

$$BE_{CH_4,y} = ((1 - OX_{top_layer}) \times F_{CH_4,PJ,y} - F_{CH_4,PJ,y}) \times GWP_{CH_4}$$

The inputs for Equation 2 are defined in the protocol as:

$BE_{CH_4,y}$ = Baseline emissions of methane from the SWDS in monitoring period y (tCO₂e/monitoring period)

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

$F_{CH_4,PJ,y}$ = Amount of methane in the LFG which is flared and/or used in the project activity in monitoring period y (tCH₄/monitoring period)

$F_{CH,BL,y}$ = Amount of methane in the LFG that would be flared in the baseline in monitoring period y (tCH₄/monitoring period)

GWP_{CH_4} = Global warming potential of methane (tCO₂e / t methane).

Select inputs for the above Equation 2 were calculated using Equation 3 from the protocol. Equation 3 was used to sum the amount of methane destroyed in the monitoring period and is defined below:

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

The inputs for Equation 3 are defined in the protocol as:

$F_{CH_4,PJ,y}$ = Amount of methane in the LFG which is flared and/or used in the project activity in year y (tCH₄/monitoring period)

$F_{CH_4,flared,y}$ = Amount of methane in the LFG which is destroyed by flaring in monitoring period (tCH₄/monitoring period)

$F_{CH_4,EL,y}$ = Amount of methane in the LFG which is used for electricity generation in monitoring period (tCH₄/monitoring period)

GHD reviewed the Equation and its application by the project proponent and determined that it was appropriately sourced and correctly applied. GHD reviewed the baseline calculations and determined that inputs were correct, the calculation was completed properly, and the baseline emissions were accurately represented. The completed calculations for baseline emissions are included within Section 5.1, Exhibit 1, and Exhibit 2 of the Monitoring Report.

4.3.3.2 Project Emissions

The following methodology and tool were used to quantify Project Emissions:

- UNFCCC CDM “Large scale Consolidated Methodology – Flaring or use of landfill gas”, ACM0001, Version 16.0 dated 16 October 2015.
- UNFCCC CDM “Tool to calculate baseline, project and/or leakage emissions from electricity consumption” (Version 01) 16 March 2008.

The calculation methodology for the project emissions was applied to the calculation of emissions from the following sources:

- Fossil Fuel Emissions – CO₂ – Generated from the combustion of fossil fuels (diesel) in an emergency generator.
- Electricity Consumption Emissions – CO₂ – Generated from the grid consumption of electricity within the Project Boundary.

Specifically, the project proponent has applied Equation 22 from the protocol to quantify project emissions. Equation 22 is defined below:

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

The inputs for Equation 3 are defined in the protocol as:

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)

$PE_{FC,y}$ = Emissions from consumption of fossil fuels due to the project activity, for purpose other than electricity generation in year y (tCO₂/year)

$PE_{DT,y}$ = Emissions from the distribution of compressed/liquefied LFG using trucks in year y (tCO₂/y).

GHD determined that the project proponent omitted reference to $PE_{DT,y}$ from their monitoring report as it was determined to not be relevant as no compressed or liquefied LFG was trucked from the site during the monitoring period.

GHD reviewed the equation and its application by the project proponent and determined that it was appropriately sourced and correctly applied. GHD reviewed the project emission calculations and determined that inputs were correct, the calculation was completed properly, and the project emissions were accurately represented. The completed calculations for project emissions are included within Section 5.2 and Exhibit 4 of the Monitoring Report.

GHD verified that the Project Proponent has applied the Project Emissions calculations appropriately and consistently with the VCS PD GHD identified a minor immaterial discrepancy associated with the calculation of emissions from electricity use which GHD raised as issue number 5 in the issues log. The eGRID Factor from the eGRID 2022 data

should be taken from the CO₂e column. This was determined to not impact the reported emission reduction as there was no electricity consumption by the project during the monitoring period.

4.3.3.3 Leakage

As per the applied methodology (ACM0001): “No leakage effects are accounted for under this methodology.” GHD reviewed the information within Section 5.3 of the Monitoring Report and determined that the project proponent correctly did not include leakage emissions within their calculations, as per the requirements of the protocol, they are not relevant to this project type.

4.3.3.4 Net GHG Emission Reductions or Removals

The net GHG emission reductions are simply calculated by subtracting the project emissions from the baseline emissions. GHD verified that this calculation has been performed appropriately by the Project Proponent for the 2023 monitoring period.

4.3.3.5 Uncertainty Associated with the Calculation of Emissions

GHD identified the following uncertainties associated with the calculation of the Baseline and Project emissions:

- Baseline Emissions - CL# 2 - The Project Proponent did not include reductions from flaring as the flare had very limited operation during the monitoring period (22 hours) between November 8 – 9. GHD determined this was a conservative approach and no changes were made to the GHG assertion. This finding was raised during the previous verification period and re-addressed during the current verification.
- Project Emissions - CAR# 7- There was an error in a calculation that supported the project emissions. Specifically, the emissions from electricity consumption were calculated using the wrong factor. However, this did not impact the reported emissions as there was no electricity consumption reported.

4.3.3.6 Documentation

The Project Proponent provided a calculation spreadsheet to support applicable calculations. Additional documentation and information were provided by the Project Proponent to support the values used in the calculation spreadsheet.

4.3.3.7 Default Values

GHD reviewed the appropriateness of the default values applied by the Project Proponent and determined that the default values applied were appropriate.

4.3.3.8 Reporting Period Comparison

Previous reporting period emissions/credits were compared to current reporting period emissions/credits. GHD compared the offset credits from the previous reporting periods to the current reporting period. Any changes over 5% were identified and the reasons for the changes were investigated. GHD identified the following changes from the previous monitoring period for the Project Activity:

- 4.5 % decrease in baseline emissions
- 0 % increase in electricity consumption emissions
- 65.87 % decrease in fossil fuel consumption emissions

While the 2022 monitoring period was from July – December 2022 and the 2023 monitoring period was from October – December, the fossil fuel consumption for the 2022 monitoring period was halved to allow for comparison to the 2023 monitoring period. Fossil fuel consumption decreased from 5.11 tonnes of CO₂ in the 2022 monitoring period to 1.74 tonnes of CO₂ in the 2023 monitoring period. This resulted in a 65.87% decrease in fossil fuel consumption due to a decrease in the number of hours the emergency generator was run in the second half of the 2022 monitoring period (59.5 hours) compared to the 2023 monitoring period (20.3 hours). The monitoring period changes in emissions were explained and justified.

4.3.3.9 Summary of Errors, Omissions, Misstatements or Non-Compliances Identified

Quantitative materiality for GHG emissions reductions for this verification was set at plus or minus 5 percent of the total reported emissions reductions. The quantitative aggregated magnitude of offset errors, omissions, and misstatements for the 2023 Monitoring Report is 0.001 percent, which is less than the materiality threshold of 5 percent.

Materiality was also assessed on a qualitative level, including conformance with the applicable Program and Protocol requirements. The Project Proponent did not request any deviations and GHD did not identify any qualitative non-conformance with the Program or Protocol.

4.3.3.10 Corrections Made to Monitoring Report

The Project Proponent decided not to make changes to the 2023 Monitoring Report based on the issues identified in the Verification Findings.

4.3.3.11 Follow up on Issues from Previous Verification

GHD has reviewed the issues from the previous Monitoring Report and Verification Report and determined that none of the previous issues required follow-up during the current verification.

4.4 Quality of Evidence to Determine GHG Reductions and Removals

GHD reviewed the quality of the evidence provided during the verification and requested

additional evidence as required to further support the determination of emission reductions. Refer to Appendix B for additional details.

Through a review of each of the different sources of evidence provided by the Project Proponent, GHD was able to verify that the evidence clearly and transparently conveys the data generation, aggregation, recording, calculation, and final transposition into the 2023 Monitoring Report. The information is clearly conveyed by the Project Proponent from the metering through to the SCADA system, and the calculation spreadsheet. The instrument calibration documentation, 2023 Monitoring Report, raw data, and permitting documentation support the transparency and quality of the information provided by the Project Proponent.

4.4.1 Data Management

The SCADA system generates a Microsoft Excel file that includes the hourly and daily totals for landfill gas flow, heat value, methane content, operating hours for each engine, and both gross and net power output for the facility. This file is produced daily at midnight, reflecting data from the previous 24-hour period. The file is automatically saved on the SCADA system computer and can be accessed both remotely and on-site. It is completely copied and pasted into the monthly quantification Excel spreadsheet without any individual data being manually entered. Backups of the files are maintained both at the facility and off-site.

Operator records, including the facility operation logs, maintenance logs, and manually recorded data logs, are kept on-site. These records also include a log that tracks the runtime of the emergency generator.

4.5 Non-Permanence Risk Analysis

The Project Activity is not an Agriculture, Forestry, and Other Land Use (AFOLU) project; therefore, a non-permanence risk analysis is not required.

5 VERIFICATION OPINION

5.1 Verification Summary

GHD has prepared this Verification Report for the Project Proponent and Program. The Project Proponent was responsible for the preparation and fair presentation of the Monitoring Report dated 3 September 2024 for the VCS in accordance with the Program criteria and engaging with a qualified third-party verifier to verify the Monitoring Report. Project GHG-related activity is detailed in Section 1.2.3.

GHD's objective and responsibility was to provide an opinion regarding whether the 2023 Monitoring Report for the Project Activity was free of material misstatement and that the

information reported is a fair and accurate representation of the operations for the reporting period, and accurate and consistent with the requirements of the Program.

The criteria used by GHD for the verification of the Monitoring Report is detailed in Section 1.2.2. GHD completed the verification of the Monitoring Report in accordance with ISO 14064-3:2019. GHD completed the verification to a reasonable level of assurance.

The Project Activity resulted in a reduction of GHG emissions that are relevant, complete, consistent, accurate, transparent and conservative. Furthermore, the emission reductions generated by the Project Activity serve to contribute to sustainable development and will result in long term benefits to the mitigation of climate change.

5.1.1 Limitation of Liability

Because of the inherent limitations in any internal control structure, it is possible that fraud, error, or non-compliance with laws and regulations may occur and not be detected. Further, the verification was not designed to detect all weakness or errors in internal controls so far as they relate to the requirements set out above as the verification has not been performed continuously throughout the period and the procedures performed on the relevant internal controls were on a test basis. Any projection of the evaluation of control procedures to future periods is subject to the risk that the procedures may become inadequate because of changes in conditions, or that the degree of compliance with them may deteriorate.

This verification was based on a risk-based approach that follows rigorous methodology with the expectation that it will capture the majority of errors with the potential for a material misstatement. However, GHD does not warrant or guarantee that all errors or omissions, including material issues, made by Project Proponent in its Report and/or assertion were identified by GHD.

The verification opinion expressed in this report has been formed on the above basis.

GHD's review of the 2023 Monitoring Report included only the information discussed above. While the review included observation of the systems used for determination of the 2023 Monitoring Report, GHD did not conduct any direct field measurements and has relied on the primary measurement data and records provided by Project Proponent as being reliable and accurate. No other information was provided to GHD or incorporated into this review. GHD assumes no responsibility or liability for the information with which it has been provided by others.

The information and opinions rendered in this report are exclusively for use by Project Proponent. GHD will not distribute or publish this report without Project Proponent's consent except as required by law or court order. The information and opinions expressed in this report are given in response to a limited assignment and should only be evaluated and implemented in connection with that assignment. GHD accepts responsibility for the competent performance of its duties in executing the assignment and preparing this report in accordance with the normal standards of the profession but disclaims any responsibility for consequential damages.

5.2 Verification Conclusion

Project Proponent reported 32,419 tonnes CO₂e as the total emissions reductions for the 2023 monitoring period for the Project Activity. This includes the GHG emissions reductions resulting from the Project Activity from 1 October to 31 December 2023. The quantitative aggregated magnitude of errors, omissions, and misstatements is discussed in 4.3.3.9.

Based on the verification procedures undertaken to a reasonable level of assurance, it is GHD's opinion that the Monitoring Report is materially correct and is a fair and accurate representation of the Project Activity's total attributable emissions reductions for the reporting period; and that the Monitoring Report was prepared, and emissions reductions were quantified in accordance with the Program. As a result, GHD is issuing a Positive Verification Opinion regarding this Project Activity and will therefore be approving the Project Activity for registration with the VCS with no limitations or qualifications.

This Opinion is effective as of the date of this Verification Report.

The Verification Deed of Representation is provided in Appendix D.

Provided below is a summary of the emissions reductions:

Verification period: From 01 October 2023 to 31 December 2023

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's (tCO ₂ e)	Removal VCU's (tCO ₂ e)	Total VCU's (tCO ₂ e)
01-Oct-2023 to 31-Dec-2023	33,419	2	0	32,419	0	32,417
Total	32,419	2	0	32,419	0	32,417

5.3 Ex-ante vs Ex-post ERR Comparison

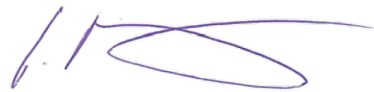
Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-Oct-2023 to 31-Dec-2023	22,109	32,417	47%	More actual LFG quantities than estimated to calculate ex-ante estimated reductions. VERRA Standard updated the 100-year global warming potential (GWP) of methane from the IPCC Second Assessment value of 21 to IPCC Fifth Assessment Report value of 28, which represents a 33% increase. Validation allowed GWP of methane to change in accordance with changes in VERRA Standard.
Total	22,109	32,417	47%	

Should you have any questions on the above, please do not hesitate to contact us.

Regards



Ben Gerber
Lead Verifier
519 340-4354
Ben.gerber@ghd.com



Gordon Reusing
Independent Reviewer
519 340-4231
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Encl.

Copy to: Angela Kutempero

APPENDIX A

Our ref: 12649241-LTR-1

September 13, 2024

Thomas Yeransian
CommonWealth Resource Management
1 Bornheimer Place
Scarborough, Maine
04074

Verification Plan

2023 Monitoring Report for Greater New Bedford LFG Utilization Project (VCS ID: 138), CommonWealth Resource Management, Maine, United States of America under the Verra: Verified Carbon Standard

Dear Thomas Yeransian,

1. Introduction

CommonWealth Resource Management (Client) retained GHD Services Inc (GHD) to undertake a verification of the Greater New Bedford Landfill Gas (LFG) Utilization Project (Project) for October, 1, 2023 – December, 31, 2023 monitoring period. The Project is located in New Bedford, Massachusetts and follows the requirements of the Verra: Verified Carbon Standard (VCS) voluntary offset program (Program). The Project is listed under the VCS ID: 138.

The Program requires verification of the Monitoring Report for the Project monitoring period(s) by an independent third-party accredited under *ISO 14065 Greenhouse Gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition* (ISO 14065). GHD Limited is accredited by the ANSI National Accreditation Board (ANAB) under ISO 14065 as a greenhouse gas validation and verification body (VVB). The verification of this Project falls under VCS project-level sectoral scope 1 – Energy industries (renewable/non-renewable sources) and Sectoral Scope 13 – Waste handling and disposal, consistent with the applicable Methodology. GHD is accredited for this type of work by ANAB under ISO 14065 as a greenhouse gas validation and verification body.

GHD has prepared this Verification Plan in accordance with ISO Standard *ISO 14064 Greenhouse gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions* (ISO 14064-3:2019) and with the Program requirements.

2. Verification Objective

The objective of the verification is to provide Client and the Program with an opinion on whether the Project Monitoring Report (Report) for the monitoring period is free of material misstatements and that the information reported is accurate and consistent with the requirements of the Program.

GHD is responsible for reviewing the Monitoring Report including accompanying materials, the previous Validation Report, and the VCS Project Description (PD) including the Monitoring Report, baseline assessment, and any supporting documentation.

Per the VCS VVM (Validation and Verification Manual), during verification VVBs must evaluate the Monitoring Report and assess the following:

- The extent to which methods and procedures, including monitoring procedures, have been implemented in accordance with the validated PD. This includes ensuring conformance with the monitoring plan.
- The extent to which GHG emission reductions and removals reported in the Monitoring Report are materially accurate.

3. Level of Assurance

The verification will be conducted at a reasonable level of assurance.

Reasonable assurance is a high but not absolute level of assurance. Reasonable assurance provides a high level of confidence to intended users of verification opinions that the stated information is accurate and complete. If a verification opinion can be provided, it will be worded in a manner similar to "Based on our verification, the GHG emissions assertion is, in all material aspects, in accordance with the approved quantification methodologies."

4. Verification Standards

For the verification, GHD will apply ISO 14064-3:2019 and the Program verification standards.

5. Verification Criteria

GHD will apply the following verification criteria:

- ISO 14064 Greenhouse gases Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements, ISO, April 2019 (ISO 14064-2)
- ISO 14064 Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions, ISO, April 2019 (ISO 14064-3)
- International Accreditation Forum Mandatory Document for the Use of Information and Communication Technology for Auditing/Assessment Purposes: Issue 2, July 2018 (IAF MD 4: 2018)
- VCS Program Guide, Version 4.3, dated 17 January 2023 (VCS Program Guide)
- VCS Standard, Version 4.5, dated 4 October 2023 (VCS Standard)
- VCS Validation and Verification Manual, Version 3.2, dated 19 October 2016 (VCS VVM)
- UNFCCC CDM Methodology ACM0001 "Large-scale Consolidated Methodology – Flaring or use of landfill gas", Version 16.0, dated October 16, 2015 (Methodology)

6. Verification Team and Independent Reviewer

6.1 Roles, Responsibilities & Qualifications

Lead Verifier/Technical Expert	
Name	Ben Gerber, MCC
Role	The lead verifier will lead the verification and is responsible for development of the verification plan. The lead verifier will review the risk assessment and evidence gathering plan, recalculation of raw data, data management and draft findings. The lead verifier will prepare and sign the verification statement and verification report.
Qualifications	Ben Gerber holds a Master of Climate Change degree from the University of Waterloo. Ben has been a verifier since 2018, completing various GHG assurance work in numerous jurisdictions throughout North America including Ontario, Alberta, California and other voluntary markets. Ben has experience conducting GHG assurance work for a variety of industrial sectors including iron and steel production, electricity generation, manufacturing, petroleum importation, ethanol production and food production. Ben has also conducted offset verifications and validations under the Climate Action Reserve, Verra (VCS), and the American Carbon Registry. In addition to GHG assurance services, Ben has been a technical expert on project teams providing advisory services to Canadian provinces preparing to develop provincial offset programs. This work involved analysis of the various carbon offset programs and regulations in place throughout North America and the provision of recommendations related primarily to offset protocol applicability and program feature design.

Verifier	
Name	Angela Kuttemperoor, B. Eng.
Role	The verifier will develop and revise the verification plan and evidence gathering plan, develop a risk assessment, recalculate raw data, review management of data, and prepare draft findings and the draft verification report.
Qualifications	Angela is an Air Engineer-In-Training with GHD's Greenhouse Gas Assurances Services Team and has retained 1.5 years of experience in greenhouse gas verification work. Angela is a Bachelor of Environmental Engineering graduate (co-op) from the University of Guelph, located in Guelph, Ontario. Angela has involved in numerous verifications for the Ontario greenhouse gas reporting program under Ontario regulation 390/18, and the Federal OBPS program, for a wide variety of sectors. Angela has involved in carbon offset project verifications for sites located within the United States and regulated under various voluntary offset credit programs including the Climate Action Reserve (CAR), Verra: Verified Carbon Standard (VCS) and The Climate Registry (TCR). Angela has experience with verifications for ODS offset projects regulated by the California Air Resources Board (ARB).

Independent Reviewer/Technical Expert	
Name	Gordon Reusing, M.Sc., P.Eng.
Role	The independent reviewer will conduct an independent review of the risk assessment, evidence gathering plan, working papers, verification plan, verification report, and findings. The independent reviewer will approve the issuance of the opinion.
Qualifications	Gordon is a greenhouse gas (GHG) Lead Verifier, Lead Validator, and Peer Reviewer with extensive experience including GHG programmes in Alberta, British Columbia, Ontario, Quebec, Nova Scotia, California, and programmes operated by the United Nations Framework Convention on Climate Change (UNFCCC) Clean Development

Independent Reviewer/Technical Expert	
	Mechanism (CDM), The Gold Standard, The Climate Registry (TCR), the Carbon Disclosure Project (CDP), and Verra: Verified Carbon Standard (VCS). Gordon has completed numerous GHG quantification studies for the oil and gas sector, including upstream, midstream, and downstream facilities. Gordon has conducted GHG verifications as a Lead Verifier, Technical Expert and Peer Reviewer in many jurisdictions, including, but not limited to, the Alberta Carbon Competitiveness Incentive Regulation (CCIR), Ontario Regulations, British Columbia Greenhouse Gas Reduction (Cap and Trade) Act, (B.C. Reg. 272/2009), and Quebec Regulation R.Q.c.Q 2, r.15 (Quebec Regulation).

7. Project Description

The Project Activity (VCS ID:138) is located at the Crapo Hill Landfill in New Bedford, Massachusetts (Landfill, Facility, or Site). The Project Activity consists of the landfill gas (LFG) collection system and four (4) combustion engines, designed to capture, and combust methane generated within the Landfill. A back-up landfill flare is also connected to the LFG collection system to combust LFG, as needed, when the engines are not operational. The original baseline scenario of the Project Activity consists of the voluntary installation of twenty-one (21) vertical LFG extraction wells and a flare to combust the collected LFG.

This Project Activity falls under Sectoral Scope 1 – Energy industries (renewable/non-renewable sources) and Sectoral Scope 13 – Waste handling and disposal, for which GHD is accredited. GHD understands for the purposes of this verification, that all correspondence with respect to this Project Activity is with CRMC of which CNBE is a subsidiary, unless otherwise noted.

The verification activities will be completed pursuant to the most up-to-date related rules, requirements, regulations, modalities, criteria, guidelines, emission reductions yield, and principles in relation to the PD supplied by the Project Proponent. The Project Activity utilized the UNFCCC CDM methodology ACM0001: Large-scale Consolidated Methodology – Flaring or use of landfill gas”, Version 16.0, dated October 16, 2015. This methodology has been accepted for use by the VCS as part of the validation of the second crediting period for the project that began on March 29, 2016, and ends on March 28, 2026.

7.1 Client Contact

Thomas Yeransian is GHD's Client contact for this verification.

8. Verification Scope

The following sections describe the scope of the verification.

8.1 Project Boundary

The Project is broken down into the following greenhouse gas Sources, Sinks and Reservoirs (SSRs) to be included or excluded, as defined in the Program's Protocol:

- Baseline Emissions
 - Methane from the SWDS
 - Fraction of methane that would be oxidized in the top layer of the SWDS in the baseline.
 - Amount of methane in the LFG destroyed within the project.

- Project Emissions
 - Emissions from the combustion of electricity
 - Emissions from the combustion of fossil fuels

8.2 Geographical and Operational Boundaries

The verification will include the SSRs from the Project located at the following address:

Crapo Hill Landfill
300 Samuel Barnet Boulevard
Dartmouth, Massachusetts
United States

Grid coordinates:

Latitude: 41°43' 28.12" N
Longitude: 70° 59' 04.82".

8.3 Monitoring and Crediting Period

The start date for the Project is January 01, 2022. The crediting period is from March 29, 2016, to March 28, 2026.

The monitoring period for this verification for the Project is from October, 01, 2023 to December, 31, 2023.

8.4 Use of this Report

The verification report will be prepared for the use of the Client and the Program.

References from GHD's Verification Report must use the language in which the opinion was issued and reference the date of issuance of GHD's Verification Report, the applicable verification period and the associated program for which the verification was conducted. The GHG assertion provided by GHD can be freely used by Client for marketing or other purposes other than in a manner misleading to the reader. The GHD mark shall not be used by Client in any way that might mislead the reader about the verification status of the organization. The GHD mark can only be used with the expressed consent of GHD and then, only in relation to the specific time period verified by GHD.

8.5 Use of Information and Communication Technology

As part of the verification process, GHD may utilize information and communication technology (ICT) in accordance with IAF Mandatory Document for the use of Information and Communication Technology for Auditing/Assessment Purposes (IAF MD 4:2018) for various aspects of the verification, including conducting video/tele-conferencing with various personnel up to full virtual site visits.

The decision to use ICT is permissible if GHD and Client agree on using ICT. The agreed ICT method will be MS Teams, Skype, Zoom, Google Meet, or Webex. By accepting GHD's proposal, Client agreed to the use of the afore mentioned ICT methods and their associated information security, data protection and confidentiality measures. Any other ICT method(s) will be agreed to in writing (email) between GHD and Client prior to use. The parties will not agree to the use of an ICT method which either party does not have the necessary infrastructure to support. Throughout the entire verification process, including use of ICT, GHD will abide by the confidentiality procedures.

9. Site Visits

9.1 Site Visit Requirements

As per the Program requirements, an in-person site visit is required during the initial verification and then as required during subsequent verifications. During the verification of the 2017 crediting period, GHD conducted a physical site visit at the Project site. Based on current knowledge of Project operations, GHD is of the opinion that an in-person site visit will not be required for the verification of the 2023 crediting period as there have not been material changes to the project operation. If GHD determines that an in-person site visit is required during the verification, GHD will notify Client and provide a revised scope of work.

10. Verification Schedule

The following presents a draft verification schedule. The overall verification process is expected to take approximately six weeks.

- Submit Verification Plan to Client – Week 1
- Telephone Conference Interview – Week 1
- Data checks and recalculations of Monitoring Report – Week 2
- Review of data management, document retention and record keeping program – Week 3
- Submit issues log to Client and opportunity for Client to address issues and, if required, resubmit Monitoring Report – Week 4
- Independent review by Independent Reviewer – Week 5
- Issue Draft Verification Report and Opinion – Week 6
- Issue Final Verification Report and Opinion * – Week 6

* Project Proponent is responsible for submission of project documents to Verra to complete registration and/or issuance request

11. Strategic Analysis

To understand the activities and complexity of the Project, and to determine the nature and extent of the verification activities, GHD has completed a strategic analysis. The strategic analysis involves consideration of the details of the Project Site and its operations, the Monitoring Report and its preparation, and the verification requirements per the Program. The information considered in the strategic analysis is documented in GHD's working papers and was used to inform the assessment of risks and the development of an evidence gathering plan.

12. Assessment of Risk and Magnitude of Potential Errors, Omissions or Misrepresentations

GHD conducted an assessment of the risk and magnitude of potential errors, omissions or misrepresentations associated with the Monitoring Report statement/assertion. GHD then identified areas where qualitative or quantitative errors could occur and assigned risks to the areas. The inherent and control risks were evaluated,

and detection risks were established. The risks were identified as high, medium and low. The risk assessment was a key input to developing an effective evidence gathering plan.

13. Evidence-Gathering Plan

GHD has developed an Evidence Gathering Plan (EGP) for internal use based on review of the objectives, criteria, scope, and level of assurance detailed above, along with consideration of the strategic analysis and assessment of risks. The EGP is designed to lower the verification risk to an acceptable level and specifies the evidence (data and information) that will be reviewed as part of the verification in the evidence gathering activities. The EGP was reviewed and approved by the Lead Verifier prior to issuing this verification plan. The EGP is dynamic and will be revised, as required, throughout the course of the verification. Any modifications to the EGP will be reviewed and approved by the Lead Verifier, with the final EGP to be completed prior to issuing the final verification report and opinion.

14. Quantitative Testing

Quantitative data or raw data will be made available to GHD. GHD will use the data to recalculate and check the GHG emissions reductions calculations and assess the methodologies that were used in the development of the Monitoring Report.

15. Materiality Level

Based on the reported emission reductions (i.e. less than 300,000 tonnes of carbon dioxide equivalent [tCO₂e]), the Project Activity is classified as a project, therefore the materiality will be set at five (5) percent. In addition, a series of discrete errors, omissions, or misrepresentations of individual or a series of qualitative factors, when aggregated, may be considered material.

Materiality will also be assessed on a qualitative level, including conformance with the applicable Program and Protocol requirements. Non-conformance with Program requirements may be considered a material error.

16. Verification Methodology

The following provides a general overview of the verification methodology that will be conducted.

Conflict of Interest (COI) and Independence

GHD has undergone a thorough evaluation for conflict of interest (COI) and independence for this verification work. This included a review of other potential work conducted by GHD for Client and Project listed in the scope of work. We have confirmed that this verification work can be successfully completed without undue risk of impartiality and conflict of interest. We have assessed the following key aspects:

- Verification evaluation
- Team evaluation

GHD has rigorous COI and verifier competency evaluation procedures that are followed for every verification project. Our documented procedures ensure that all COI and independence criteria are properly evaluated. GHD's COI program ensures that both the company and the Project Team have no potential COIs.

GHD has also evaluated and approved our Verification Team's competencies. GHD sets competency requirements in terms of education, verification experience, and experience in the sector. GHD can attest that we have highly qualified staff with the appropriate technical expertise for the verification work.

Kick-Off Call

Upon award of the contract, GHD will conduct a kick-off call between Client and the GHD project team to review the verification process and objectives, Project operations, project schedule, site visit schedule and information requests.

Risk-Based Approach

The GHD Project Team will use a risk-based assurance approach to focus and to determine the detailed scope of the verification.

The key risks associated with the GHG emission estimates are the elements that are critical for ensuring that an inventory is free of material misstatements:

- Based on the information provided in the Monitoring Report, the GHD Project Team will identify the key risks associated with the assumptions and claims made, and the data sources used.
- The completeness, conservativeness, and accuracy of the underlying evidence for the assumptions/claims made, and data sources used, will be reviewed. Assumptions/claims and data sources that are well identified and discussed in the report, that are substantiated with information from reliable references, and which are sufficiently controlled through the QA/QC plan should thus be given less emphasis because of a lower level of risk.
- The results of this investigation shall then, together with the results of the review of other areas, give the necessary input for the verification opinion.

Risks can be classified in risk categories (e.g., High, Moderate, and Low). A risk may be high, moderate or low depending on the issue's potential to cause a misstatement of the emissions. In addition, a non-compliance with Regulation can form a high-risk situation.

GHD has extensive experience in risk assessments. The classification of risk as high, moderate or low is largely subjective and will require the GHD Project Team's expert judgement. The designated GHD Lead Verifier has a thorough understanding of the risks and uncertainties applicable to the assignment.

If an issue is classified as high risk, appropriate Project staff shall clarify the situation, explain how the risk is reduced, and provide more information.

Documentation Review and Emissions Reductions Recalculations

GHD will review the information provided for the Project and will conduct recalculations of the baseline, project emissions and emissions reductions. GHD will assess the quantitative discrepancy based on the recalculations and determine whether there are any material issues.

The components of the document review and follow-up interviews are detailed below.

- Document Reviews:
 - Review of data and information to confirm the correctness and completeness of presented information
 - Cross-checks between information provided in the Monitoring Report and information from independent background investigations
 - Determine sensitivity and magnitude analysis for parameters that may be the largest sources of error

- Comparison of reported emissions and emissions reductions with previous reporting period(s)
- Follow-up Interviews:
 - Via telephone
 - Via email

The document review shall establish to what degree the presented Monitoring Report documentation meets the verification standards and criteria.

The GHD Project Team will interview Project staff in order to:

- Crosscheck information provided.
- Review data management and recording procedures
- Test the correctness of critical formulae and calculations

GHD will complete data checks from the data source(s) (meter, scale, etc.) through the plant data management system to the Monitoring Report. A sample of raw data will be collected for recalculation. Should errors or anomalies be identified that could lead to a material misstatement, GHD will request further raw data samples to assess the pervasiveness of the errors or anomalies. GHD will identify the source and magnitude of data or methodology errors or anomalies but, as a verification body, GHD cannot provide solutions to issues identified.

Issues Communications

During the course of the document review and interviews, questions and clarifications may be identified by the Project Team; these will be communicated with Client either verbally, by email, or in an Issues Log. Client and/or Project staff will have an opportunity to respond to identified issues prior to the completion of GHD's draft and final verification reports. Material issues identified by GHD must be corrected by Client. It is expected that Client and/or Project Owner will respond promptly to issues raised by GHD. Extensive correspondence to address issues that require additional effort from GHD may result in extra costs to the verification and will be discussed with Client.

The verification conclusion will be based on the interaction of the VCS Program principles as follows:

1. Relevance
2. Completeness
3. Consistency
4. Accuracy
5. Transparency
6. Conservativeness

If during the verification of the Project Activity, the Verification Team identifies findings that need to be addressed to confirm that the Project Activity meets the VCS requirements, the Lead Verifier will issue a CAR, CL, and/or a FAR, as appropriate, to the Client via a findings assessment. Iterations of these requests will continue until such a time as the Lead Verifier can adequately resolve or "close out" the identified CAR(s), CL(s), and/or FAR(s), as applicable.

Each of these procedures is discussed in further detail below.

Corrective Action Request (CAR)

A CAR is issued during a verification if the VVB has identified a material discrepancy or non-conformance that the Client must address. More specifically, the CDM provides a standard that the VVB can use for the issuance of CARs, as detailed below, based on Section 9.1.3.2 of the CDM Validation and Verification Standard:

- Non-compliance with the registered monitoring plan, the applied methodologies, the applied standardized baselines or the other applied methodological regulatory documents is found in monitoring and reporting and has not been sufficiently documented by the Project Participant(s), or if the evidence provided to prove conformity is insufficient.
- Modifications to the implementation, operation, and monitoring of the registered CDM project activity has not been sufficiently documented by the Project Participant(s).
- Mistakes have been made in applying assumptions, data or calculations of GHG emission reductions or net anthropogenic GHG removals that will impact the quantity of emission reductions or removals.
- Issues identified in a FAR during the validation to be verified during the verification or the previous verification(s) have not been resolved by the Project Participant(s).

The above issues could result in the expected emission reductions not being realized.

The Lead Verifier will resolve or “close out” CARs only if the Client modifies the Monitoring Report or provides adequate additional explanations or evidence that satisfies the Verification Team’s concerns and the VCS requirements. GHD is unable to issue a Verification Representation prior to the resolution of all CARs. The Verification Team reports on all CARs in the findings assessment and Verification Report.

Clarification Request (CL)

In general, a CL is a request for additional clarification made by the Verification Team to the Client when the Project Activity reporting, lacks transparency, is unclear, and further information is needed to determine whether the applicable requirements are met.

The Lead Verifier will resolve or “close out” CLs only if the Client provides adequate additional explanations or evidence that satisfies the Verification Team’s concerns and the VCS requirements.

Forward Action Request (FAR)

A FAR is a request made during the validation to “identify issues related to project implementation that require review during the first verification of the proposed CDM project activity.”

The Lead Verifier will address any FAR(s) raised from the validation during the verification, as required. In addition, FAR(s) may also require review in subsequent verifications. The Verification Team will report on all FARs in the findings assessment and Verification Report.

Independent Review

GHD will conduct an independent review of the verification, which will include a review of findings, emission calculations and opinion developed by the verification team.

Documentation and Deliverables

GHD will prepare the following deliverables to document the verification services provided:

- COI document, if required by the Program
- Statement of Qualification (included in this proposal)
- Verification Plan (prior to site visit and after receiving relevant information)

- Draft Verification Report
- Final Verification Report
- Verification Opinion (included in Verification Report and/or using Program template)

Support of Verification Report Findings

GHD will support and uphold the findings of the verification if the report is subject to an audit by the Program. If the Program requires follow-up information that is determined to be significant in nature or outside of the original scope of work, GHD may require additional budget to cover the response(s).

16.1 Verification Activities

The following sections outline the activities that may be included in GHD's verification process.

Information/Records to be Reviewed

Information/records to be reviewed by GHD include the following:

- Monitoring Report
- GHG Assertion
- Operational and control procedures and records for ensuring GHG data quality
- Documentation of GHG Sources, Sinks and Reservoirs
- Documentation of quantification methodology
- Documentation of monitoring and measurement systems

Data Assessment and Management Systems

GHD will review data assessment and management system documentation that describes the process of data collection, entry, calculation and management. GHD will review the following:

- Selection and management of GHG data and information
- Processes for collecting, processing, aggregating, and reporting
- Systems and processes to ensure accuracy
- Design and maintenance of the GHG data management system, including systems and processes that support it

GHD will assess the effectiveness of the data assessment and management system and determine areas of risk.

Collection of Evidence

GHD will collect physical, documentary, and testimonial evidence to verify the Project.

Error Checking/Testing

GHD will independently calculate the final emission reductions using Client's raw data to ensure that the correct methodology and raw data was used.

During the verification process, GHD will consider both quantitative and qualitative information on emission reductions. Quantitative data is comprised of the Monitoring Report and supporting data. Qualitative data is comprised of information on internal management controls, calculation and transfer procedures, frequency of emissions reports, and review and internal audit of calculations/data transfers.

17. Closure

The Verification Plan is considered to be a dynamic document that may require modification and adaptation to project conditions as encountered during the completion of the verification process.

All of Which is Respectfully Submitted,

GHD

A handwritten signature in black ink, appearing to read 'Ben Gerber', with a stylized flourish at the end.

Ben Gerber
Lead Verifier

519 340-4354
Ben.Gerber@ghd.com

Copy to: Gordon Reusing, GHD

APPENDIX B

Log

CLOSED
12/11/2024

Project Number
Program-Specific Project ID
Client
Facility Name
Regulation / Program
Reporting Year

Exported Copy

12649241
138
CommonWealth New Bedford Energy, LLC (CNBE)
Utilization
Verra: VCS
2023-10-01 to 2023-12-31

Clarification Requests (CL) / Corrective Action Requests (CAR) / Forward Action Requests (FAR)	Issues / Questions	Explanation/Response	Status
CL	Have there been any changes to the site since the previous Monitoring Period that impact the operations of the project?	No.	Closed
CL	Can you confirm that the flare did not run during the monitoring period? If so, can you please describe why.	As shown in Exhibit 5, Page 61, the flare ran 22 hours during November 8 - 9 due to an Eversource utility outage. The quantity of methane destroyed by the flare is not being claimed for carbon credits.	Closed
CL	Can you please provide the calibration records for the NDIR meter?	Calibration records for the California Analytical Analyzer using NDIR are provided in Exhibit 6, pages 77 - 79.	Closed
CL	Can you please confirm that no changes to stakeholder make-up have occurred since the previous verification?	Confirmed. No changes to stakeholder make-up have occurred since the previous verification.	Closed
CL	What mechanisms do you have in place to receive grievances from stakeholders?	The Greater New Bedford Regional Refuse Management District (District) has an odor hotline to receive reports from the public. Commonwealth New Bedford Energy LLC is in contact with the District each work day.	Closed
CL	Do you have any policies that cover the items listed within Section 2.3 of the Monitoring Report? If not, please confirm how these items are addressed.	CNBE complies with the all applicable government laws, and rules, as well as permits issued and contracts entered into.	Closed
CAR	The Monitoring Report references the CO ₂ eGRID factor rather than the CO ₂ e factor. However, as no electricity consumption is reported, this does not impact the reported	You are correct. eGRID factor is changed to read tonnes CO ₂ e/MWh. The number presented the Monitoring Report equals CO ₂ e/MWh.	Closed
CAR	Please ensure all instructions in the Monitoring Report have been deleted.	Found no instructions in submitted Monitoring Report.	Closed
CAR	Please populate the fields within the first table of Section 2.4.2 of the Monitoring Report. As noted in the template instructions, each field must be populated and must not only be noted as "not applicable".	Done.	Closed
CAR	For Table 2.1.4, 2.1.5 and 2.2.2 of the monitoring report all the fields containing "none" should be populated with further explanation.	Done.	Closed

APPENDIX C

VCS VERIFICATION DEED OF REPRESENTATION

BY

GHD SERVICES INC

GREATER NEW BEDFORD LFG UTILIZATION PROJECT

VCS ID 138

THIS DEED OF REPRESENTATION is made on December 11, 2024¹

BY

GHD Services, Inc., gordon.reusing@ghd.com, 455 Phillip Street, Waterloo, Ontario N2L 3X2, Canada (as **VVB**)

THIS DEED WITNESSES as follows:

1. **INTERPRETATION**

1.1 In this Deed:

"Accountholder" means the holder of an account in the Verra Registry;

"AFOLU" means agriculture, forestry and other land use;

"GHG" means greenhouse gas;

"GHG Program" means a formal or organized program, scheme or arrangement for the recognition of activities leading to Reductions or Removals, or the crediting or issuance of instruments representing, or acknowledging, Reductions or Removals;

"Project" means Greater New Bedford LFG Utilization Project;

"Project Crediting Period" means the time period for which GHG emission reductions or removals generated by the Project are eligible for issuance as VCUs (the rules with respect to the length of such time period and the renewal of the project crediting period are set out in the *VCS Standard*);

"Project Ownership" means the legal right to control and operate the project activities. Distinct from proof of right;

"Project Proponent" means the individual or organization that has overall control and responsibility for the Project, or an individual or organization that together with others, each of which is also a Project Proponent, has overall control or responsibility for the Project. The entity(s) that can demonstrate Project Ownership in respect of the Project. For the avoidance of doubt where an individual executes this Representation in their capacity as an authorized office holder of the company who is the Project Proponent, this Representation is made by the company, not the authorized office holder;

"Reduction or Removal" means a reduction or removal of one tonne of CO₂e caused by the activities of a Project during the Project Crediting Period. Refer to the VCS Program Definitions for the full definitions for "GHG Emissions Reduction (Reduction)" or "Carbon Dioxide Removal (Removal)";

"Validation/Verification Body" or "VVB" means an organization approved by Verra to act as a validation/verification body in respect of providing validation and/or verification services in accordance with the VCS Program Rules;

¹ **Drafting note:** Fill in yellow highlighted text. Remove all highlight formatting before submission.

"VCS Program" means the GHG Program operated by Verra which establishes the rules and requirements that operationalize the VCS to enable the validation of GHG projects and the verification of GHG emission reductions and removals;

"VCS Program Rules" means the rules and requirements set out in the *VCS Program Guide*, the *VCS Standard* and the other VCS Program documents, as such rules and requirements may be updated from time to time;

"Verification Report" means the written report of verification covering the Reductions or Removals generated by the Project from October 1, 2023 to December 31, 2023 and prepared by the VVB in accordance with the VCS Program Rules; and

"Verified Carbon Unit" (VCU) means a unit issued by, and held in the Verra Registry representing the right of an Accountholder in whose account the unit is recorded, to claim the achievement of a Reduction or Removal that has been verified by a validation/verification body in accordance with the VCS Program Rules. Recordation of a VCU in the account of the Accountholder at the Verra Registry is *prima facie* evidence of that Accountholder's entitlement to that VCU.

"Verra Project Database" means the database that provides public access to all project and VCU information, including retirement and tracking of the AFOLU pooled buffer account (and serves similar functions for other Verra programs);

- 1.2 **"Verra Registry"** means the registry used by Verra that ensures all required Project and program documents have been submitted, maintains accounts of VCUs, issues and ensures the seamless flow of VCUs between registry accounts, and maintains custody and records of VCU legal ownership; Documents referred to in this Deed but not defined shall be the VCS Program documents, as updated from time to time, to which the relevant term relates.

2. REPRESENTATIONS

- 2.1 I am the Validation/Verification Body in relation to the verification of the Project.

- 2.2 I hereby represent and warrant that:

- 2.2.1 I have independently verified the Reductions **or Removals** generated by the Project in accordance with the VCS Program Rules;
- 2.2.2 In relation to any validation findings and conclusions provided in the Verification Report, I have independently validated the Project's compliance with the VCS Program requirements as set out in the VCS Program Rules; and
- 2.2.3 All factual information that I provide in relation to this Deed or have provided in the Verification Report is to the best of my knowledge following due inquiry true, accurate and complete in all material respects and I have not made or provided, and will not make or provide, false, fraudulent or misleading statements or information in relation to this Deed or the Verification Report.

- 2.3 I hereby acknowledge and agree that:

- 2.3.1 The following persons may rely on and enforce the terms of this Deed:
- (a) Verra;
 - (b) each person who is an Accountholder holding VCUs relating to the Project at any given time;

- (c) each person on whose behalf VCUs relating to the Project were retired by an Accountholder; and
 - (d) each of the successors and assigns of those persons listed in clauses 2.3.1(a), 2.3.1(b) or 2.3.1(c);
- 2.3.2 Neither Verra, nor any of its respective affiliates, directors, employees, agents, licensors and/or contractors, shall be liable with respect to any claims whatsoever arising out of this Deed or erroneous information within the Verification Report submitted to the Verra Registry for indirect, consequential, special, punitive or exemplary damages, including, without limitation, claims brought against Verra by Accountholders, Project Proponents, other Validation/Verification Bodies or any other third party. This paragraph shall apply regardless of any actual knowledge or foreseeability of such damages;
- 2.3.3 I have read, understood and will abide by the VCS Program Rules; and
- 2.3.4 Verra has an absolute right to amend any of the VCS Program Rules at any time and shall not bear any liability for loss or damage or liability of any kind sustained by the Validation/Verification Body or any other party involved in the Project in any way under the VCS Program as a consequence of such amendment.

3. GOVERNING LAW AND JURISDICTION

This Deed is governed by and interpreted in accordance with English law, and the English courts shall have exclusive jurisdiction to settle any dispute arising from or connected with this Deed including a dispute regarding the existence, validity or termination of this Deed or the consequences of its nullity.

4. SOVEREIGN IMMUNITY

To the extent that the Validation/Verification Body enjoys any right of immunity from set-off, suit, execution, attachment or other legal process with respect to its assets or its obligations under this Deed, the Validation/Verification Body waives all such rights to the fullest extent permitted by law.

5. COUNTERPARTS

This Deed may be executed in any number of counterparts, each of which when executed and delivered is an original and all of which together evidence the same deed.

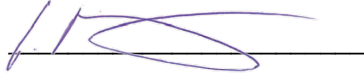
6. DELIVERY

This Deed is delivered on the date written at the start of the Deed.

EXECUTION PAGE²

This Deed has been executed as a deed and is delivered and takes effect on the date stated at the beginning of it.

Executed as a deed by GHD Services Inc., by a director/duly authorized signatory in the presence of a witness:



Signature of director/duly authorised signatory

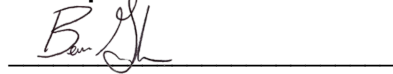
GORDON REUSING

Name of director (in BLOCK CAPITALS)

Signature of director/secretary

Name of director/secretary (in BLOCK CAPITALS)

In the presence of:



Signature of witness

BENJAMIN GERBER

Name of witness (in BLOCK CAPITALS)

455 PHILLIP ST, WATERLOO, ON

Address of witness

² **Drafting Note:** Execution blocks may be adjusted to reflect local law requirements, e.g., if a company seal is required in relation to the execution of a deed by a company pursuant to the laws in its jurisdiction of incorporation.