FINAL VERIFICATION REPORT

GREATER NEW BEDFORD LFG UTILIZATION PROJECT

Document Prepared By GHD Services

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Summary:

CommonWealth Resource Management Corporation (CRMC), for its wholly owned subsidiary Commonwealth New Bedford Energy (CNBE), LLC engaged GHD Services, Inc. (GHD) to complete the verification of the Greater New Bedford LFG Utilization Project (Project Activity and Verified Carbon Standard (VCS) ID: 138 for the Monitoring Period of January 1, 2022 to June 30, 2022 (2022 Monitoring Period) under the requirements of the VCS. The Project Activity is located at the Crapo Hill Landfill in Dartmouth, Massachusetts, United States. The Project Activity is operated by CRMC (Project Proponent).

The Project Activity involves the voluntary capture and utilization of landfill methane (a.k.a., “landfill gas” or “LFG”) at the Crapo Hill Landfill (the “Landfill”). It consists of an expanded active landfill gas

Summary:

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, as needed 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 limited operation 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 was such that GHD, recognized as an independent third-party Validation and Verification Body by the VCS (Registration Number 027), was responsible for verifying 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 the interpretation from the VCS Program Guide, Version 4.1, and VCS Standard Version 4.2, and the VCS Validation and Verification Manual, Version 3.2, 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 Seven (7) findings, which include:

- One (1) Corrective Action Requests (CARs)
- Six (6) Clarification Requests (CLs)
- Zero (0) Forward Action Requests (FAR)

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 4.1, VCS Standard, Version 4.2, and the VCS Validation and Verification Manual, Version 3.2 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 in regards to this Project Activity and Monitoring Period. GHD, therefore, recommends/certifies that the registered Project Activity has obtained the reported emission reductions of 67,565 tonnes of carbon dioxide equivalent (tCO_2e).

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1 INTRODUCTION

1.1 Objective

GHD, as an independent third-party recognized as a VVB by the VCS (Registration Number 027), was responsible for reviewing the Monitoring Report for the period of January 1, 2022 to June 30, 2022 (2022 Monitoring Period) including accompanying materials, previous Validation Report, and the VCS Project Description (PD) including the monitoring plan, baseline assessment, and any supporting documentation. As detailed in Section 4.1 of the VCS Standard, "Verification is the periodic ex-post independent assessment by a validation/verification body of the GHG emission reductions and removals that have occurred as a result of the project during the monitoring period, conducted in accordance with the VCS Program rules."

The objective of the verification was for GHD to provide the Project Proponent and VCS with an opinion regarding whether the 2022 Monitoring Report contained any material discrepancies and whether the 2022 Monitoring Report was prepared in accordance with VCS Program Guide Version 4.1 VCS Standard Version 4.2, and the VCS Validation and Verification Manual, Version 3.2 as well as the translational guidance from the UNFCCC CDM.

Per the VCS VVM, during verification VVBs must evaluate the 2022 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 2022 Monitoring Report are materially accurate.

1.2 Scope and Criteria

The scope of services to be completed by GHD was as follows:

- Verification of the New Bedford LFG Utilization Project located in New Bedford, Massachusetts, U.S.A for the monitoring period of January 1, 2022, through June 30, 2022 under the requirements of the VCS (Project Activity)

The Project Activity (VCS ID:138) was located at the Crapo Hill Landfill in New Bedford, Massachusetts (Landfill, Facility, or Site). The Project Activity consisted of a landfill gas collection system and four Caterpillar 3516 engine-generators designed to capture and combust methane generated within the Crapo Hill solid waste landfill. A backup flare was also connected to the Landfill Gas (LFG) collection system to combust the LFG, as needed when the engines were not

operational. The baseline scenario of the Project Activity consisted of the voluntary installation of twenty-one vertical LFG extraction wells and a flare to combust the collected LFG.

The project scenario consisted of an expanded LFG collection system with additional vertical and horizontal extraction wells and the addition of the four LFG combustion engines. Blowers were used in the baseline and project scenarios to create a vacuum and draw in LFG to the LFG collection system. The Project Activity achieved emissions reductions through the collection and destruction of the methane within the LFG in either the four combustion engines or the flare that converted the methane to carbon dioxide, thereby preventing the release of methane to the atmosphere.

This Project Activity fell under Sectoral Scope 1 – Energy industries (renewable/non-renewable sources) and Sectoral Scope 13 – Waste handling and disposal, for which GHD is accredited. GHD understood for the purposes of this verification, that all correspondence with respect to this Project Activity was 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 reduction 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.

The verification of the 2022 Monitoring Period was conducted in accordance with the requirements presented in the following documents:

- VCS Program Guide, dated 20 January 2022, Version 4.1 (VCS Program Guide) [1]
- VCS Standard, dated 20 January 2022, Version 4.2 (VCS Standard)[2]
- VCS Validation and Verification Manual, dated 19 October 2016, Version 3.2 (VCS VVM)[3]
- UNFCCC CDM ACM001: Large scale Consolidated Methodology – Flaring or use of landfill gas, dated 16 October 2015, Version 16.0
- UNFCCC CDM Methodology ACM0001 "Large scale Consolidated Methodology – Flaring or use of landfill gas", Version 16.0, dated October 16, 2015 (Methodology)
- ISO 14064 Greenhouse Gases – Part 2: Specification with guidance at the project level for quantification, monitoring, and reporting of greenhouse gas emission reduction or removal enhancements, ISO, April 2019 (ISO14064-2:2019)*
- ISO 14064 Greenhouse Gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions, ISO, 2019 (ISO 14064-3:2019)*

*It should be noted that the ISO 14064 standard was updated in 2019 and GHD is in the process of becoming accredited to this new standard. While the 2006 version of this standard is being used for this verification, and is accepted by the agencies, GHD is following the procedures of the new 2019 standard.

1.3 Level of Assurance

GHD conducted this verification to a reasonable level of assurance. Per the VCS Standard Section 4.1.8, “The threshold for materiality with respect to the aggregate of errors, omissions and misrepresentations relative to the total reported GHG emission reductions and/or removals shall be five percent for projects and one percent for large projects.”

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.

1.4 Summary Description of the Project

The Project Activity (VCS ID: 138) was located at the Crapo Hill Landfill in Dartmouth, Massachusetts. The Project Activity consisted of an LFG collection system and four (4) combustion engines designed to capture and combust methane generated within the Crapo Hill solid waste landfill. A back up flare was also connected to the LFG collection system to combust the LFG, as needed, when the engines were not operational. Blowers were connected to the

[1] https://verra.org/wp-content/uploads/2022/01/VCS-Program-Guide_v4.1.pdf
[2] https://verra.org/wp-content/uploads/2022/01/VCS-Standard_v4.2.pdf
[3] https://verra.org/wp-content/uploads/2018/03/VCS_Validation_Verification_Manual_v3.2.pdf

network of piping along with vertical and horizontal extraction wells that were used to apply a vacuum to the system and collect the LFG.

The Project Activity achieved emissions reductions through the collection and destruction of the methane within the LFG in either the four combustion engines or the flare that converted the methane to carbon dioxide, thereby preventing the release of methane to the atmosphere. The baseline scenario consisted of twenty-one LFG extraction wells (9 of which remain operational) and the flare, whereas the project scenario included an expanded active LFG collection system containing additional vertical and horizontal extraction wells and four engines that generated electricity. The baseline scenario of the Project Activity consists of an active landfill gas collection and control system consisting of 64 vertical extraction wells, approximately 30,000 ft of horizontal gas collectors, a 2,000 scfm open flare, and an LFG-fueled electric power generating plant. Passive vent flares are also utilized to provide localized LFG control.

The project scenario consists of an expanded LFG collection system with additional vertical and horizontal extraction wells and the addition of the four LFG combustion engines. Blowers were used in the baseline and project scenarios to create a vacuum and draw in LFG to the LFG collection system. The Project Activity achieved emissions reductions through the collection and destruction of the methane within the LFG in either the four combustion engines or the flare that converted the methane to carbon dioxide, thereby preventing the release of methane to the atmosphere.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The Project Team has assessed and verified that the implementation of the Project Activity and the steps taken to report the emission reductions comply with the VCS criteria and relevant guidance provided by the VCS as well as relevant criteria of the UNFCCC CDM. The criteria used in the verification has been outlined in Section 1.2 above. The verification included a review of relevant documentation and records.

GHD followed a risk-based verification approach. As such, GHD identified the key reporting risks related to the claimed emission reductions and assessed to what extent the Project Activity's control systems are adequate for mitigating any perceived reporting risks.

Key reporting risks that are not sufficiently addressed by the Project Activity's control system represent residual risks. GHD conducted a detailed verification to investigate the residual risks. Key risks assessed during the verification included, but were not limited to, verification of correct use of emission factors, correct use of conversion factors, and consistency in aggregation of emissions data. Wherever practical, direct reading instruments were to be used to ensure any reporting risks were kept within equipment and instrumentation performance limits. GHD included

a Risk Assessment and Evidence Gathering Plan within the Verification Plan. GHD updated the Verification Plan throughout the verification process as necessary. The Final Verification Plan is provided as Appendix A.

During the verification process, the GHD Project Team considered both quantitative and qualitative information on emission reductions. Quantitative data was comprised of the 2022 Monitoring Report and accompanying information submitted to the GHD Project Team by the Project Proponent.

Qualitative data was comprised of information on internal management controls, calculation procedures, and procedures for transfer, frequency of emissions reports, and review and internal audit of calculations/data transfers.

The main components of GHD's verification process were as follows:

- Document Review
- Preparation of Assessment List and Completion of a remote Site assessment
- Verification Assessment and Issuance of Corrective Action Requests (CARs)/Clarification Requests (CLs)
- Response to CAR(s)/CL(s)
- Review and/or development of Forward Action Requests (FARs), as applicable
- Technical Review
- Draft Verification Report Issuance
- Final Verification Report Issuance
- Verification Representation
- The timelines associated with each of these items are discussed in the sections to follow.
- The document review established to what degree the presented Monitoring Plan and associated GHG calculation documentation met the verification standards and criteria.
- The GHD Project Team's document review during the review process comprised, but was not limited to, an evaluation of whether:
- The documentation was complete and comprehensive and follows the structure and criteria given in the Program Manual, Protocol, and its associated guidance.
- The methodologies were justified and appropriate.
- The assumptions behind the inventory were conservative and appropriate.

- The GHG emission calculations were appropriate and use conservative assumptions for estimating GHG emissions.
- The GHG information system and its controls were sufficiently robust to minimize the potential for errors, omissions, or misrepresentations.
- The Facility GHG calculations were justified and appropriate.

The outcome of the document review process was the creation of a Findings Assessment. GHD issued the Findings Assessment to the Project Proponent for response to any corrective actions or clarification requests. Upon closing all findings identified by GHD, a Draft Verification Report was prepared. The Technical Reviewer completed a peer review of the Draft Verification Report and found no additional findings that required response from the Project Proponent. GHD issued a Draft Verification Report to the Project Proponent for review and comment. GHD incorporates the Project Proponent's comments, as applicable and issues the Final Verification Report along with a completed Verification Representation.

GHD based the Verification Representation conclusion on the interaction of three key verification principles as follows:

1. Compliance with the monitoring plan
2. Accuracy
3. Quality of evidence

2.2 Document Review

The VCS verification process relies heavily upon document review. The primary document for review was the 2022 Monitoring Report. The Project Proponent provided GHD with the 2022 Monitoring Report as detailed below:

Document Date	Date Issued to GHD	Version Number	Methodology
18 July, 2022	18 July, 2022	1	ACM0001 Version 16.0

GHD reviewed the above submission and did not identify any issues in the 2022 Monitoring Report

During the document review, GHD became familiar with the Project Activity to ensure the Project Proponent accurately described the on-Site conditions within the 2022 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 2022 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 2022 Monitoring Report
- GHD followed the audit trails and data sets for specific indicators and cross-checked the applicable records.

As part of the verification process GHD requested and reviewed, additional documentation supplemental to the 2022 Monitoring Report., as required.

2.3 Interviews

GHD completed interviews via email as required throughout the verification. Jason Clarke and Ben Gerber corresponded via email with Mr. Thomas Yeransian regarding various aspects of the Project Activity. The following Project Stakeholders were interviewed by GHD for this Monitoring Period.

Name of Interviewee	Position and Company	Details of Items Discussed
Mr. Thomas Yeransian	Principal, CRMC	Discussed resolution of CAR and CLs throughout the verification.

2.4 Site Inspections

The verification process consisted of a thorough document review. As mentioned, GHD elected not to complete an in-person Site Inspection during the verification of the 2022 Monitoring Period 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 2022 Monitoring Period was not required to achieve a reasonable level of assurance.

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 mistakes 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 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.

- CL's were issued to CRMC if the GHD Project Team determined that the information provided by CRMC 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. CRMC 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 A.
- A summary of the final results of the Findings Assessment is presented as follows:

Finding Category	Number of Findings
CL	6
FAR	0
CAR	1
TOTAL	7

2.5.1 Forward Action Requests

- No forward action requests were noted for this monitoring period.

2.6 Eligibility for Validation Activities

Validation activities were not performed as part of this verification.

3 VALIDATION FINDINGS

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

3.1 Participation under Other GHG Programs

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

3.2 Methodology Deviations

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

Number	Deviation	When approved?
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 68ºF and one atmosphere of pressure), methane concentration, the gross heat content (higher heating value) of methane, and the actual temperature and pressure. CNBE determines 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	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.

Number	Deviation	When approved?
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.
5.	The Greater New Bedford Regional Refuse Management District (District) owns and operates the District Initial System. No flow meter is 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 two times each month. 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 $F_{CH4,BL,y}$ 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 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 v4.2, Section 3.18.1 and 2.	Approved during the re-validation assessment in 2016

Number	Deviation	When approved?
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 v4.2, Section 3.18.1 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.

3.3 Project Description Deviations

No project description deviations applied during this monitoring period.

3.4 Grouped Project

This project is not a grouped project.

4 VERIFICATION FINDINGS

During the verification process, the Verification Team came across findings related to the Project Activity's ability to meet VCS requirements and achieve credible emission reductions. Although there are different methods of reporting such results, it is imperative that these issues are transparently identified, discussed, and resolved in the Verification Report.

If during the verification of the Project Activity, the Verification Team identified findings that needed to be addressed to confirm that the Project Activity met the VCS requirements, the Lead Verifier issued a CAR, CL, and/or a FAR, as appropriate, to the Project Proponent via a findings assessment.

Iterations of these requests continued until such a time as the Lead Verifier could adequately resolve or "close out" the identified CAR(s), CL(s), and/or FAR(s), as applicable.

4.1 Project Implementation Status

The Project Activity received its Re-Validation Representation with the VCS dated 16 May 2016 as a Renewable Energy Industries type project under Sectoral Scope 1 defined by the UNFCCC and adopted by the VCS. The Project Activity was registered utilizing the approved

consolidated large scale methodology ACM0001 titled “Flaring or use of landfill gas”, dated 16 October 2015, Version 16.0 with a second crediting period of ten (10) years commencing on the 29 March 2016 immediately following the end of the Project Activity’s first crediting period and ending 28 March 2026.

Section 3.7 of the Standard states that “The project start date a non-AFOLU project is the date on which the project began generating GHG emission reductions or removals”. The earliest credit start date established under the initial validation is March 28, 2006. The initial 10-year crediting period therefore began on March 28, 2006 and concluded on March 28, 2016. The Project Activity was then re-validated in 2016 and the second crediting period began on March 29, 2016 and will conclude on March 28, 2026. The stated crediting period is in accordance with the project crediting period Standard requirements. Monitoring data was provided for the 2022 Monitoring Period related to the destruction of LFG from the Crapo Hill Landfill in four (4) engines. The monitoring data indicates the Project was in consistent operation through the Monitoring Period. GHD verified that the data collected for the 2022 Monitoring Period was in accordance with the monitoring requirements of the registered VCS PD.

The four (4) engines actively destroyed LFG during this Monitoring Period. The back-up flare had limited use during the 2022 Monitoring Period and as a result, no emission reductions are claimed from flaring.

Based on a review of project information, GHD determined that there are no material discrepancies between project implementation and the VCS PD.

GHD’s review of the monitoring plan and monitoring systems confirmed that the Project Activity is operating according to the monitoring plan, and the data collection methods and monitoring systems implemented at the Project Activity are robust.

The Project is currently registered with the American Carbon Registry (ACR) with the Project ID; ACR 113. However, emission reductions for this Monitoring Period have not and will not be claimed under ACR. GHD verified that the Project Proponent has not claimed GHG emission reductions in emissions trading programs or any other mechanism that includes GHG allowance trading. GHD notes that emission reductions were only claimed under ACR for the following Monitoring Periods:

- January 1, 2007 to June 30, 2007
- July 1, 2007 to December 31, 2007
- January 1, 2008 to June 30, 2008
- July 1, 2008 to December 31, 2008

The Project is also qualified under the Massachusetts, Connecticut, Maine and New Hampshire Renewable Energy Portfolio Programs to produce Class I Renewable Energy Credits in Massachusetts, Connecticut and Maine; and Class III Renewable Energy Credits in

New Hampshire. The Renewable Energy Credits from these Programs do not result in any GHG emission reduction attributes associated with the destruction of methane.

The Project Activity supports sustainable development as it involves renewable energy generation.

4.2 Safeguards

4.2.1 No Net Harm

The Project is an environmental control project that is designed and operated to:

1. Collect and control landfill gas emissions from a landfill that may otherwise be uncollected and uncontrolled
2. Utilize an energy resource that may be otherwise wasted.

The Project Proponent did not identify any negative environmental and socio-economic impacts. GHD performed an independent review of the permits associated with the Project Activity and the EPA's ECHO database and found no instance of noncompliance that has not been addressed by the Project Proponent or Owner of the Site.

4.2.2 Local Stakeholder Consultation

The Project Proponent regularly engages with local stakeholders to gather input. Tours are provided of the Project Activity to interested parties such as school groups, college students, environmental advocacy groups, and political leaders. The Project is often used as an example by the State of Massachusetts Clean Energy Council and Department of Environmental Protection as an important environmental project which helps Massachusetts achieve their environmental, renewable energy, greenhouse gas reduction, and sustainability goals. In addition, the Project was awarded the Silver Medal for Excellence in 2010 for LFG and biogas projects by the Solid Waste Association of North America (SWANA).

4.3 AFOLU-Specific Safeguards

The Project Activity is not an Agriculture, Forestry and Other Land Use (AFOLU) project; therefore, there are no AFOLU-Specific safeguards.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

4.4.1 Monitoring Parameters

The following is a list of the monitoring parameters that the Project Proponent monitored and recorded throughout the crediting period in order to calculate the claimed emissions reductions for the specific Monitoring Period:

Symbol	Description (Units)	Frequency
EGfacility,y	Percent Methane content of landfill gas and biogas entering the engines (% v/v)	Continuous/real-time measurement, hourly, daily (SCADA)
FCH4,EL,y (symbol only represents landfill gas portion)	Volume of landfill gas and biogas entering the engines (acfm)	Continuous/real-time measurement, hourly, daily (SCADA)
-	Temperature of landfill gas and biogas entering the engines (ºF)	Continuous (SCADA)
-	Pressure of landfill gas and biogas entering the engines (PSIG)	Continuous (SCADA)
-	Percent methane content of biogas from the anaerobic digester (% v/v)	Continuous and at totalization of biogas volume
-	Volume of biogas from the anaerobic digester (scfm)	Continuous and at totalization of biogas volume
-	Temperature of the biogas from the anaerobic digester (ºF)	Continuous (SCADA)
-	Pressure of biogas from the anaerobic digester (PSIG)	Continuous (SCADA)
FCH4,flared,y	Volume of landfill gas to the flare (scfm)	Continuous, hourly, daily
%DistrictInitialSystem	Fraction of total LFG collected attributable to District Initial System represents the amount of landfill gas	Twice per month (approximately every two weeks)
EFEL,Grid,y	Emission factor for electricity generation in year y (tonnes CO2/MWh)	Annual

Symbol	Description (Units)	Frequency
TDLGrid,y	Average technical transmission and distribution losses for grid in year y (no units)	Annual
ECGrid,y	Amount of grid electricity consumed by the project (MWh)	Annual
FCDiesel,y	Amount of diesel fuel consumed by the emergency generator (gallons)	Compiled annually

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 CDM Methodology 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.

4.4.2 Methods for Recording Monitoring Parameters

SCADA System Monitoring

The Project Activity uses their internal SCADA system to record the monitoring parameters listed in Section 4.4.1 where the frequency of collection is continuous. The SCADA system measures and records methane content and gas (LFG and biogas) 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 gas flows (LFG and biogas), 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.

The total gas flow provides data regarding the mixed LFG from the landfill and biogas from the anaerobic digester system. The same conversion of gas flow to heating value is made using data from the biogas feed pipe. The difference between the total BTUs entering the engines and the total BTUs received from the biogas facility is the quantity attributed to the LFG collected and is used in the calculations described previously in the VCS PD. The data collection method is consistent with the Project Activity deviation number 5 noted in Section 4.1 above and results in an

accurate separation of the methane associated with the LFG and the methane associated with the biogas.

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 2022 Monitoring Period. GHD determined that using the SCADA system to record the above noted parameters is appropriate and consistent with the VCS requirements.

The 2022 Monitoring Report Section 4.3 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 2022 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 2022 Monitoring Report, the Project Proponent has not attributed any LFG flow to the flare (refer to Exhibit 3 of the 2022 Monitoring Report). GHD reviewed the provided meter data and determined that LFG was combusted by the flare for 11 independent days during the 2022 Monitoring Period. As the flare did not operate for a significant time during the reporting period, emissions reductions have not been claimed from flaring. This is documented within the Monitoring Report. GHD has determined that the quantification of the methane combusted by the flare during the 2022 Monitoring Period is appropriate.

Methane Content of the Gas and Biogas

The methane content of the gas to the engines (LFG and biogas mixed) 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 2022 Monitoring Report. The Project Proponent provided the calibration results to GHD for review during the 2022 Monitoring Period. GHD reviewed the calibration results for the NDIR meter and determined they were in compliance during the 2022 Monitoring Period.

The methane content of the biogas from the anaerobic digestion system is measured continuously using a Hitech Model 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. This

information aids in subtracting the ineligible biogas fraction, from the biogas/LFG mixture that is fed into the engines.

District Initial System

The District Initial System 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 (4.1%) was used to calculate the baseline emissions associated with the District Initial System in 2022. 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.

4.4.3 Calculation of Emission Reductions

Baseline Emissions

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

- UNFCCC CDM "Large scale Consolidated Methodology – Flaring or use of landfill gas", ACM0001, Version 16.0 dated 16 October 2015.

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. This is a dimensionless value (0.1) that was available at validation and is therefore defined in the VCS PD. GHD verified that the Project Proponent has applied the Baseline Emissions calculations appropriately and they are consistent with the VCS PD.

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 – CO_2 – Generated from the combustion of fossil fuels (diesel) in an emergency generator
- Electricity Consumption Emissions – CO_2 – Generated from the grid consumption of electricity within the Project Boundary

GHD verified that the Project Proponent has applied the Project Emissions calculations appropriately and they are consistent with the VCS PD.

Leakage

As per methodology ACM0001; "No leakage effects are accounted for under this methodology"

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 2022 monitoring period.

Uncertainty Associated with the Calculation of Emissions

GHD identified the following minor uncertainties associated with the calculation of the Baseline and Project emissions which were addressed through the issuance of the following CAR’s:

- Baseline Emissions – CL#3 – The Project Proponent reported that flaring emissions were not included as the flare had very limited operation during the monitoring period. 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.
- Baseline Emissions – CL#6 – The Project Proponent applied a constant value for LFG flow rate from the DIS contained within the Phase 1 area each month, with no fluctuation. The Project Proponent Accuracy stated that the LFG flow is below LFG flows detection limit of 5 scfm, and that they used a conservative value of 5 cfm from each well. GHD understands that over time historical wells are less productive and these flows are consistent with the age of the infrastructure and associated waste in that area.

Documentation

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

Default Values

GHD reviewed the appropriateness of the default values applied by the Project Proponent which were mainly attributed to conversion from imperial to metric units along with default conversion factors for converting BTUs of methane to standard cubic feet. GHD determined that the default values applied were appropriate.

Conclusion

The referenced methodology has been applied correctly to calculate baseline emissions, project emissions and net GHG emission reductions.

Relevant assumptions and data have been listed in the VCS PD and have been followed.

Data and parameter values used in the VCS PD are reasonable in the context of the Project and have consistently been applied during the 2022 Monitoring Period, unless otherwise noted.

Estimates of the baseline and project emissions can be replicated using the provided data and parameters values listed in the VCS PD and 2022 Monitoring Report.

Materiality

There is a 0.02% discrepancy (overstatement) in total reported emission reductions as identified in CL#5.

4.5 Quality of Evidence to Determine GHG Emission 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. Provided below is a summary of the CL's that were used through the verification process to address specific evidence requirements and clarify the quality of evidence:

CL#1 – Request for the Project Proponent to provide clarification regarding some highlighting and notes on a column in the 'March22' tab. This was a result of the impact of daylight savings time on the data and did not require any further follow-up.

CL#2 – Request for the Project Proponent to provide clarification on instances of missing data in the NSTAR Power Report. CRMC clarified that the data was not missing, the readings were simply 0 during the times where a dash was observed. As a result no further follow-up was required.

CL#4 – Request for the Project Proponent to clarify any changes to the Project Activity since the previous Monitoring Period. CRMC identified that there were no changes to the site or Project Activity from previous Monitoring Periods which was consistent with the data reviewed and the information provided. As a result, this was evaluated as part of the risk assessment and an on-site visit was not completed for the 2022 Monitoring Period.

CL#5 – Request for the Project Proponent to provide clarification on why no project emissions were included in the emission reduction calculations. CRMC noted that they have quantified the Project Emissions in Exhibit 1 however they were not significant and therefore not included in the final emission reduction calculations. This resulted in a minor immaterial discrepancy of 0.02% and therefore was not corrected.

GHD rose one CAR during the verification process to request updates to project documentation as follows:

CAR#1 – Notified the Project Proponent of a minor immaterial discrepency regarding a value being rounded and missing its decimal points, resulting in slight difference in the results of the subsequent calculations. Given the resulting discrepancy was immaterial, the Project Proponent did not correct their emission reduction calculations or Monitoring Report.

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 2022 Monitoring Report. The information is clearly conveyed by the Project Proponent from the metering through to the SCADA system, the accompanying excel spreadsheets, and the calculation spreadsheet. The instrument calibration documentation, 2022 Monitoring Report, raw data, and permitting documentation support the transparency and quality of the information provided by the Project Proponent.

Each of the above noted CLs and CAR were closed out by GHD. A complete summary of the findings assessment is provided in Appendix B.

Monitoring Equipment Calibration Frequency

During the verification, GHD performed a review of the monitoring frequency provided in the 2022 Monitoring Report for the monitored parameters and confirmed that it was consistent with the VCS PD. GHD reviewed the calibration requirements and determined that the manufacturer calibration frequency requirements were met in the 2022 Monitoring Period.

Conclusion

GHD concluded that the Project Proponent provided the required evidence with appropriate quality that allowed for accurate determination of the GHG emissions reductions from the Project Activity for the 2022 Monitoring Period.

4.6 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 CONCLUSION

The verification of the Project Activity was performed in accordance with the following documents:

- VCS Program Guide, dated 20 January 2022, Version 4.1 (VCS Program Guide)
- VCS Standard, dated 20 January 2022, Version 4.2 (VCS Standard)
- VCS Validation and Verification Manual, dated 19 October 2016, Version 3.2 (VCS VVM)
- UNFCCC CDM ACM001: Large scale Consolidated Methodology – Flaring or use of landfill gas, dated 16 October 2015, Version 16.0
- UNFCCC CDM Methodology ACM0001 "Large-scale Consolidated Methodology – Flaring or use of landfill gas", Version 16.0, dated October 16, 2015 (Methodology)
- ISO 14064 Greenhouse Gases – Part 2: Specification with guidance at the project level for quantification, monitoring, and reporting of greenhouse gas emission reduction or removal enhancements, ISO, April 2019 (ISO14064-2:2019)*
- ISO 14064 Greenhouse Gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions, ISO, 2019 (ISO 14064-3:2019)*
- *It should be noted that the ISO 14064 standard was updated in 2019 and GHD is in the process of becoming accredited to this new standard. While the 2006 version of this standard is being used for this verification, and is accepted by the agencies, GHD is following the procedures of the new 2019 standard.

Through the collection of LFG from the LFG collection system in the Crapo Hill Landfill, including blowers, and subsequent destruction of the LFG in four electricity generation engines and/or a back up flare, 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.

- Provided below is a summary of the emissions reductions: Verification/Monitoring
- Verification period: From January 1, 2022 to June 30, 2022

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

Monitoring Period	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
January 1, 2022 - June 30, 2022	67,565	0	0	67,565
Total	67,565	0	0	67,565

It is GHD's opinion that the emission reductions attributable to the Project Activity are free of material misstatements and concludes to a reasonable level of assurance that the emission reductions are additional to any emission reductions that would occur in the absence of the Project Activity. As a result, GHD is issuing a positive Verification Opinion in regards to this Project Activity and will therefore be approving the Project Activity for registration with the VCS with no limitations or qualifications. The Verification Deed of Representation is provided in Appendix C. GHD has not raised any qualifications or limitations.

Jason Clarke, Co-Lead Verifier

Ben Gerber, Co-Lead Verifier

Gordon Reusing, Technical Reviewer

APPENDIX A: VERIFICATION PLAN

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Our ref: 11203966

October 04, 2022

Thomas Yeransian
CommonWealth Resource Management
7 Winslow Way
Mansfield, Massachusetts
02048

Verification Plan
Greater New Bedford LFG Utilization Project
New Bedford, Massachusetts, United States
VCS ID: 138
Monitoring Period: January 1, 2022, to June 30, 2022

Dear Thomas Yeransian,

1. Introduction

CommonWealth Resource Management Corporation (CRMC) retained GHD Services Inc. (GHD) to complete an independent third-party greenhouse gas (GHG) verification of the Greater New Bedford Landfill Gas (LFG) Utilization Project (Project Activity), which is listed under the Verified Carbon Standard (VCS) as VCS ID: 138. The project was located in New Bedford, Massachusetts, United States of America. The owner of the Project was CommonWealth New Bedford Energy, LLC (CNBE) which is a wholly-owned subsidiary of CRMC. CRMC was the Project Proponent while the landfill was owned by the Greater New Bedford Regional Refuse Management District. The verification was for the monitoring period (January 1, 2022, to June 30, 2022).

The Verra: VCS program was established to provide a global standard for both validation and verification projects on a voluntary basis. The VCS takes the most stringent principles and standards available to the international GHG market, including and comprising the United Nations Framework Convention on Climate Change (UNFCCC) and Climate Action Reserve, with reporting completed to the International Standards Organization (ISO) 14604 Part 3 standard.

GHD is a VCS-recognized GHG Validation/Verification Body (VVB) (Registration Number 027) and is accredited by the ANSI National Accreditation Board (ANAB) [1] under ISO 14065 to provide organizational and project-level validation and verification services.

The VCS defines verification as “the periodic ex-post independent assessment by a validation/verification body of the greenhouse gas emission reductions and removals that have occurred as a result of the project during the monitoring period, conducted in accordance with the VCS Program rules”.[2] This Verification Plan was prepared in accordance with the requirements presented in the following documents:

– VCS Program Guide, dated 20 January 2022, Version 4.1 (VCS Program Guide)

[1] ANAB is a member of the International Accreditation Forum (IAF).
[2] https://verra.org/wp-content/uploads/2020/03/VCS-Standard-v4.0_Updated.pdd (Section 4.).

– VCS Standard, dated 20 January 2022, Version 4.2 (VCS Standard)
– VCS Validation and Verification Manual, dated 19 October 2016, Version 3.2 (VCS VVM)

In accordance with the VCS Program Guide, eligible GHG emissions reduction projects are to be evaluated by an accredited Validator/Verifier who has been approved under an accredited GHG program. GHD is a recognized Validator/Verifier under the VCS for projects within the following sectoral scopes:

– Sectoral Scope 1 - Energy industries (renewable/non-renewable sources)
– Sectoral Scope 4 - Manufacturing industries
– Sectoral Scope 5 - Chemical industry
– Sectoral Scope 8 - Mining/Mineral production
– Sectoral Scope 9 - Metals production
– Sectoral Scope 10 - Fugitive emissions from fuels (solid, oil, and gas)
– Sectoral Scope 12 - Solvents use
– Sectoral Scope 13 - Waste handling and disposal

GHD recognizes that the Project Activity falls under Sectoral Scopes 1 and 13, for which GHD is accredited.

2. Verification Objective

GHD, as an independent third-party recognized as a VVB by the VCS (Registration Number 027), was responsible for reviewing the 2022 Monitoring Report including accompanying materials, previous Validation Report, and the VCS Project Description (PD) including the monitoring plan, baseline assessment, and any supporting documentation.

The objective of the verification was for GHD to provide the Project Proponent and VCS with an opinion regarding whether the 2022 Monitoring Report contained any material discrepancies and whether the Monitoring Report was prepared in accordance with VCS Program Guide Version 4.0, the VCS Standard Version 4.1, and the VCS Validation and Verification Manual Version 3.2, as well as the translational guidance from the UNFCCC CDM.

Per the VCS VVM, 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

GHD conducted this verification to a reasonable level of assurance.

4. Materiality Threshold

Materiality threshold for the Project Activity was set at plus or minus 5 percent based on the understanding that the Project Activity produced less than 300,000 tons of carbon dioxide equivalent (tCO_2e) of GHG emission reductions per year and was categorized as a “project” in accordance with Section 3.9.1 of the VCS Standard.

A single error, omission, or misstatement, a series of discrete errors, omission or misrepresentation, or one or more qualitative factors, when aggregated were considered material.

5. Verification Standards and Criteria

The verification of the 2022 monitoring period was conducted in accordance with the requirements presented in the following documents:

- VCS Program Guide, dated 20 January 2022, Version 4.1 (VCS Program Guide)
- VCS Standard, dated 20 January 2022, Version 4.2 (VCS Standard)
- VCS Validation and Verification Manual, dated 19 October 2016, Version 3.2 (VCS VVM)
- UNFCCC CDM ACM001: Large scale Consolidated Methodology – Flaring or use of landfill gas, dated 16 October 2015, Version 16.0
- UNFCCC CDM Methodology ACM0001 "Large-scale Consolidated Methodology – Flaring or use of landfill gas", Version 16.0, dated October 16, 2015 (Methodology)
- ISO 14064 Greenhouse Gases – Part 2: Specification with guidance at the project level for quantification, monitoring, and reporting of greenhouse gas emission reduction or removal enhancements, ISO, April 2019 (ISO14064-2:2019)*
- ISO 14064 Greenhouse Gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions, ISO, 2019 (ISO 14064-3:2019)*

**It should be noted that the ISO 14064 standard was updated in 2019 and GHD is in the process of becoming accredited to this new standard. While the 2006 version of this standard is being used for this verification, and is accepted by the agencies, GHD is following the procedures of the new 2019 standard.*

6. Verification Team

The Verification Team consisted of the following members:

Co-Lead Verifier and Technical Expert – Jason Clarke, P.Eng.

Jason Clarke is a Lead Verifier and has been with GHD since 2012. He has a practical and facility-specific experience associated with a range of greenhouse gas (GHG) validation and verification activities. Jason is a Lead Verifier under the California Air and Resources Board (ARB) and an offset project specialist in Livestock and Ozone Depleting Substances (ODS); a Project Expert under the Climate Action Reserve/Climate Forward Program; a Lead Verifier and Landfill Project Specialist under the Climate Action Reserve; and a Lead Verifier for the verification of a variety of Ontario based facilities under O. Reg. 452/09 and 390/18. Jason participated in the Landfill Protocol Workgroup for the updates to the Climate Action Reserve Landfill Protocol. Further, he has been a validation/verification team member for a variety of GHG Validation and Verification projects registered under ANAB and UNFCCC Clean Development Mechanism (CDM).

Jason has been involved in the preparation of GHG Validation and Verification plans, issues logs, draft and final validation/verification reports, and findings assessments for various GHG projects associated with the Ontario Ministry of the Environment and Parks (MECP), ANAB, TCR, Verra (VCS), and the UNFCCC CDM. He also has experience with the internal and external auditing related to GHG Verification and Validation projects in Ontario, Quebec, Alberta, and British Columbia.

Role of Co-Lead Verifier: As Co-Lead Verifier, Jason was the primary contact for CRMC/CNBE. The Co-Lead Verifier was responsible for establishing that no conflicts of interest are present prior to the initialization of the

work. During the verification, Jason was responsible for preparing and/or reviewing and issuing the findings assessments as well as the transfer of material to the Independent Technical Reviewer when required.

Co-Lead Verifier – Ben Gerber, MCC

Ben Gerber is a Climate Change Specialist and has been with GHD since 2018. Ben has practical experience completing greenhouse gas verifications and other GHG consulting work. Ben has been a member on GHG assurance teams for projects registered under a variety of programs and regulations including the Climate Action Reserve's Climate Forward program, Verra's VCS program, the American Carbon Registry, O. Reg. 390/18, the California ARB's cap-and-trade program, the Government of Canada's Output-Based Pricing System and Alberta's Carbon Competitiveness Incentive Regulation. Additionally, Ben has been a team member on teams conducting studies for provincial governments seeking to implement a carbon offset program within their jurisdiction. Ben's breadth of GHG quantification experience has equipped him with a detailed understanding of GHG quantification processes and major emission sources throughout a jurisdiction, while his academic background studying climate change has provided him with a detailed understanding of expected climate impacts, and associated solutions and resiliency measures.

Role of Co-Lead Verifier: The Co-Lead Verifier was responsible for establishing that no conflicts of interest are present prior to the initialization of the work. During the verification, Ben was responsible for preparing and/or reviewing and issuing the findings assessments as well as the transfer of material to the Independent Technical Reviewer when required.

Technical Reviewer and Technical Expert – Gordon Reusing, M.Sc., P.Eng.

Gord Reusing 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 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. Gord has conducted GHG verifications as a Lead Verifier, Technical Exper,t 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).

Role of Technical Reviewer and Technical Expert: As the Technical Reviewer and Technical Expert, Gord was responsible for the third-party review of the verification report prepared by the Verification Team against the requirements of the VCS specifically providing technical expertise for the overall independent review process.

7. Scope of Services

The scope of services completed by GHD were as follows:

– Verification of the New Bedford LFG Utilization Project located in New Bedford, Massachusetts, U.S.A for the monitoring period of January 1, 2022, through June 30, 202,2 under the requirements of the VCS

The Project Activity (VCS ID:138) was located at the Crapo Hill Landfill in New Bedford, Massachusetts (Landfill, Facility, or Site). The Project Activity consists of a landfill gas collection system and four Caterpillar 3516 engine-generators designed to capture and combust methane generated within the Crapo Hill solid waste landfill. A backup flare was also connected to the Landfill Gas (LFG) collection system to combust the LFG, as needed when the engines were not operational. The baseline scenario of the Project Activity consisted of the voluntary installation of twenty-one vertical LFG extraction wells and a flare to combust the collected LFG.

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 was accepted for use by the VCS as part of the validation of the second crediting period for the Project Activity that began on March 29, 2016 and ends on March 28, 2026.

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

7.1 Project Activity Operations

The project scenario consists of an expanded LFG collection system with additional vertical and horizontal extraction wells and the addition of the four LFG combustion engines. Blowers were used in the baseline and project scenarios to create a vacuum and draw in LFG to the LFG collection system. The Project Activity achieved emissions reductions through the collection and destruction of the methane within the LFG in either the four combustion engines or the flare that converted the methane to carbon dioxide, thereby preventing the release of methane to the atmosphere.

7.2 Emission Sources

The Project Activity includes the following emissions sources related to the collection and destruction of LFG (methane):

- LFG Destruction – CH_4
- Fossil Fuel Consumption – CO_2, CH_4, N_2O
- Electricity Consumption – CO_2, CH_4, N_2O
- District Initial System LFG Destruction – CO_2, CH_4, N_2O

The above emission sources are in alignment with the Methodology.

7.3 Geographical and Organizational Boundaries

The verification will include the emission sources from the Project Activity, which is located at the following address:

Crapo Hill Landfill
300 Samuel Barnet Boulevard
Dartmouth, Massachusetts

At the following grid coordinates:

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

7.4 Monitoring Period

The 2022 Monitoring Period is from January 1, 2022 to June 30, 2022

7.5 Use of this Verification Plan

This report has been prepared for the use of CRMC and Verra VCS.

Statements from GHD's Verification Plan must reference the date of issuance of GHD's report, the applicable verification period and the associated program for which the verification was conducted. The GHD mark shall

not be used by CRMC 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 monitoring period verified by GHD.

8. Verification Process

The main components of GHD's verification process were as follows:

- Document Review
- Preparation of Assessment List and Completion of a remote Site assessment
- Verification Assessment and Issuance of Corrective Action Requests (CARs)/Clarification Requests (CLs)
- Response to CAR(s)/CL(s)
- Review and/or development of Forward Action Requests (FARs), as applicable
- Technical Review
- Draft Verification Report Issuance
- Final Verification Report Issuance
- Verification Representation

The timelines associated with each of these items are discussed in the sections to follow.

8.1 Overview of Verification Process

The Verification Team assessed and verified whether the implementation of the Project Activity and the steps taken to report GHG emission reductions complied with the VCS criteria and relevant guidance provided by the VCS outlined in Section 4. The verification included a review of relevant documentation and records.

During the verification process, GHD's Verification Team considered both quantitative and qualitative information on emission reductions. Quantitative data comprised of the Monitoring Report(s) submitted to the Verification Team by the Project Proponent. Qualitative data comprised of information on internal management controls, calculation procedures, and procedures for transfer, frequency of emissions reports, and review and internal verification of calculations/data transfers.

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

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

8.2 Verification Findings

During the verification process, the Verification Team may have identified findings related to the Project Activity's ability to meet VCS requirements and achieve credible emission reductions. Although there are different methods of reporting such results, it is imperative that these issues are transparently identified, discussed, and resolved in the Verification Report.

If during the verification of the Project Activity, the Verification Team identified findings that needed to be addressed to confirm that the Project Activity met the VCS requirements, the Lead Verifier issued a CAR, CL, and/or a FAR, as appropriate, to the Project Proponent via a findings assessment.

Iterations of these requests continued until such a time as the Lead Verifier could 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 Project Proponent 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 [3]:

- 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 Project Proponent 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 Project Proponent 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 Project Proponent 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."[3]

The Lead Auditor 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 Project Auditing Team will report on all FARs in the findings assessment and Verification Report.

8.3 Site Visit

GHD performed a risk-based evaluation to completing a site visit for the 2022 Monitoring Period. As the 2022 Monitoring Period is the fifth reporting year for which a verification was conducted for the Project Activity and no major changes have been made to the emission sources, monitoring equipment, or data management systems, GHD determined that there was a low risk associated with not completing a Site visit. Through the verification process, GHD determined that completing a site visit was not required to achieve a reasonable level of

[3] **CDM validation and verification standard for project activities**

assurance for the 2022 Monitoring Period. The last site visit for this Project Activity was completed on February 19, 2018 and there have been no major changes to the Site or Project Team from the previous site visit.

8.4 Reporting

The Verification Report described the verification process, any findings raised, resolution of findings, and the conclusions reached by the VVB during the verification. GHD used the most recent VCS Report Template.

The results of the verification gave the necessary input for the Verification Representation. The Verification report included a statement that provided all required details identified in Section 4.1.17 of the VCS Standard, Version 4.2:

- Description of the level of assurance of the verification
- Description of the objectives, scope and criteria of the verification
- Description as to whether the data and information supporting the GHG assertion were hypothetical, projected and/or historical in nature
- Inclusion of the VVB's conclusion on the GHG assertion, including any qualifications or limitations

The Verification Report stated the volume of verified GHG emission reductions or removals generated during the monitoring period.

9. Strategic Analysis

GHD's Verification Team performed a strategic analysis to understand the activities and complexity of the Facility and product to determine the nature and extent of the verification activities.

GHD's strategic analysis included:

a. Relevant sector information
b. Nature of operations of the Project Activity
c. Criteria requirements, including applicable regulatory and/or GHG programme requirements
d. Materiality threshold, including the quantitative and qualitative components
e. Likely accuracy and completeness of the GHG statement
f. Scope of the GHG statement and related boundaries
g. Time boundary for data
h. Emissions sources and their contribution to the overall GHG statement
i. Changes in GHG emissions from the prior monitoring period
j. Appropriateness of quantification and reporting methods, and any changes
k. Sources of GHG information
l. Data management information system and controls
m. Management oversight of the reporting data and supporting processes
n. Availability of evidence for the GHG information and statement
o. Results of previous verifications
p. Results of sensitivity or uncertainty analysis
q. Allocation approach
r. Type of GHGs

s. Applied monitoring methodology (i.e., direct measurement of GHGs or calculation of GHGs with indirect measurement of activity and calculation data)

t. Other relevant information

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

The results of GHD's strategic analysis were used in the risk assessment. GHD followed a risk-based verification approach. As such, GHD identified the key reporting risks related to the claimed emission reductions and assessed to what extent the Project Proponent's control systems were adequate for mitigating any perceived reporting risks.

Key reporting risks that were not sufficiently addressed by the project operator's control system represented residual risks. The Verification Team conducted a detailed verification to investigate the residual risks. Key issues in verification included, but were not limited to, verification of correct use of emission factors, correct use of conversion factors, and consistency in aggregation of emissions data. Wherever practical, direct reading instruments were used to ensure that any reporting risks were kept within equipment and instrumentation performance limits.

The risk assessment was updated during the verification process, as required. Based on GHD's review of the Project Activity operations during the 2022 Monitoring Period, the following table summarizes the potential risk and magnitude of potential errors, omissions, or misrepresentations, as currently known:

Table 9.1 Assessment

Source and Percentage of Total Attributable Emissions	Attributes	Inherent Risk	Control Risk	Detection Risk Design	Consideration for Procedure
General					
Facility Boundary	Occurrence	Low – All equipment related to the Project Activity is operated by CRMC and all relevant emissions are included in the 2022 Monitoring Report.	Low – Boundary is well defined in the CRMC and the associated methodology and relevant emissions processes are considered in the quantification.	Low	GHD confirmed the boundaries through review of Project Activity operations, emission sources, supporting documentation, and interviews with personnel.
	Completeness				
	Accuracy				
	Classification				
	Cut-off				
Site Visit	Occurrence	Medium – GHD has previously conducted verifications of the Facility. The GHD project team has knowledge of the Project Activity type and data from previous verifications, including in-person Site Visits.	Low – Project Activity data was reviewed and GHD interviewed CRMC personnel regarding any potential changes to Project Activity operations.	Low	GHD determined that there was a low risk associated with not completing a Site Visit for the 2022 Monitoring Period.
	Completeness				
	Accuracy				
	Classification				
	Cut-off				

Source and Percentage of Total Attributable Emissions	Attributes	Inherent Risk	Control Risk	Detection Risk Design	Consideration for Procedure
Data Management	Occurrence Completeness Accuracy Classification Cut-off	Medium – Moderate number of different inputs used in the calculation of emissions. All inputs are tracked by on-site management systems.	Low		GHD reviewed all data systems, the flow of data to the Monitoring Report, and the QA/QC procedures, thereby mitigating the detection risk to low.
Baseline Emissions					
LFG Destruction (100%)	Occurrence Completeness Accuracy Classification Cut-off	Medium - An on-site SCADA system measured methane content and gas volume to the engines and flare each minute. Meters were calibrated regularly. This source was considered a significant contributor to emissions. Therefore, the inherent risk was medium.	Low - Meters were calibrated regularly. The SCADA system was automatically backed up daily. The file was backed up both at the Facility and off site. This led to a low control risk related to data acquisition and control.	Low	GHD reviewed SCADA data related to on-site methane content and gas volumes and meter calibrations for the entire 2022 Monitoring Period. There was a low risk that a material error would not be detected.
Project Emissions					
Fossil Fuel Consumption (11.04%)	Occurrence Completeness Accuracy Classification Cut-off	Medium - Fossil fuel consumption was recorded internally, however this was a relatively low contributing source of emissions. Therefore, the inherent risk was set to medium.	Medium - As this was a low magnitude source, the overall change in emissions was expected to be very low, however fossil fuel consumption was recorded internally, therefore the control risk was medium.	Low	GHD reviewed the internal fossil fuel consumption records, and default emission factors used in the calculations. There was a low risk that a material error would not be detected.
Electricity Consumption (0%)	Occurrence Completeness Accuracy Classification Cut-off	Low - Electricity consumption was determined from third-party invoices; therefore the inherent risk was low.	Low – Electricity consumption was determined from third-party invoices, therefore the control risk was low.	Low	GHD reviewed third-party invoices and all defaults and emission factors used in the calculations. There was a low risk that a material error will be not detected.

Source and Percentage of Total Attributable Emissions	Attributes	Inherent Risk	Control Risk	Detection Risk Design	Consideration for Procedure
District Initial System LFG Destruction (88.96%)	Occurrence	Medium - LFG destroyed in the baseline was determined with well head measurements of District Initial System. Data was collected with a portable gas analyzer that requires regular calibration. The inherent risk was medium.	Low – Calibration of the portable gas analyzer was completed prior to obtaining each set of measurements and documented. GHD reviewed all accompanying documentation, therefore the control risk was low.	Low	GHD reviewed each measurement, the qualifications of the responsible party, and the associated calibration records for the monitoring period. There was a low risk that a material error was not detected.
	Completeness				
	Accuracy				
	Classification				
	Cut-off				

During the verification, any new risks or material concerns that could potentially lead to errors, omissions, and misrepresentations will be identified, reviewed and assessed.

11. Evidence Gathering Plan

GHD has developed an evidence gathering plan for internal use based on review of the objectives, criteria, scope, and level of assurance detailed above. The evidence-gathering plan is designed to lower the verification risk to an acceptable level and specifies the type and extent of evidence-gathering activities. The evidence-gathering plan is dynamic and will be revised, as required, throughout the course of the verification.

12. Quantitative Testing

Quantitative data or raw data will be made available to GHD. GHD will evaluate annual GHG emission calculation methodologies.

13. Verification Timelines

GHD was committed to providing efficient and effective services to all of its clients. In order for GHD to maintain a strict schedule, it was additionally the responsibility of CRMC to maintain adherence to the proposed schedule.

The following table presents the timelines based on the general information provided by the Project Proponent with regard to the date on which the Monitoring Report was available to GHD. A key component to maintaining the proposed timelines required the timely and complete response of the Project Proponent to any/all CAR(s), CL(s), and FAR(s).

GHD reserved the right to revise or change the proposed timelines and the associated fees given the following occurrences:

– A CAR/CL was not adequately responded to in accordance with VCS standards within ten (10) days of submittal of the request by GHD to the Project Proponent.

– The VCS guidance related to the verification was revised during the verification process.

Assuming that none of the previously mentioned events occurred during GHD's verification assessment such that the verification process timelines would be altered, the following table presents the proposed timelines for completing the verification.

Table 10.1 Proposed Verification Timeline

Date/Timeline	Milestone	GHD Deliverable
Proposal Issuance	Proposal provided to CRMC	Letter Proposal
Start Date (July 2022)	Contract is Duly signed by CRMC and GHD	Duly signed contract
Start Date + 1 Week (July 2022)	GHD submits Verification Plan and CRMC provides VCS Monitoring Report, Monitoring Plan, and PD	Verification Plan
Start Date + 2 Weeks (August 2022 – September 2022)	Verification Team reviews the documentation and formulates issues and provides an Issues Log to CRMC	Issues Log
Client Dependent (Up to 7 days) (August 2022 –, September 2022)	CRMC submits documentation to GHD addressing the issues raised in the Issues Log.	Not applicable
Issues Log Closeout (August 2022 – , September 2022)	Verification Team will review the additional supporting documentation and any changes to the PD or the Monitoring Report. If required, GHD provides CRMC with additional/revised issues. Upon closure of all issues GHD will provide the Draft Verification Report to the Internal Technical Reviewer.	Revised Issues Log, if applicable
Peer Review and Draft Report (September 2022)	Final review of the Monitoring Report and Draft Verification Report by the Technical Reviewer. Revisions to the Draft Verification Report to address Technical Review comments.	A request for any additional information required resulting from the Technical Review Draft Verification Report
Final Report (Early October 2022)	Revisions to the Draft Verification Report to address CRMC comments. Preparation of Final Verification Report and Statement.	Submit the Final Verification Report and Statement to Project Proponent/Technical Consultant. Project Proponent is responsible for submission of project documents to Verra: VCS to complete registration and issuance request

14. Closing

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

All of Which is Respectfully Submitted,

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APPENDIX B: FINDINGS ASSESSMENT

Findings Assessment
Greater New Bedford LFG Utilization Project
January 1 - June 30, 2022
Crapo Hill Landfill - Dartmouth Massachusetts

Rev. No.	Date Issued / Date Responses Received
0	September 14, 2022 / September 14, 2022

CL #	Clarification Request	Explanation/Response	Changes applied to Project Documents	Status
1	Please clarify why column Q in the tab "March22" is highlighted and what is meant by the header "DLST".	March 13 was Day Light Savings Time (DLST) and is highlighted to note that 23 hours occurred during March 13th instead of the normal 24 hours.	n/a	Closed
2	GHD identified instances of missing data within the NSTAR Power Reports. Please clarify reasoning for missing data.	No missing data was found for NSTAR Power Reports. Hours that show "-" is not missing data, rather "-" denotes 0.	n/a	Closed
3	GHD identified that the flare was operational for 11 days within the monitoring period. Please confirm how the LFG that was flared was incorporated into the baseline or project scenario for the monitoring	The reductions associated with the flare operation are not calculated and are not claimed for this monitoring period.	n/a	Closed
4	Please confirm if there have been any changes to site operations since the previous monitoring period.	No changes to site operations have occurred since the previous Monitoring Report.	n/a	Closed
5	GHD notes that no project emissions were included in the emission reduction calculations. Please explain why.	Exhibit 1 shows the emissions reduction of project emissions from electricity use utility and diesel backup	n/a	Closed
6	GHD notes that the value applied for LFG flow rate from the DIS contained within the Phase 1 area is 45.00cfm each month. Please clarify why this flow rate is a constant value and does not fluctuate.	During Janary 1, 2022 through June 30, 2022, the Initial District System consists of 9 remaining active wells measuring less than 5 cfm lower detection limit of each well. Accuracy of LFG flow is low below LFG flows of 5 scfm. CRMC used worst conservative case of 5 cfm from each remaining well.	n/a	Closed
CAR #	**Corrective Action Request**	**Explanation/Response**	**Changes applied to Project Documents**	**Status**
1	Within Exhibit 2, the value within cell E19 is rounded to zero decimal places. This results in a minor immaterial discrepancy as GHD completed recalculations with values that had not been rounded.	As the resulting discrepancy is immaterial,CRMC has elected not to make any changes to their Monitoring Report.	n/a	Closed

APPENDIX C: VERIFICATION DEED OF REPRESENTATION

VCS ISSUANCE DEED OF REPRESENTATION

BY

GHD SERVICES INC.

THIS DEED OF REPRESENTATION is made on September 26, 2022

BY

GHD Services, Inc., 455 Phillip Street, Waterloo, Ontario N2L 3X2, Canada (as **VVB**), as further described below.

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;

"**Approved GHG Program**" means a GHG Program that has been approved by the Verra Board, through a gap analysis, as a VCS Program approved GHG Program;

"**GHG**" means greenhouse gas;

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

"**Issuance Representor**" is the party to this Deed, as set out at the start of this Deed, being one or more of: (i) the Project Proponent; (ii) any entity to whom the Project Proponent has assigned all of its rights to the Project's Reductions for the entire Project Crediting Period; or (iii) any entity which can demonstrate it has sole rights in respect of the entire volume of a Project's Reductions where such Reductions have been verified and the corresponding Verification Report has been issued on or before 30 September 2009;

"**Monitoring Report**" means the document that records data to allow the assessment of the Reductions generated by the Project during a given time period in accordance with the monitoring plan set out in the Project Description, covering the Reductions generated from January 1, 2022 to June 30, 2022;

"**Project**" means Greater New Bedford LFG Utilization Project

"**Project Crediting Period**" means the time period for which Reductions 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 being set out in the *VCS Standard*;

"**Project Description**" means the document that describes the Project's Reduction activities and that uses either the *VCS Project Description Template* or the project description template specified by the relevant Approved GHG Program;

"**Project Documents**" means the documents required to register the Project and/or issue VCUs, as set out in VCS document *Registration and Issuance Process*;

"**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**" means a reduction or removal of one (1) metric tonne of CO_2 equivalent caused by the activities of the Project during the Project Crediting Period;

"**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;

"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 programs, and the verification of GHG emission reductions and removals;

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

"**Verification Period**" means the time period (January 1, 2022 to June 30, 2022) specified in the Verification Report during which the Reductions were generated and have been verified by the VVB;

"**Verification Report**" means the written report of the verification covering the Reductions generated by the Project during the Verification Period 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 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);

"**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;

1.2 Documents referred to in this Deed but not defined shall be the VCS Program documents to which the relevant definition relates, as published and updated by Verra from time to time.

2. REPRESENTATIONS

2.1 I comply with the definition of an "Issuance Representor", as set out in Clause 1 of this Deed, in relation to the Project.

2.2 I hereby represent and warrant that:

2.2.1 All factual information that I provide in relation to this Deed 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;

2.2.2 The Monitoring Report and any other Project Documents for which I am responsible, and am supplying to the Verra Registry and any other person in relation to the operation of the Project under the VCS Program Rules, are true and accurate in all material respects and do not contain any false, fraudulent or misleading statements or information;

2.2.3 I hold full and exclusive legal and equitable title and rights to all and any Reductions generated by the Project for which I am eligible to request VCU issuance during the Verification Period free and clear of all encumbrances; and

2.2.4 I have not submitted, sought, requested or received any recognition of the Reductions generated by the Project during the Verification Period and for which I am requesting VCU issuance from any GHG Program other than under the VCS Program or as any other form of GHG- or renewable energy-related environmental credit (including without limitation as renewable energy certificates), or I have provided evidence to the Verra Registry in accordance with the VCS Program Rules that any such credits have not been used and have been cancelled under the relevant environmental credit program.

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 Project Documents submitted to the Verra Registry for indirect, consequential, special, punitive or exemplary damages, including, without limitation, claims brought against Verra by Accountholders, Project Proponents, 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 Issuance Representor or any other party involved in the Project in any way under the VCS Program as a consequence of such amendment.

2.4 I hereby acknowledge that Verra:

2.4.1 Reserves the right to take action against an Issuance Representor where Verra deems, acting reasonably, that there has been a material erroneous issuance of VCUs in respect of the Project, as a result of the fraudulent conduct, negligence, intentional act, recklessness, misrepresentation or mistake of the Issuance Representor; and

2.4.2 Will determine such action having regard to the VCS Program Rules. Such action may include:

(a) Directing the Verra Registry to cancel erroneously issued VCUs;

(b) Requiring the Issuance Representor to cancel erroneously issued VCUs held in its Verra Registry account;

(c) Requiring the Issuance Representor to replace an equivalent number of VCUs from subsequent issuances of VCUs to the Project;

(d) Requiring the Issuance Representor to purchase and cancel an equivalent number of replacement VCUs; or

(e) Where the Issuance Representor or Project Proponent fails to compensate for the erroneous issuance of the VCUs, other action including without limitation the application of restrictions to the registry account activities of the Issuance Representor or Project Proponent until the compensation has been provided.

Verra will use reasonable efforts to work with the Issuance Representor to ensure that any adverse impacts on the Project Proponent of actions taken under this Clause 2.4 are minimised to the extent possible.

2.5 I further acknowledge that any action under Clause 2.4 may be commenced by Verra only in relation to VCUs for which the Verification Report is published on or after 8 April 2014 and up to the later of:

(a) Six (6) years after the date of issuance of the VCU referred to in Clause 2.4; or

(b) 12 months after the date upon which any second Verification Report with respect to the erroneously issued VCU is accepted on the Verra Registry.*

2.6 I acknowledge and agree that the claim periods contemplated in Clause 2.5 exist notwithstanding any other statute of limitations in applicable law.

* The intention is that a VCU will be issued following acceptance of the Verification Report for the Project. For some types of AFOLU projects in particular, the verification cycle may be longer than 6 years. In this regard, if the second Verification Report shows a VCU has been erroneously issued Verra will have an additional 12 months to deal with that issue. Note also that where a VCU is erroneously issued from the last Verification Report of the Project, Clause 2.5(a) applies.

3. **GOVERNING LAW AND JURISDICTION**

This Deed and any non-contractual obligations arising out of or in connection with it are governed by 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 Issuance Representor 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 Issuance Representor 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.

EXECUTED by GHD Services Inc. as a deed

_____	Signature of director
Gord Reusing _____	Name of director
_____	Signature of director/secretary
_____	Name of director/secretary