



# ENERGY EFFICIENCY AND SOLID WASTE DIVERSION ACTIVITIES WITHIN THE QUEBEC SUSTAINABLE COMMUNITY 8TH MONITORING REPORT



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### Summary:

- A description of the verification of the project**

Earthood Services Limited (hereafter, referred to as “Earthood”) has been contracted by Will Solutions Inc. to conduct the verification of the registered project activity (VCS ID 929) – “Energy efficiency and solid waste diversion activities within the Quebec Sustainable Community” regarding the relevant requirements of VCS program guidelines and standard (VCS Standard version 4.7/07/ and VCS Program Guide version 4.4/06/). The project proponent is Will Solution Inc. who use carbon finance to provide services for sustainable communities.

The verification includes confirming the implementation of the registered monitoring plan as described under VCS Project Description (RCP) version 1.2/01/ and the application of the monitoring methodology; VM0018 - Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community version 1.0/16/.

The grouped project focuses on energy efficiency and solid waste diversion activities to generate emission reduction.

- The purpose and scope of verification**

**Purpose:** the objective of the verification is to perform a complete and independent review of the registered grouped project against the applicable VCS requirements and monitoring methodology VM0018 - Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community version 1.0/16/, including compliance with registered monitoring plan. The verification is the periodic independent review and ex-post determination by Earthood of the monitored reductions in GHG emissions that have occurred because of the registered VCS grouped project activity.

**Scope:** The verification scope includes an independent and objective examination of the monitoring report (MR). The MR is evaluated considering the applicable criteria and decisions made by the VCS Secretariat, including the approved baseline and monitoring methodology and registered VCS RCP PD/01/. The verification was conducted in accordance with the VCS Standard v4.7/07/, VCS Program Guide v4.4/06/ as well as review of the registered RCP PD/01/, final validation report for crediting period renewal/03/ and monitoring methodology VM0018 v1.0/16/.

- The monitoring period**

The 8<sup>th</sup> monitoring period covered under this verification extends from 01/01/2023 to 31/12/2023 (including both days), which falls under the 2<sup>nd</sup> Crediting Period, from 01-01-2020 to 31-12-2029.

- **The method and criteria used for verification**

The verification process, which was conducted following Earthood's internal quality procedures, consisted of the following phases:

- i. Document review, involving
  - a) Review of data and information
  - b) Cross-checks between the information provided in the monitoring report and information from sources using all available resources without regard to the project proponent's information.
- ii. Site assessment, including
  - a) Evaluation of the registered VCS grouped project's implementation and operation in accordance with the registered VCS PD of RCP/01/ and MR of 8<sup>th</sup> MP/04/.
  - b) Evaluation of information flows for creating, collecting and reporting monitoring parameters.
  - c) Interviews with relevant stakeholders to ensure that the operating and data collection procedures in the current monitoring period are carried out in line with the registered monitoring plan.
  - d) Cross-referencing information from the monitoring report with data from other sources, such as project database, monitored data or other comparable data sources.
  - e) A review of the monitoring equipment, including calibration performance and observations of monitoring procedures in relation to the VCS PD of RCP and the methodologies chosen.
  - f) Examine the calculations and assumptions used to determine GHG data and emission reductions.
  - g) Identifying quality control and quality assurance systems in place to avoid or detect and remedy any errors or omissions in the provided monitoring parameters.
- iii. The final verification report and opinion, as well as the resolution of lingering difficulties.

- **The number of findings raised during verification**

A risk-based approach has been followed to perform this verification and there are no uncertainties associated with this verification. During the current verification, a total of 04 findings were raised which includes 01 Corrective Action request (CARs), 03 Clarification request (CLs), 00 Forward Action request (FARs) from current verification. There were 00 FARs from previous verification.

- **Any uncertainties associated with the verification**

The VCS MR/04/, emission reduction calculations/05/ and accompanying documents provided are all in compliance with VCS criteria. The verification was completed with a reasonable level of assurance and no uncertainties were found related to the grouped project verification.

- **Summary of the verification conclusion**

Earthood certifies that the project is implemented in accordance with the registered VCS PD of RCP/01/ and the applied baseline, and monitoring methodology. The implementation of the grouped project activity is in line with the information provided in the final monitoring report of 8<sup>th</sup> MP/04/. The monitoring procedures

are in line with the monitoring methodology/16/ and the emission reductions achieved during the current monitoring period are calculated without material misstatements. VVB's verification approach is based on the understanding of the risks associated with reporting of GHG emissions data and controls in place to mitigate these.

Earthood planned and performed the verification by obtaining evidence and other information, and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated. Based on the information evaluated, we confirm that the emission reductions from the grouped project, "Energy efficiency and solid waste diversion activities within the Quebec Sustainable Community" during the monitoring period 01/01/2023 to 31/12/2023 amounts to 635,357 tCO<sub>2</sub>e.

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# 1 INTRODUCTION

## 1.1 Objective

Will Solutions Inc. (PP) has contracted Earthood for verification services for the VCS project “Energy Efficiency and Solid Waste Diversion Activities within the Quebec Sustainable Community” (VCS ID: 929) in the province of Quebec, Canada against the requirements of VCS Program. The assessment team has reviewed the GHG data collected to date for the 8<sup>th</sup> monitoring period from 01/01/2023 to 31/12/2023 covered in the current verification.

The purpose of the verification is to review the monitoring results and verify that the applied methodology was implemented according to the registered monitoring plan and monitoring data, used to confirm the reductions in anthropogenic emissions by sources is sufficient, definitive, and presented in a concise and transparent manner. To establish that the project activity has been implemented in line with registered design and conservative assumptions, as documented, the monitoring plan, monitoring report, and the project's compliance with applicable VCS, and host party requirements are specifically verified.

This verification is a thorough and independent assessment of the registered project activity against the applicable VCS requirements by the VVB. The verification process shall determine whether registered project activity complies with the requirement of the latest VCS guidelines/6//7//8//9/, applicability conditions of the monitoring methodology/16/, relevant host country regulations and guidance issued by the VCS Board.

## 1.2 Scope and Criteria

The scope of this verification is:

- To assess the claims and assumptions made in the VCS monitoring report/04/ against the VCS criteria, including but not limited to, VCS standard version 4.7/07/, applied methodology/16/ and relevant rules and requirements established for VCS project activities.
- To verify the project implementation and operation with respect to the registered VCS PD of RCP/01/.
- To verify the implemented monitoring plan with the registered VCS PD of RCP/01/and applied baseline and monitoring methodology/16/.
- To verify that the actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the registered monitoring plan.

- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

The verification is not meant to provide any consulting to the project participants. However, stated requested for clarification and/or corrective actions requested may have provided inputs for improvement of the project design. The verification shall ensure that the reported emission reductions are complete and accurate in order to be certified. Describe the scope and criteria of the verification.

### 1.3 Level of Assurance

☐ Limited level of assurance

☒ Reasonable level of assurance

The approach used by Earthood for verification of the 8<sup>th</sup> monitoring period is built on a thorough understanding of the risks associated with reporting data on GHG emissions and the controls used to mitigate them. Earthood conducted the verification by reviewing substantiating evidence and other relevant information and explanations from sources to provide reasonable assurance that estimated GHG emission reductions are fairly reported.

Following are the types of evidence documents and records that were checked by the VVB during the current verification:

- Individual Quantification sheets
- Calibration certificates
- Billing records, weighing tickets, etc.

In the draft verification report (prepared by assessment team), the information provided is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable VCS and CDM (Clean Development Mechanism) requirements as appropriate. The technical review team is collectively required to possess technical expertise of all the technical area/sectoral scope the project activity relates to the on-site audit has been conducted and low risk of material misstatement or nonconformity has been identified by the assessment team. This has been further expounded in section 2.4 of this report.

All team members of the technical review team are independent of the verification team. The report approved by the Technical Manager has been endorsed by the CEO, who is overall responsible for ensuring quality, before final release. Further details of applicable procedures



and responsibilities concerning the Earthood Quality Management System (QMS) are available on its website ([www.earthood.in](http://www.earthood.in)).

In our opinion the estimated GHG emissions reductions were calculated correctly based on the approved baseline and monitoring methodology, VM0018: Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community/16/. The assessment result has a reasonable level of assurance in verification that GHG assertions are free of material errors, omissions, and misrepresentations. The documents and evidence reviewed are included under Appendix 3 of this report.

## 1.4 Summary Description of the Project

The Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community project document was prepared by Will Solutions Inc. to quantify and generate GHG emission reductions in conformance with the VCS Methodology VM0018 Energy Efficiency and Solid Waste diversion activities within a sustainable Community/16/.

SCSP (Sustainable Community Service Promotor) is a project to quantify and originate GHG emission reductions in conformance with VCS Methodology VM0018 Energy Efficiency and Solid waste Diversion Activities within a Sustainable Community (Version 1.0)/16/. The project targets a large range of Client Facilities, all located within geographical boundary of Province of Quebec, that are part of the industrial, commercial or institutional (ICI) sector, owned and operated by several distinct owners.

This project activity is concentrated over the large client facilities, which could be residential, institutional, and commercial, to bind them together in a common territory within the province of Quebec where the regional conditions and regulations for the different client facilities can be matched. This group project is comprised of Energy Efficiency (EE) and Solid Waste Diversion (SWD) activities. The eligibility of project activity instances is assessed under section 3.3 of this report.

The project is designed to consider the energy consumption and waste management activities across the client facilities with the following objectives:

- a. To gradually develop a sustainable community or cluster comprising of 2000 client facilities located in the province of Quebec, Canada with an estimated emission reduction of 34,250,000 tCO<sub>2</sub>e during a span of 2020 – 2029.
- b. To real time data collection, stimulation and improve ICI buildings sustainability
- c. To avoid methane emissions by diverting solid waste from landfills (SWD) through efficient waste management, minimizing energy demand and enhancing energy efficiency (EE) by financing small-scale activities executed by Industrial Commercial and Institutional (ICI) sites

All the EE and SWD activities are grouped into 10 Generic Project Activity Instances (PAIs) which are as follows:

- 1) Energy Efficiency
  - a. Biomass energy project
  - b. Saving energy on recycling activity
  - c. Heat recovery
  - d. Energy efficiency demand Side
  - e. Fuel switching
  - f. Energy conservation
  - g. Energy efficiency demand side (building/major renovations)
- 2) Solid Waste Diversion
  - h. Methane emissions avoidances
  - i. Torrefied biomass combustible
  - j. Land application of biosolids

The description of PAIs and client facilities (CFs) of this concerned monitoring period is shown in the table 1 below:

**Table 1:** Summary of number of PAIs and CFs in the 8<sup>th</sup> MP

Description	Client Facilities	PAIs
Total number of entities stated and verified under <b>concerned</b> MR of <b>8<sup>th</sup> MP</b>	90 CFs	2,645 PAIs
Total number of entities stated by the <b>previous</b> MR of <b>7<sup>th</sup> MP</b>	87 CFs	2,534 PAIs
Number of new entities <b>included into</b> the group in the concerned MP	3 new CFs	49 new PAIs (from 3 new & 2 old CFs)
Number of entities <b>excluded from</b> the emission reduction accounting in the current MP	33 CFs	189 PAIs

## 2 VERIFICATION PROCESS

The registered VCS project is undergoing 8<sup>th</sup> VCS verification under second renewal of crediting period, the approach adopted to ensure the quality of emission reductions is described in the following sections.

### 2.1 Method and Criteria

The verification process is conducted as per the internal Earthood QMS manual and in accordance with the criteria laid down by ISO 14064-2 and VCS requirements. The verification of the project consists of following steps:

- Contract with PP for the scope and appointment of verification team as well as the technical review team.
- Kick-off meeting-
  - The topics discussed in the meeting were timeline of the project, documents needed for the assessment, desk review timeline, audit findings timelines, and planning of site visit.
- Desk review-
  - Desk review was started after receiving the necessary documents from the PP including, but not limited to, monitoring report and emission reduction sheet of current monitoring period.
  - Cross check the information with the sources without limitations to the information provided by the project proponent.
- Follow up actions-
  - An on-site audit was held from 10/02/2025 to 12/02/2025, and the assessment team inspected the project design including, but not limited to, implementation status and monitoring mechanism.
  - Interview with stakeholders and relevant personnels of plants responsible for information given in the Project Description of RCP/01/.
- Reporting of findings-
  - Resolution of findings
  - Draft verification report
- Independent technical review-
  - The project documentation was reviewed by an internal technical reviewer.
  - Technical reviewer independently confirms whether the applicable GHG program requirements were objectively met or not, in addition to whether internal procedures were followed while arriving at the verification opinion. The technical reviewer may accept or reject the verification opinion prepared by the assessment team and gives the reasons.
  - The resolved findings may be opened at this stage, or new findings may be identified that are required to be addressed by assessment team and/or project proponents, as appropriate.
  - The technical reviewer is the decision maker on behalf of Earthood. A positive opinion is issued if all the findings have been satisfactorily resolved and in all other cases a negative opinion is issued unless the contract is terminated by either party before reaching the final opinion.

Earthood keeps all documents and records in a secure and retrievable manner for at least two years after the end of the project crediting period.

## 2.2 Document Review

The verification process for the project primarily entails a comprehensive examination of the VCS PD (RCP)/01/ and its related documents, as outlined in detail in Appendix 3 of this document. This assessment is carried out by a verification team following a defined protocol. The team conducts cross-referencing between the information provided in the VCS PD (RCP) and data from sources other than those used by the Project Proponent, leveraging their sector-specific or local expertise. When necessary, independent background investigations are undertaken.

Verification primarily involves a thorough document review of the submissions made at various assessment stages. The assessment team, guided by specific protocols, reviews the information presented in the documents and compares it with data from sources other than those utilized by the Project Proponent, if available. Additionally, independent background investigations are conducted. Earthood conducted a desk review as follows:

- a) A review of the data and information to ensure their completeness.
- b) An examination of the monitoring plan, monitoring methodology (including relevant tools), and, when applicable, the standardized baseline employed. Particular attention is paid to measurement frequency, the quality of project technology, and the quality assurance and quality control procedures.

An assessment of data management and the quality assurance and quality control system in the context of their impact on the generation and reporting of emission reductions.

## 2.3 Interviews

The assessment team has carried out an onsite audit to verify the information included in the project documentation and to gain additional information regarding the compliance of the project with the registered monitoring plan and requirements of the applied methodology.

The onsite audit and interviews at the project location were conducted from 10/02/2025 to 12/02/2025 by the assessment team. During the audit/18/, interviews of the personnels of client facilities were conducted to verify the details regarding the techniques, metering instruments, and the process involved in the data collection.

The major topics covered during the interview included:

- Implementation and operation of project activities, including the project boundary, technology, project equipment, and monitoring and metering equipment, as per the registered PDD and previous verification.
- Management and monitoring procedures implemented at the project site.
- Physical inspection of the project activity, including a site visit and interviews with monitoring and plant personnel.
- Review of evidence and supporting documentation.

- Review of monitored data and relevant documents in accordance with the registered monitoring plan and the applied monitoring methodology.
- Review of emission reduction (ER) calculations in line with the applied methodology and relevant tools.

The table below includes information on the interviewees:

S.No.	Name	Affiliation	New or Old CF	Date of interview
1.	Claudia Lesage	GHG Quantifications Manager (Will Solutions)	-	10/02/2025 to 12/02/2025
2.	Anne Ménard	GHG Auditor (Will Solutions)		
3.	Christophe Kaestli	Consultant (CertiConseil)		
4.	Alain Durand	CF-0708	Old	10/02/2025
5.	Yolaine Lalande			
6.	Mélanie Blais	CF-0707	Old	11/02/2025
7.	Benjamin Leblanc			
8.	Lucien Lalonde	CF-0702	Old	11/02/2025
9.	Joel Charest	CF-0122	New	11/02/2025
10.	Anthony Bergeron	CF-1510	Old	12/02/2025
11.	Kelly-Ann Forbes			
12.	Khadija Babi	CF-1204	Old CF (with New PAI included during this MP)	12/02/2025
13.	Pierre Lelievre			
14.	Martin Giroux	CF-0710	New, but excluded from the project activity	10/02/2025

## 2.4 Site Visits

As previously discussed in the section above, an onsite-audit inspection was conducted in line with para 4.1.13 of the VCS standard, version 4.7/7/, which states “Where a site visit to facilities and/or project areas is not required under Section 4.1.12 the validation/verification body shall identify whether a site visit is needed based on an independent risk assessment. Such risk assessment shall identify the risk of a material misstatement or nonconformity with the audit criteria. Where it is determined that no site visit is required, the validation/verification body shall justify and document the rationale for the decision.”.

This is the 8<sup>th</sup> verification of this project activity, with no FARs applicable for the current MP. As stated above, the onsite audit was not mandatory for this verification process. While an onsite audit was not mandated, as per para 4.1.13 of VCS Standard v4.7, the assessment team conducted the onsite audit from 10/02/2025 to 12/02/2025 to carry out the following:

- An assessment of the implementation and operation of the registered project activity as per registered VCS RCP PD/01/ and MR/04/.
- A review of information flows for generation, aggregation and reporting of the monitoring parameters.
- Interview with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the registered monitoring plan in the PD/01/.
- An assessment of the eligibility criteria for the new PAIs.
- A cross-check between information provided in the monitoring report and data from other sources such as CF and PAI participation tracker sheets for MP7 and MP8, technical specifications, or similar data sources.
- A review of calculations and assumptions made in determining the GHG data and emission reduction.
- Relevant QA/QC procedures were checked to prevent, identify, and correct, any error in the reported monitoring parameters.

#### **VVB's Sampling Approach:**

The project proponent has not applied any sampling regarding data monitoring at PAI level and monitored all the data throughout the participating CFs and PAIs. However, the verification team has applied sampling as per the para 27 of Standard of sampling and surveys for CDM project activities and programme of activities, v9.0/27/, which states *“When the project participants or the coordinating/managing entity have not applied a sampling approach, the DOE may apply a sampling approach, choosing a different confidence/precision than the ones indicated in paragraph 11 above, provided that samples are randomly selected and are representative of the population.”*.

VVB has considered all the CFs reported in the MR as the population to select the samples. There were 91 CFs under the initial monitoring report. Out of these 33 CFs were not generating ERs and are excluded from the current MP. The assessment team has applied the confidence/precision levels of 90/30 to determine the sample size for the 58 CFs and obtained 7 minimum sample size using online sample size calculator website ‘calculator.net’. These 7 samples have been picked considering distribution of new/old PAIs and ER contribution across the CFs.

The distribution and contribution of CFs and PAIs were as follows:

	Total Number of	Total number of PAIs	ER Contribution (%)	Number of sample CFs should be	Number of sample CFs selected by the

	associated CF			selected as per the ER contribution	assessment team
Old CFs with old PAIs	54	2,458	88.85	05	04
New CFs with new PAIs	4	32	11.08	01	02
Old CFs with new PAIs	2	19	0.06	01	01
Total	58	2	100	07	07

The screenshots of selected samples are shown in Appendix 7 of this report.

The population size is 2,456 PAIs and 57 client facilities (CFs), and the PP has monitored all the client facilities and PAIs. The verification team has targeted 7 CFs (4 old CF, 2 new CF and 1 old CF with new PAIs) for physical visit and data verification. The following 7 samples were selected as per the audit plan:

1. CF-0122
2. CF-0702
3. CF-0707
4. CF-0708
5. CF-0710
6. CF-1204
7. CF-1510

After the site visit, PP has removed one of the new client facilities (CF-0710) which was part of the visited sample from the project activity due to the lack of evidence for the ER claims. Additionally, the assessment team has checked and verified the data of remaining 3 CFs (CF-0113, CF-0216 and CF-1002) with new PAIs during the desk review. Therefore, the assessment team has verified the data of total 9 CFs, out of the 90 CFs. Thus, meeting the requirement of minimum sample size determined in line with the above referred sampling standard.

The final verified distribution of remaining client facilities (CFs) after exclusion of one client facility (CF-0710), and PAIs accounted for during the monitoring period is detailed in the table below:

	Client Facilities (CFs)	PAIs
Numbers from previous MP	87	2,534
Added during the current MP	3	49 (30 PAIs from 3 new CFs and 19 PAIs from 2 old CFs)
Generating ERs during the current MP	57	2,456

Excluded (i.e. not claiming credits) during this MP	33	189
Total numbers considered in the current MP	90	2,645

## 2.5 Resolution of Findings

This section represents the conclusions from the verification of the project activity. The results of the document review, site visit evaluations and interviews are presented in this section. CARs, CLs and FARs are used to correct material inconsistencies discovered during verification.

Corrective action requests (CARs) are issued where:

- Mistakes have been made with a direct influence on project results requiring adjustments of the VERs/VCUs monitoring report.
- Applicable methodological specific requirements have not been met.
- There is a risk that emission reductions cannot be monitored or calculated.

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

In the context of FARs, risks have been identified which may endanger the delivery of high-quality emissions reductions in the future, i.e., by deviations from standard procedures as defined by the monitoring plan. Consequently, such aspects should receive a special focus during the next consecutive verification. A FAR may originate from lack of data sustaining claimed emission reductions. FARs do not relate to VCS requirements for registration.

CARs and CLs are to be resolved or closed out if the PP modifies the project description, rectifies the PD or provides adequate additional explanations or evidence that satisfies the concerns. If this is not completed, the project activity cannot be recommended for registration under VCS registry. A total of 04 findings were raised where 01 CARs, 03 CLs were raised during the verification and 00 FARs from current verification were raised. Also, there was no FAR identified from previous verification. All the findings that are raised and communicated to project participants during the verification are included in Appendix 5.

### 2.5.1 Forward Action Requests

The project activity is undergoing 8<sup>th</sup> verification in VCS and no FARs were raised during this assessment.



## 2.6 Eligibility for Validation Activities

Not Applicable as VVB is accredited for the scope of validation.

# 3 VALIDATION FINDINGS

## 3.1 Methodology Deviations

There are no deviations to the applied methodology, VM0018 v1.0/16/, during the current verification. Therefore, this section is not applicable.

## 3.2 Project Description Deviations

PP has sought deviation for values of the following ex-ante parameter: oxidation factor (OX), fraction of degradable organic carbon (DOCf), fraction of degradable organic carbon by weight (DOCj), methane correction factor (MCF), and decay rate (kj). The project deviates from the registered RCP PD/1/ and applied default emission factor values from the U.S. Environmental Protection Agency Waste Reduction Model (EPA WARM) (version 16)/19/ instead of default values of CDM Tool 04.

The VVB has verified the applicability of deviation identified in the MR/4/ and confirmed that these values were appropriately applied in the emission reduction calculations. The deviation was accepted by the verification team as the deviation is applied to quantify the emissions by applying US EPA WARM emission factors/19/ specific for geographical region (Quebec, Canada) and does not significantly impact the emission reductions, the applicability of the methodology, additionality and appropriateness of the baseline scenario.

VVB confirms that the proposed deviation does not impact on any of the following, documenting the assessment of each separately:

- The applicability of the methodology. There is no applicability condition related to the above-mentioned ex-ante parameters.
- Additionality and scale: The value applied does not interfere with the additionality method selected by the PP or change the scale of the grouped PA.
- The appropriateness of the baseline scenario. The defaults are sourced from regional published data which is reliable and more accurate as compared to general default values.

Section 3.2.2 of the MR was reviewed to confirm that the deviation is appropriately described and justified, and whether the project remains in conformance with the VCS rules outlined under para 3.21.1 of VCS standard v.4.7/7/. Thus, the project deviation is valid.

### 3.3 New Project Activity Instances in Grouped Projects

In the current MP, 3 client facilities (CF IDs: 0122, 0216 and 1002) and 49 PAIs (30 from 3 new CFs (CF IDs: 0122, 0216 and 1002) and 19 from 2 old CFs (CF IDs:113 and 1204) have been newly added to this grouped project activity and rest are old. The eligibility criteria and its assessment for all the new PAIs are given in the table below:

Sl. No.	Criteria	Justification by the PP	Assessment by the VVB
<b>Eligibility Criteria as per the registered PD</b>			
1.	Be implemented after January 1 <sup>st</sup> 2015	All the new PAIs have their respective start date after 01/01/2015	The start date of all the CFs with new PAIs was checked from agreements with the client facilities/28/.
2.	Must be located inside the Quebec territory	All the PAIs are located inside the Quebec territory	The location of all client facilities and PAIs within it have been confirmed to lie within Quebec territory as confirmed from the kml file provided by the PP/29/. Additionally, it was confirmed during the on-site visit/18/ to the sampled client facilities.
3.	Be a registered member of the grouped project	All the new client facilities have signed the adhesion contract.	Agreement with new facilities were provided by the PP/28/ to confirm that CFs are registered member of this grouped PA.
4.	Use of a technology or measure similar to the Generic PAIs specified in the PD	All the new PAIs are associated to a generic PAIs.	All the measures/ technologies mentioned in tab 'New PAIs' of ER sheet (titled 'ID929-Annex B-MP8-Confidential-(2023) - 2024.xlsx') /5/ were checked to confirm that the technologies and measures are within the generic PAIs specified in the PD. The same was also confirmed through

			the site visit/18/ for sampled client facilities.
5.	Be auditable and verifiable	PP conducts an internal audit to all the new PAIs and relevant evidence has been provided by the CF to verify the integrity of the data.	Internal Audit Checklists/30/ have been provided by PP to confirm that new CFs are auditable and verifiable.
6.	GHG reductions are inferior to 5,000 tCO <sub>2</sub> e/year capacity limit	All the PAIs which are generating GHG reduction more than 5,000 tCO <sub>2</sub> e/year have been capped at the capacity limit.	ER sheet/5/ was reviewed to confirm that the PAIs have GHG reduction less than. 5,000 tCO <sub>2</sub> e/year. For the PAIs achieving ERs above the limit, the value will be capped.
<b>Applicability conditions of methodology (conditions not addressed above)</b>			
1.	This methodology is applicable for grouped projects for the quantification of direct and indirect reductions of GHG emissions arising from energy efficiency and waste management project activity instances at client facilities.	All the new PAIs that are quantifying the GHG emission reduction have implemented either the energy efficiencies or waste diversion activities or both.	<p>The project includes technologies and measures falling under 10 generic PAIs:</p> <p>Energy Efficiency</p> <ul style="list-style-type: none"> <li>• Biomass energy project</li> <li>• Saving energy on recycling activity</li> <li>• Heat recovery</li> <li>• Energy efficiency demand Side</li> <li>• Fuel switching</li> <li>• Energy conservation</li> <li>• Energy efficiency demand side (building/major renovations)</li> </ul> <p>Solid Waste Diversion</p> <ul style="list-style-type: none"> <li>• Methane emissions avoidances</li> <li>• Torrefied biomass combustible</li> <li>• Land Application of biosolids</li> </ul>

			Thus, the applicability condition has been met. The same was also confirmed through the site visit for sampled client facilities/18/.
2.	Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.	All the new PAIs are located in residential, commercial, institutional, or industrial buildings.	Sampled client facilities were visited to confirm that PAIs are located in either a residential, commercial, institutional, or industrial buildings/18/. Additionally, agreement/28/, photos of installed technologies/42/ and invoices of material (electricity, biomass, propane, diesel, etc.) consumed/41/ were checked by the assessment team to confirm that client facilities with new PAIs are also located in residential, commercial, institutional, or industrial buildings.
3.	Use and Application of Technology and Measures of the PAI (as per the methodology)	All the new PAIs has correctly mentioned the use of technology or measure used at their location for GHG emission reduction and falls under either scope 3 or scope 13 activities or both.	Sampled client facilities were visited to confirm that technology or measure used at their location for GHG emission reduction and falls under either scope 3 or scope 13 activities or both/18/. Further, it was confirmed by the assessment team through the photos of installed technologies/42/ and invoices/41/.

**Eligibility condition as per VCS standard version 4.7/7/:**

Conditions	PP's justification	VVB assessment
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<p>3.6.16 Grouped projects shall include one or more sets of eligibility criteria for the inclusion of new project activity instances. At least one set of eligibility criteria for the inclusion of new project activity instances shall be provided for each combination of project activity and geographic area specified in the project description. Where grouped projects include multiple baseline scenarios or demonstrations of additionality, such projects will require at least one set of eligibility criteria for each combination of baseline scenario and demonstration of additionality specified in the project description. A set of eligibility criteria shall ensure that new project activity instances:</p> <ol style="list-style-type: none"> <li>1) Meet the applicability conditions set out in the methodology applied to the project.</li> <li>2) Use the technologies or measures specified in the project description.</li> <li>3) Apply the technologies or measures in the same manner as specified in the project description.</li> <li>4) Are subject to the baseline scenario determined in the project description for the</li> </ol>	<ol style="list-style-type: none"> <li>1. Already demonstrated above.</li> <li>2. Already demonstrated above.</li> <li>3. Already demonstrated above.</li> <li>4. The baseline scenarios of all the new PAIs have been demonstrated. The details for each PAIs are stated under section 3.3 of the MR.</li> <li>5. Additionality of each new PAI have been demonstrated under section 3.3 of MR.</li> </ol>	<ol style="list-style-type: none"> <li>1. Applicability conditions of applied methodology VM0018/16/ are assessed in the previous table in this section.</li> <li>2. and 3. assessed under first condition of methodology applicability above.</li> <li>4. The client facilities personnel visited were interviewed for the condition existing prior to the installation of technologies/measures during the on-site visit/18/. The assessment team confirms that the PAIs were subject to baseline scenario determined in the project description for specified project activity and geographical area.</li> <li>5. Additionality of respective PAIs has been demonstrated via investment analysis and IRR sheet/31/, provided by PP for each new PAI inclusion.</li> </ol>
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<p>specified project activity and geographic area.</p> <p>5) Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area. For example, the new project activity instances have financial, technical and/or other parameters (such as the size/scale of the instances) consistent with the initial instances, or face the same investment, technological and/or other barriers as the initial instances.</p>		
<p>Inclusion of New Project Activity Instances 3.6.17</p> <p>Grouped projects provide for the inclusion of new project activity instances subsequent to the initial validation of the project. New project activity instances shall:</p> <p>1) Occur within one of the designated geographic areas specified in the project description.</p> <p>2) Conform with at least one complete set of eligibility criteria for the inclusion of new project activity instances. Partial conformance with multiple sets of eligibility criteria is insufficient.</p> <p>3) Be included in the monitoring report with sufficient technical, financial,</p>	-	<p>1. The location of all client facilities and PAIs within it have been confirmed to lie within Quebec territory as confirmed from the kml file provided by the PP/29/.</p> <p>2. All eligibility criteria are confirmed to be met in this section.</p> <p>3. MR/4/ includes sufficient technical, financial and geographical and other relevant details of new CFs and its PAIs.</p> <p>4. Ownership has been confirmed through agreement with PP and client facilities/28/.</p> <p>5. It has been confirmed through agreement with PP and client facilities/28/ that</p>

<p>geographic, and other relevant information to demonstrate conformance with the applicable set of eligibility criteria and enable evidence gathering by the validation/verification body.</p> <p>4) Have evidence of project ownership, in respect of each project activity instance, held by the project proponent from the respective start date of each project activity instance (i.e., the date upon which the project activity instance began reducing or removing GHG emissions).</p> <p>5) Have a start date that is the same as or later than the grouped project start date.</p> <p>6) Only be eligible for crediting from the later of start date of the project activity instance or the start of the verification period in which they were added to the grouped project, through to the end of the total project crediting period.</p> <p>7) Not be or have been enrolled in another VCS project.</p> <p>8) Adhere to the clustering and capacity limit requirements for multiple project activity instances set out in 3.6.8 – 3.6.9.</p>		<p>the start dates of PAIs are after the start date of grouped project activity.</p> <p>6. The input values in ER sheet/5/ were reviewed along with supportive evidence for respective PAIs and MR/4/ and it was confirmed that the projects are claiming ERs only after start date of CF inclusion.</p> <p>7. PAIs have not been part of any other VCS project as confirmed from VCS registry/32/.</p> <p>8. Clustering limits requirements are assessed in the same table below in line with VCS standard version 4.7 para 3.6.8. and 3.6.9/7/.</p>
3.6.18 Where inclusion of a new project activity instance	-	The new client facilities are being added within 2 years of

necessitates the addition of a new project proponent to the project, such instances shall be included in the grouped project description within two years of the project activity instance start date or, where the project activity is an AFOLU activity, within five years of the project activity instance start date. The procedure for adding new project proponents is set out in the Registration and Issuance Process.		contract signing with the PP/28/.
3.6.8 The project proponent shall include in a singular project all project activity instances within ten kilometers of another instance of the same project activity and with the same project proponent (i.e., instances of the same project activity may not be spread across more than one project if they are within ten kilometers of each other).	-	The project proponent has only one grouped project activity in Quebec region.
3.6.9 Where a capacity limit applies to a project activity included in the project, no project activity instance shall exceed such limit.	-	ER sheet/5/ was reviewed to confirm that the PAIs have GHG reduction less than. 5,000 tCO <sub>2</sub> e/year. For the PAIs achieving ERs above the limit, the value has been capped.

Conclusion:



The verification team confirms that the new PAIs meet the eligibility criteria as set out in the registered RCP PD/1/ and VCS standard version 4.7/7/. The assessment team has checked various documents such as Agreement between Will Solutions and Client Facilities/28/, kml file/29/, Will solutions' internal audit report/30/, Investment analysis sheet of all the CFs with new PAIs/31/, Invoices (electricity invoices generated by the local government authority and truck scale tickets)/41/ and photos of installed technologies for new PAIs/42/ and confirmed that the eligibility conditions have been met by the new PAIs included under the facilities of VCS grouped PA-929.

### 3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes

☒ No

## 4 VERIFICATION FINDINGS

### 4.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
Audit history	The details of the audit history as described under section 1.2 of the MR/4/ have been confirmed from the publicly available information and previous verification reports/13.b//14.b/ on the project webpage and are found consistent.
Double counting and participation under other GHG programs	<p>The project is not receiving or seeking credit for reductions and removals from a project activity under another GHG program. VVB has confirmed through independent assessment that there are no similar project activities under VCS or any other GHG program in the same province of the host country, Canada.</p> <p>PP has quantified the net GHG emissions reductions for the vintage years from 01/01/2019 to 31/12/2023, which were excluded from the scope of the current monitoring period, as specified in Appendix 3 of the MR. The VVB has assessed and verified the quantification of excluded ERs and confirmed that it will not be serialized under the VCS program.</p>

No double claiming with emissions trading programs or binding emission limits	The GHG emission reductions or removals generated by the project have not been included in an emissions trading program or any other mechanism that includes GHG allowance trading as confirmed through the independent research across other programs.
No double claiming with other forms of environmental credit	The project has not received or sought any other form of environmental credit or has become eligible to do so since validation or previous verification. Further information can be found under appendix 2 of the MR/4/. The same has been confirmed by the VVB through independent research across other programs.
Supply chain (scope 3) emissions double claiming	The project activity reduces or removes the GHG emissions by implementing energy efficiency measures or by diversion of waste. Thus, the project activity does not affect the emission footprint of any products that are part of a supply chain.
Sustainable development contributions	<p>The project activity contributes to the six SDGs as mentioned under section 1.12 of the MR/4/.</p> <ul style="list-style-type: none"> <li>SDG 9; Indicator 9.3, Number of client facilities (SMEs) with access to financial services: The project activity has provided 800,000 Canadian dollars for 2,456 PAIs and 57 client facilities during the current monitoring period as verified through Sustainability Report for Fiscal year 2023-24/33/.</li> <li>SDG 10; Indicator 10.2, empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status: The project activity has supported 8.8 % of the Quebec's population, which are mainly located in remote areas during the current MP as verified through Sustainability Report for Fiscal year 2023-24/33/..</li> <li>SDG 11; Indicator 11.A, support positive economic, social, and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning: The project activity has supported 160 municipal organisations, which is 14% of the total 1,130 Quebec's municipalities during the current MP as verified through Sustainability Report for Fiscal year 2023-24/33/..</li> </ul>

	<ul style="list-style-type: none"> <li>SDG 12; Indicator 12.5, substantially reduce waste generation through prevention, reduction, recycling and reuse: The project activity has avoided 450,701 tCO<sub>2</sub>e emissions from waste generation, recycling, reuse, and composting during the current MP as confirmed through crosschecks between the ER sheet/5/ and supportive evidence for emission reduction claims against respective PAIs for energy efficiency and waste diversion activities.</li> <li>SDG 13; Indicator 13.0, Tonnes of greenhouse gas (GHG) emissions avoided and reduced: The project activity has avoided and/or reduced 635,357 tCO<sub>2</sub>e emissions during the current MP as confirmed from the ER sheet/5/.</li> <li>SDG 17; Indicator 17.17, Number of contributing NGO and partnership to the sustainability movement: No changes were observed from the previous verification during the current MP as verified through Sustainability Report for Fiscal year 2023-24/33/.</li> </ul>
Additional information relevant to the project	PP has excluded the personal details of the client facilities from the public versions. The personal details of the client facilities are available in the confidential version. This has been verified by the assessment team that only the personal details of the client facilities have been excluded from the public versions of the documents.

## 4.2 Safeguards and Stakeholder Engagement

### 4.2.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	The stakeholders were identified at the time of validation and have not changed since then as the scope of PAI inclusion remained unchanged throughout the first and second crediting period. The same has been evident from the registered monitoring and verification reports of previous MPs/13/14/ and confirmed during on-site audit/18/. Therefore, not applicable.

Legal or customary tenure/access rights	The project does not impact on any legal or customary tenure issues or access rights as this is not a land use project. Therefore, not applicable
Stakeholder diversity and changes over time	No changes in diversity are observed.
Expected changes in well-being	No expected changes are observed.
Location of stakeholders	The stakeholders were identified at the time of validation and have not changed since then. Therefore, not applicable.
Location of resources	Not applicable for this project type.

#### 4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Ongoing consultation	PP has ongoing communication with stakeholders via social media platforms, blogs, web pages, press releases, corporate brochures and newsletters/25/. PP also posts information under news and media section of Wills Website and provided communication channels through email and phone calls, which is available on the PP's website /26/. PP has also established platform for any grievances of stakeholders/20/.
Date(s) of stakeholder consultation	01-01-2023 to 31-12-2023
Communication of monitored results	PP publishes annual sustainability reports on the website/33/ to convey the monitoring results.
Consultation records	Consultations records are kept by the quantification and sales manager of the PP/25/.
Stakeholder input	No input, concerns or comments were received from the stakeholders during the current MP/25/.

### 4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	The project activity does not infringe on property rights of client facilities or PAIs. Client facilities have the full ownership rights/28/ of their properties. PP only coordinates with the client facilities and does not claim or control the properties or the operations of the client facilities.
Outcome of FPIC discussion	<p>PP has agreements with all the client facilities/28/, which confirms the consent of every client facility with this project.</p> <p>The grouped project activity does not include any activities that can impact the LPs and LCs rights such as extraction of natural resources, land development, relocation of people or forced physical or economical shift. This grouped project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.</p>

### 4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Grievance received and steps taken to resolve the grievance including the outcomes of the resolution	<p>No grievances were received during the concerned MP.</p> <p>PP has established the grievance mechanism through emails, phone calls and contact forms. The information on these grievance registration channels is listed on the PP's website/20/.</p>
Grievance redress procedure	No grievances were received during the concerned MP as confirmed during the interview conducted with facility personnel during the site visit/18/.

### 4.2.5 Public Comments

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
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No comments received	Not applicable as no public comments are received during the current MP.	VVB has cross-checked the VCS project webpage/21/ and found that no public comments are received during the current MP.
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## 4.2.6 Risks to Local Stakeholders and the Environment

### 4.2.6.1 Management Experience

Wills Solutions Inc. is a certified B Corp/34/ located in Quebec, Canada with more than 10 years of carbon experience (<https://solutionswill.com/en/about-us/>). Having experience in reducing greenhouse gas emissions through voluntary carbon markets with Sustainable Community projects, the project management team is well aware of the social well-being of the local stakeholders and surrounding environments. As evident from the local stakeholder engagement process, the technology has been explained in detail with pros and cons associated with the project execution with all the concerns addressed by Wills' management team/35/. The project proponent has obtained B Corp certification proving the Wills' evolution against the social, environmental and governance (ESG) mandates, thereby complying with all the requirements for a well-structured holding/34/. Thus, VVB is of opinion that the sufficient evidence has been gathered by the project proponent with experienced management to assess the various risks associated with project activity to stakeholders and environment.

### 4.2.6.2 Risk Assessment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Natural and human induced risks to stakeholders' wellbeing	<p>No risk identified.</p> <p>PP has established the ongoing communication/25/ and grievance mechanism/20/ with the stakeholders through various respective means for any natural or anthropogenic risk imposing on the stakeholders. The project activity only focuses on the implementation of energy efficiency measures and waste diversion activities. Thus, there are no natural or human induced risks that originate through the project activity to the stakeholders.</p>
Risks to stakeholder participation	<p>No risk identified.</p> <p>PP has established the ongoing communication/25/ and grievance mechanism/20/ with the stakeholders through various respective means for any risk imposing to the stakeholders. The project activity only focuses on the implementation of energy efficiency measures and waste diversion activities. Thus, it does not pose any risk to the stakeholders.</p>

Working conditions	No risk identified as the project proponent has established various steps to ensure the working conditions in the client facilities, such as legal framework, proactive enforcement, ongoing education and training, along with the laws/36/ and dedicated enforcement agencies/37/ in Quebec. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.
Safety of women and girls	No risk identified as the project proponent has established various steps to ensure the safety of girls and women, such as legal framework, proactive enforcement, ongoing education and training, along with the laws/36/ and dedicated enforcement agencies/37/ in Quebec. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.
Safety of minority and marginalized groups, including children	No risk identified as the project proponent has established various steps to ensure safety of minority and marginalized groups, such as legal framework, proactive enforcement, ongoing education and training, along with the laws/36/ and dedicated enforcement agencies/37/ in Quebec to ensure the safety of minorities and marginalized groups. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.
Pollutants (air, noise, discharges to water, generation and release of hazardous materials and chemical pesticides and fertilizers)	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities. The disclosure of the environmental impacts associated with the project activity are stated under the published annual reports/26//33/. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.

## 4.2.7 Respect for Human Rights and Equity

### 4.2.7.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination	No risk identified as the project proponent has established various steps such as legal framework, proactive enforcement, ongoing education and training, along with the laws/36/ and dedicated

	<p>enforcement agencies/37/ in Quebec to ensure no discrimination at client facilities and PAIs under consideration in current project activity. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.</p>
Sexual harassment	<p>No risk identified as the project proponent has established various steps such as legal framework, proactive enforcement, ongoing education and training, along with the laws/36/ and dedicated enforcement agencies/34/ in Quebec to ensure no sexual harassment at client facilities and PAIs under consideration in current project activity. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.</p>
Gender equity in labor and work	<p>No risk identified as the project proponent has established various steps such as legal framework, proactive enforcement, ongoing education and training, along with the laws/36/ and dedicated enforcement agencies/37/ in Quebec to ensure gender equity in labor and work at client facilities and PAIs under consideration in current project activity. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.</p>
Forced labor	<p>No risk identified as the project proponent has established various steps such as legal framework, proactive enforcement, ongoing education and training, along with the laws/36/ and dedicated enforcement agencies/37/ in Quebec to ensure no forced labor deployment at client facilities and PAIs under consideration in current project activity. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.</p>
Child labor	<p>No risk identified as the project proponent has established various steps such as legal framework, proactive enforcement, ongoing education and training, along with the laws/37/ and dedicated enforcement agencies/37/ in Quebec to ensure no child labor deployment at client facilities and PAIs under consideration in current project activity. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.</p>
Human trafficking	<p>No risk identified as the project proponent has established various steps such as legal framework, proactive enforcement, ongoing education and training, along with the laws/36/ and dedicated</p>



enforcement agencies/37/ in Quebec to ensure no cases of human trafficking are observed at client facilities and PAIs under consideration in current project activity. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.

#### 4.2.7.2 Human Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified	Project proponent has established various steps such as legal framework, proactive enforcement, ongoing education and training, along with the laws/36/ and dedicated enforcement agencies/37/ in Quebec to ensure the human rights at client facilities and PAIs under consideration in current project activity. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.

#### 4.2.7.3 Indigenous Peoples and Cultural Heritage

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified	Project activity only focuses on the implementation of energy efficiency measures and waste diversion activities. Project proponent ensures compliance with the laws/36/ and dedicated enforcement agencies/37/ in Quebec to ensure no risks occur to indigenous people and cultural heritage through current project activity. PP also has the B Corp certification/34/, which demonstrates the commitment of the organization towards their workers and community.

#### 4.2.7.4 Property Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified	The project activity does not infringe on property rights of client facilities or PAIs. Client facilities have the full ownership rights/28/ of their properties. PP only coordinates with the client facilities and does not claim or control the properties or the operations of the client facilities.

#### 4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	PP guides the client facilities by recommending and qualifying the PAIs in energy efficiency and waste diversion activities and provides the 80% sale of the auditable carbon credits back to the client facilities/28/.
Benefit sharing during the monitoring period	PP guides the client facilities by recommending and qualifying the PAIs in energy efficiency and waste diversion activities and provides the 80% sale of the auditable carbon credits back to the client facilities/28/.

#### 4.2.8 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.
Soil degradation and soil erosion	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.
Water consumption and stress	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.

##### 4.2.8.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species or habitat	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.
Areas needed for habitat connectivity	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.

Evidence gathering activities, evidence checked, and assessment conclusion	
Habitats for rare, threatened, and endangered species	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.
Areas for habitat connectivity	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.

#### 4.2.8.2 Introduction of Species

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
Not Applicable	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
Not Applicable	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.

Evidence gathering activities, evidence checked, and assessment conclusion	
Invasive species	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.

#### 4.2.8.3 Ecosystem conversion

Item	Evidence gathering activities and evidence checked
Ecosystem conversion	No risk identified as the project activity only focuses on the implementation of energy efficiency measures and waste diversion activities.

### 4.3 Accuracy of Reduction and Removal Calculations

The project monitoring has been carried in accordance with the registered VCS PD of RCP/01/ and the applied methodology /16/. The monitoring plan laid in the registered PD is being followed at the all the sites falling under participating CFs/1//4/. The assessment team has verified the information flow (from data generation, aggregation, to recording, calculation and reporting for these parameters including the values) in the MR/4/. The emission reductions are based on the energy efficiency and solid waste diversion measures.

The verification team checked the quantification of both baseline and project emissions from client facilities with the individual quantification sheets shared by the Project proponent. The quantification sheets contain financial, commercial and/or technical information that belong to the Client facilities which are commercially sensitive information as per the section 2 of the VCS Program Definitions v4.5/8/ (refer to the definition of “Commercially Sensitive Information”).

The baseline situation of the new PAIs included in this verification period was assessed by the verification team against the individual client facility quantification sheets which demonstrate the baseline scenario, energy type and the waste stream depending on the sectoral scope of the project activity. The baseline scenario for a project activity falling under sectoral scope 3 involves the consumption of fossil fuels, while for a project activity falling under sectoral scope 13, it entails landfill waste. The project activity type encompasses two categories: energy demand and waste diversion.

#### **Ex-ante parameters as per the MR/4/.**

Ex-Ante Parameter	Assessment
EF Thermal Energy <sub>CO2e</sub> (CO <sub>2e</sub> emissions factor for local generation of thermal energy)	The parameter is described as ‘CO <sub>2e</sub> emissions factor for local generation of thermal energy’ and is having unit ‘Kg CO <sub>2e</sub> per GJ’. Value of all factors and their verified sources are mentioned in Table 2 below.
EF Fuel <sub>i N2O</sub> (N <sub>2</sub> O emissions factor for combustion of each type of fuel (EF Fuel <sub>i N2O</sub> ))	The parameter is described as ‘N <sub>2</sub> O emissions factor for combustion of each type of fuel (EF Fuel <sub>i N2O</sub> )’ and is having unit ‘Kg N <sub>2</sub> O per L, m <sup>3</sup> , or other’. All factor values and their verified sources are mentioned in Table 2 below.
EF Fuel <sub>i CH4</sub> (CH <sub>4</sub> emissions factor for combustion of each type of fuel (EF Fuel <sub>i CH4</sub> ))	The parameter is described as ‘CH <sub>4</sub> emissions factor for combustion of each type of fuel (EF Fuel <sub>i CH4</sub> )’ and is having unit ‘Kg CH <sub>4</sub> per L, m <sup>3</sup> , or other. All factor values and their verified sources are mentioned in Table 2 below.
EF Fuel <sub>i CO2</sub> (CO <sub>2</sub> Emissions Factor for combustion of each type of fuel (EF Fuel <sub>i CO2</sub> ))	The parameter is described as ‘(CO <sub>2</sub> Emissions Factor for combustion of each type of fuel (EF Fuel <sub>i CO2</sub> ))’ and is having unit ‘Kg CO <sub>2</sub> per L, m <sup>3</sup> , or other’. All factor values and their verified sources are mentioned in Table 2 below.

OX ( <i>Oxidation factor (reflecting the amount of soil or other material covering the waste)</i> )	The parameter is described as ' <i>Oxidation factor (reflecting the amount of soil or other material covering the waste)</i> ' and is unit less. The value of this parameter is to be sourced from CDM Tool 04 (Emissions from solid waste disposal sites). However, the PD has applied project description deviation as assessed under section 3.2 of this report and accordingly default emission factors from US EPA WARM v16.0/19/ were used in ER quantification. This approach provides the better scenario of the applicable region, i.e. USA. Thus, found acceptable by the verification team.
DOC <sub>1</sub> <i>Fraction of degradable organic carbon (DOC) that can decompose</i>	The parameter is described as ' <i>Fraction of degradable organic carbon (DOC) that can decompose</i> ' and is unit less. The value of this parameter is to be sourced from CDM Tool 04 (Emissions from solid waste disposal sites). However, the PD has applied default emission factors from US EPA WARM v16.0/19/. This approach provides the better scenario of the applicable region, i.e. USA. Thus, found acceptable by the verification team.
DOC <sub>j</sub> <i>Fraction of degradable organic carbon (DOC) by weight</i>	The parameter is described as ' <i>Fraction of degradable organic carbon (by weight)</i> ' and is unit less. The value of this parameter is to be sourced from CDM Tool 04 (Emissions from solid waste disposal sites). However, the PD has applied default emission factors from US EPA WARM v16.0/19/. This approach provides the better scenario of the applicable region, i.e. USA. Thus, found acceptable by the verification team.
MCF Methane correction factor	The parameter is described as ' <i>Methane correction factor</i> ' and is unit less. The value of this parameter is to be sourced from CDM Tool 04 (Emissions from solid waste disposal sites). However, the PD has applied default emission factors from US EPA WARM v16.0/19/. This approach provides the better scenario of the applicable region, i.e. USA. Thus, found acceptable by the verification team.
K <sub>j</sub> <i>Decay rate for the waste type j</i>	The parameter is described as ' <i>Decay rate for the waste type j</i> ' and is unit less. The value for the parameter is to be determined using CDM's "IPCC 2006 Guidelines for National Greenhouse Gas Inventories"/38/. However, the PD has applied default emission factors from US EPA WARM v16.0/19/. This approach provides the better scenario of the applicable region, i.e. USA. Thus, found acceptable by the verification team.

**Ex-ante Parameters: (Sourced from the regional Data)**

The applied methodology VM0018 allowed to use the regional data and therefore the following various ex-ante values are used from regional data as available.

Table 2: The fixed ex-ante values used for ER calculation and their sources

Sectoral Scope used for ER calculation	Source, Date of data issued	Fuel/material	Unit	Emission factor (tCO <sub>2</sub> /Unit)
3	RDOCECA/MELCCFP, May 1, 2024	Butane	L	0.00175929
3	RDOCECA/MELCCFP, May 1, 2024	Biomass and bark residue	kg	0.00003653
3	RDOCECA/MELCCFP, May 1, 2024	Diesel	L	0.00277272
3	RIN 1990-2021, 2023	Electricity	kWh	0.00000190
3	RDOCECA/MELCCFP, May 1, 2024	Gasoline	L	0.00237785
3	RDOCECA/MELCCFP, May 1, 2024	Coke Carbon	Mt	0.00248614
3	RIN 1990-2021, 2023	Natural Gas	M <sup>3</sup>	0.00193631
3	RDOCECA/MELCCFP, May 1, 2024	Fuel Oil 2	L	0.00273394
3	RDOCECA/MELCCFP, May 1, 2024	Fuel Oil 6	L	0.00314256
3	RIN 1990-2021, 2023	Lubricants (Used Oils)	L	0.00226000
3	Life cycle carbon benefits of aerospace alloy recycling/39/	Recycled Metal Material (FeTi)	Mt	0.000061
3	RDOCECA/MELCCFP, May 1, 2024	Propane	L	0.00153929
3	USEPA, WARM v.16, 2023	Grain Material Source Produced	Mt	0.68458228
13	USEPA, WARM v.16, 2023	Food/organic waste (composted)	Mt	0.72026406
13	USEPA, WARM v.16, 2023	Food/organic waste (anaerobic digestion)	Mt	0.59852849
13	USEPA, WARM v.16, 2023	Corrugated container cardboard	Mt	3.65529736
13	USEPA, WARM v.16, 2023	Mixed paper primarily residential	Mt	3.92376486

13	CDM Methodology AMS III E	Sewage and sludge	Mt	2.084940
13	USEPA, WARM v.16, 2023	Asphalt shingles	Mt	0.02232048
13	USEPA, WARM v.16, 2023	Mixed paper (general)	Mt	3.98948967
13	USEPA, WARM v.16, 2023	Dimensional lumber	Mt	0.81125709
13	USEPA, WARM v.16, 2023	Mixed Plastics	Mt	1.04224727
13	BEAM 2022 (ECCC)	Digestate spreading	Mt	0.83500
13	USEPA, WARM v.16, 2023	Green residues; Putrescible	Mt	0,72026406

### Monitored Parameters

Table 6: Verification of the monitoring parameters

Parameter	Volume or Quantity of Fuel <sub>i</sub> (L, m3, kg or MT)	
	Volume or weight of each type of fuel combusted. This volume or weight of fuel is adjusted for both functional equivalence and units of productivity.	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	<p>The 57 client facilities (54 old and 3 new) have different EE or SWD measures adopted, and all these measures are inline and falling in one or another category of the generic PAIs mentioned in the registered PD/01/. Therefore, different PAIs have different monitoring system in place and the PAIs which are monitoring fuel and other parameters like quantity of final product are being monitored. These monitored values are submitted to PP regularly and after the quality check at Will Solutions, these values are used for the emission reduction calculation for that client facility.</p> <p>These work sheets from all client facilities were checked, for the recorded values, by the assessment team and found okay. Will Solutions also records the evidence like plant records, excel sheets, sales data etc, of the parameter monitored by client facility. These records were also verified to ensure that correct values are used for emission reduction calculation and found correct.</p>

	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The registered PD requires the parameters to be monitored on monthly basis. The aggregated annual data by all client facilities is provided to Will solutions. The annual summarized data is used for emission reduction calculation done individually for all client facilities. Therefore, the parameter measuring, and reporting frequency was found in line with the applied methodology/16/ and registered PD/01/.
	Monitoring equipment	<p>The project currently includes 90 Client facilities, out of which only 57 client facilities have provided evidence in the current monitoring period. There are 33 client facilities that have not provided data and are not participating and have been excluded from the current monitoring period. Therefore, the project activity has 57 client facilities and 2,456 PAIs and therefore all client facilities have different monitoring devices based on their monitoring requirements. For example, the projects which are using the biomass for energy generation are using either public or inhouse weight bridges. Similarly, the facilities which are monitoring the fuel have the fuel meter gauge installed at the site.</p> <p>The assessment team has verified the installation of monitoring devices for the sample facilities, crosschecked with photographic evidence of installed technologies/42/ and found those acceptable through on- site records/18/.</p> <p>Details regarding the calibration of the measuring instruments applicable to the sampled CFs can be found in Appendix 6 of this report.</p>
	Calibration frequency /interval:	The calibration of all the monitoring devices needs to be conducted as per the federal law of Canada/43/ and therefore all the monitoring equipment of the client facilities must be calibrated. The assessment team has verified the calibration certificates/40/ of the monitoring equipment used for emission reduction calculation and found that these meters are calibrated for the sampled CFs. Only one CF has been identified where there is a gap in the calibration and the ERs generated by the PAIs (associated with that parameter) has been excluded from the current



		<p>MP. The detailed assessment has been provided under CL#04 under appendix 5 of this report.</p> <p>Details regarding the calibration of the measuring instruments applicable to the sampled CFs can be found in Appendix 6 of this report.</p>
	How were the values in the monitoring report verified?	<p>The values generated at the client facility are recorded in the ER sheet/05/ for all 57 facilities and individual sheets are maintained for all clients' facilities. The same sheet is used to calculate the emission reduction for each client facility. These clients sheet also includes the total number of PAIs within that client facility. The values of monitoring parameter reported in the abovementioned sheet was cross verified from the sampled plant records and found correct/41/. Will Solutions also records all the evidence received from the client facilities which include the evidence of fuel used, product manufactured, biomass used, waste generated etc, depending on the monitoring requirement of EE and SWD measures taken at the client's facility.</p>
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	<p>All the client facilities have signed an agreement with Will Solutions Inc and this agreement requires the client to monitor maintain and record the data required for emission reduction calculation/28/. All client facilities record the data on continuous basis. However, depending on the nature of data and monitoring devices installed, data is recorded on daily basis in some cases but at least monthly in all cases. All the recorded data is sent to Will Solutions regularly, for the purpose of emission reduction calculation and quality check. The records received by Will Solutions are then verified as per the implemented internal quality system and procedure and then archived by Will Solutions. The plant records for the monitoring, recording and archiving system in place were checked and found that data management is ensured to be correct and transfer of data towards the emission reduction calculations takes place in a systematic manner /5/.</p>
Findings	No finding has been raised	

Conclusion	<p>The VVB confirms that:</p> <ul style="list-style-type: none"> <li>a) The registered monitoring plan has been properly implemented and followed by the project participants</li> <li>b) Monitoring of parameter is implemented in accordance with registered monitoring plan.</li> <li>c) The equipment used for monitoring the parameter is controlled and calibrated in accordance with registered monitoring plan and applied methodology.</li> <li>d) Monitoring results are consistently recorded as per approved frequency.</li> <li>e) Quality assurance and quality control procedures have been applied in accordance with the registered monitoring plan.</li> </ul>
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Parameter	<p>Electricity (kWh)</p> <p>The amount of electricity consumed from the grid.</p>	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	<p>The 57 client facilities (54 old and 3 new) have different EE or SWD measures adopted, and all these measures are inline and falling in one or another category of the generic PAIs mentioned in the registered PD/01/. Therefore, different PAIs have different monitoring system in place and the PAIs which are monitoring fuel and other parameters like quantity of final product are being monitored. These monitored values are submitted to PP regularly and after the quality check at Will Solutions, these values are used for the emission reduction calculation for that client facility.</p> <p>These work sheets from all client facilities were checked, for the recorded values, by the assessment team and found to be accurate. Will Solutions also records the evidence like plant records, excel sheets, sales data etc, of the parameter monitored by client facility. These records were also verified to ensure that correct values are used for emission reduction calculation and found correct.</p>
	Is measuring and reporting frequency in accordance with the monitoring plan and	<p>The registered PD requires the parameters to be monitored on monthly basis. The monitored values are shared with Will Solutions by the client facilities. The data is recorded on monthly frequency which is then aggregated annually. The annual summarized</p>

	monitoring methodology? (Yes / No)	data is used for emission reduction calculation done individually for all client facilities. Therefore, the parameter measuring, and reporting frequency was found in line with the applied methodology/16/ and registered PD/01/.
	Monitoring equipment	<p>The project currently includes 90 client facilities, out of which only 57 client facilities have provided evidence for the current monitoring period. There are 33 client facilities which have not provided data and are thus excluded from the ER accounting during the current monitoring period. The value of this parameter is being measured by the electricity meter and the recorded values were verified via monthly generated electricity bills/41/ by Hydro Quebec,</p> <p>The assessment team has verified the installation of monitoring devices for all facilities crosschecked and found those acceptable through on- site records/18/.</p> <p>The electricity meters are installed, calibrated and maintained by Hydro-Québec, which is a government authority responsible for generation, transmission and distribution of electricity in Quebec. Details regarding the calibration of the measuring instruments applicable to the sampled CFs can be found in Appendix 6 of this report.</p>
	Calibration frequency /interval:	<p>The calibration of all the monitoring devices needs to be conducted as per the federal law of Canada/43/ and therefore all the monitoring equipment of the client facilities must be calibrated. The assessment team has verified the calibration certificates of the monitoring equipment used for emission reduction calculation and found that these meters are calibrated.</p> <p>The electricity meters are installed, calibrated and maintained by Hydro-Québec, which is a government authority responsible for generation, transmission and distribution of electricity in Quebec. Details regarding the calibration of the measuring instruments applicable to the sampled CFs can be found in Appendix 6 of this report.</p>

	How were the values in the monitoring report verified?	The values generated at the client facility are recorded in the ER sheet for all 57 facilities and individual sheets are maintained for all clients' facilities. The same sheet is used to calculate the emission reduction for each client facility. These clients sheet also includes the total number of PAIs within that client facility. The values of monitoring parameter reported in the abovementioned sheet was cross verified from the plant records and found correct/41/. Will Solutions also records all the evidence received from the client facilities which include the evidence of fuel used, product manufactured, biomass used, waste generated etc, depending on the monitoring requirement of EE and SWD measures taken at the client's facility.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	All the client facilities have signed an agreement with Will Solutions Inc and this agreement requires the client to monitor maintain and record the data required for emission reduction calculation/28/. All client facilities record the data on continuous basis. However, depending on the nature of data and monitoring devices installed, data is recorded on daily basis in some cases but at least monthly in all cases. All the recorded data is sent to Will Solutions regularly, also when asked by them for the purpose of emission reduction calculation and quality check. The records received by Will Solutions are then verified as per the implemented internal quality system and procedure and then archived by Will Solutions. The plant records for the monitoring, recording and archiving system in place were checked and found that data management is ensured to be correct and transfer of data towards the emission reduction calculations takes place in a systematic manner /5/.
Findings	No finding has been raised	
Conclusion	The VVB confirms that:	

	<p>a) The registered monitoring plan has been properly implemented and followed by the project participants</p> <p>b) Monitoring of parameter is implemented in accordance with registered monitoring plan.</p> <p>c) The equipment used for monitoring the parameter is controlled and calibrated in accordance with registered monitoring plan and applied methodology.</p> <p>d) Monitoring results are consistently recorded as per approved frequency.</p> <p>e) Quality assurance and quality control procedures have been applied in accordance with the registered monitoring plan.</p>
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Parameter	<p>Quantity of waste (Kg or MT)</p> <p>Weight of waste, which is diverted from landfill for being recycled, re-use.</p>	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	<p>The 57 client facilities (54 old and 3 new) have different EE or SWD measures adopted, and all these measures are inline and falling in one or another category of the generic PAIs mentioned in the registered PD/01/. Therefore, different PAIs have different monitoring system in place and the PAIs which are monitoring fuel and other parameters like quantity of final product are being monitored. These monitored values are submitted to PP regularly and after the quality check at Will Solutions, these values are used for the emission reduction calculation for that client facility.</p> <p>These work sheets from all client facilities were checked, for the recorded values, by the assessment team and found okay. Will Solutions also records the evidence like plant records, excel sheets, sales data etc, of the parameter monitored by client facility. These records were also verified to ensure that correct values are used for emission reduction calculation and found correct.</p>
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring	<p>The registered PD requires the parameters to be monitored on monthly basis. The details about the parameter, sent by all client facilities to Will Solutions, is recorded on annual basis but client facility is recording the data on monthly basis. The annual summarized data is used for emission</p>

	methodology? (Yes / No)	reduction calculation done individually for all client facilities. Therefore, the parameter measuring, and reporting frequency was found in line with the applied methodology/16/ and registered PD/01/.
	Monitoring equipment	<p>The project currently includes 90, out of which only 57 client facilities have provided evidence in the current monitoring period. There are 33 client facilities that have not provided data and are not participating and have been excluded from the current monitoring period. Therefore, the project activity has 57 client facilities and 2,456 PAIs (2,407 old and 49 new) and therefore all client facilities have different monitoring devices based on their monitoring requirements. For example, the projects which are using the biomass for energy generation are using either public or inhouse weight bridges. Similarly, the facilities which are monitoring the fuel have the fuel meter gauge installed at the site.</p> <p>The assessment team has verified the installation of monitoring devices for all facilities crosschecked and found those acceptable through on-site records/18/</p> <p>Details regarding the calibration of the measuring instruments applicable to the sampled CFs can be found in Appendix 6 of this report.</p>
	Calibration frequency /interval:	<p>The calibration of all the monitoring devices needs to be conducted as per the federal law of Canada/43/ and therefore all the monitoring equipment of the client facilities must be calibrated. The assessment team has verified the calibration certificates of the monitoring equipment for the sampled CFs, used for emission reduction calculation and found that these meters are calibrated.</p> <p>Details regarding the calibration of the measuring instruments applicable to the sampled CFs can be found in Appendix 6 of this report.</p>
	How were the values in the monitoring report verified?	The values generated at the client facility are recorded in the ER sheet for all 57 facilities and individual sheets are maintained for all clients' facilities. The same sheet is used to calculate the

		<p>emission reduction for each client facility. These clients sheet also includes the total number of PAIs within that client facility. The values of monitoring parameter reported in the above-mentioned sheet was cross verified from the plant records and found correct/41/. Will Solutions also records all the evidence received from the client facilities which include the evidence of fuel used, product manufactured, biomass used, waste generated etc, depending on the monitoring requirement of EE and SWD measures taken at the client's facility.</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>All the client facilities have signed an agreement with Will Solutions Inc and this agreement requires the client to monitor maintain and record the data required for emission reduction calculation/28/. All client facilities record the data on continuous basis. However, depending on the nature of data and monitoring devices installed, data is recorded on daily basis in some cases but at least monthly in all cases. All the recorded data is sent to Will Solutions regularly, also when asked by them for the purpose of emission reduction calculation and quality check. The records received by Will Solutions are then verified as per the implemented internal quality system and procedure and then archived by Will Solutions. The plant records for the monitoring, recording and archiving system in place were checked and found that data management is ensured to be correct and transfer of data towards the emission reduction calculations takes place in a systematic manner /5/.</p>
Findings	No finding has been raised	
Conclusion	<p>The VVB confirms that:</p> <ul style="list-style-type: none"> <li>a) The registered monitoring plan has been properly implemented and followed by the project participants</li> <li>b) Monitoring of parameter is implemented in accordance with registered monitoring plan.</li> </ul>	

	<p>c) The equipment used for monitoring the parameter is controlled and calibrated in accordance with registered monitoring plan and applied methodology.</p> <p>d) Monitoring results are consistently recorded as per approved frequency.</p> <p>e) Quality assurance and quality control procedures have been applied in accordance with the registered monitoring plan.</p>
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### GHG Calculation:

The emission reduction as per the applied methodology equals the baseline emissions minus project emissions.

### Baseline Emissions:

All PAIs' baseline emissions ( $BE_y$ , in  $tCO_2e$ ) are the product of the baseline emissions factor ( $EF_3$ , in  $tCO_2$ /unit of fossil fuel and  $EF_{13}$ , in  $tCO_2$ /Mt of waste stream) and the fossil fuel consumption (FF) prior to the project, as well as the waste stream (WS) prior to its diversion from landfill management. Mathematically it is expressed as:

$$BE_y = FF_{BL} \times EF_3 \dots\dots\dots(\text{sectoral scope 3})$$

$$BE_y = WS_{BL} \times EF_{13} \dots\dots\dots(\text{sectoral scope 13})$$

$$FF_{BL,y} = \text{volume of fossil fuel}$$

$$WS_{BL,y} = \text{volume of waste stream}$$

$$EF_3 = \text{CO}_2e \text{ emission factor of the fossil fuel"}$$

$$EF_{13} = \text{CO}_2e \text{ emission factor of the waste stream that takes into account the different management scenario, at landfill, regarding the flaring or no flaring of the methane (biogas) and/or its use or not for energy recovery}$$

The detailed computations of all the facilities (were provided in Appendix B of the monitoring report as well as Appendix C, The VVB checked the data for the monitoring period and found to be correct.

### Project Emissions

All PAIs' Project Emissions ( $PE_y$ , in  $tCO_2e$ ) are the product of the project emission factor ( $EF_3$ , in  $tCO_2$ /unit of fossil fuel and  $EF_{13}$   $tCO_2$ /Mt of waste stream) and the fossil fuel consumption (FF) used by the project, as well as the waste stream management (WS) through reuse, recycling, or composting (WS).

$$PE_y = FF_p \times EF_3 \dots\dots\dots(\text{sectoral scope 3})$$

$$PE_y = WS_p \times EF_{13} \dots\dots\dots(\text{sectoral scope 13})$$



$FF_{P,y}$  = Volume of fossil fuel

$FF_{P,y}$  = Volume of waste stream

$EF_3$  = CO<sub>2</sub>e emission factor of the fossil fuel

$EF_{13}$  = CO<sub>2</sub>e emission factor of the waste stream that considers the different management scenario, at landfill, regarding the flaring or no flaring of the methane (biogas) and/or its use or not for energy recovery

### Leakage Emissions

At project unit level, the leakage emissions during the monitoring period are de minimus, thus is zero.

The formula provided for the calculation of emission reduction is per applied methodology VM0018 V1.0/16/:

$$ER_y = BE_y - PE_y - LE_y$$

Where as;

$ER_y$  = Emissions Reduction in monitoring period

$BE_y$  = Adjusted Baseline for Energy Efficiency + Solid waste diversion. The EE and SWD emissions are adjusted as per the provisions made in the applied methodology and registered PD.

$PE_y$  = Project emissions for Energy Efficiency + Solid waste diversion. The EE and SWD emissions are adjusted as per the provisions made in the applied methodology and registered PD.

$LE_y$  = Leakage emissions in year y

The verification team confirms that appropriate methods and formulae for calculating baseline emissions have been followed in the ER sheet/05/. The assumptions, emission factors and default values that were applied in the calculations are justified in the ER sheet/05/. All the data were made available and have been monitored as per required monitoring frequency. The means of verification for the values of parameters, used for baseline emission calculation, is described earlier. Thus, this project's GHG statement have been quantified correctly in accordance with the monitoring plan and applied methodology except for the deviation sought.

## 4.4 Quality of Evidence to Determine Reductions and Removals

The assessment team confirms that the calculation and data is authentic. The quality of the supporting documents submitted for verification is adequate. The assessment team has checked the quality and maintenance of the supporting documents during the onsite audit/18/ to confirm the authenticity of the documents and to check the appropriate calculations. The assessment team confirms that proper evidence is available for the whole monitoring period and the same is verifiable and the data collection system meets the requirements of the monitoring plan and the applied methodologies according to the assessment carried out.

The assessment team confirms the quality of evidence to determine the GHG reductions are satisfactory and the detailed information regarding the roles and responsibilities have been provided in MR/04/. The list of all the documents referred to for this verification are included in Appendix 3 of this verification report.

#### 4.5 Non-Permanence Risk Analysis

Not applicable for the project activity.

## 5 VERIFICATION OPINION

### 5.1 Verification Summary

Earthood Service Limited (Earthood), contracted by Will Solutions (Will) has performed the independent verification of the emission reductions for the VCS project activity “Energy efficiency and solid waste diversion activities within the Quebec Sustainable Community” (VCS 929) for the monitoring period 01/01/2023 to 31/12/2023. Will is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emission reductions from the project activity.

Earthood commenced the verification based on the baseline and monitoring methodology VM0018 “Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community”/16/ contained in the VCS PD/1/ and VCS Standard v4.7/7/. The verification approach of the assessment team is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these.

Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated, and the project has been implemented in accordance with the project description and subsequently validated variations.

The verification of the GHG statement was conducted in accordance with ISO 14064-3:2019/17/.

## 5.2 Verification Conclusion

In our opinion, the GHG emission reductions reported for the project activity for the period 01/01/2023 to 31/12/2023 are calculated and stated in Monitoring Report version 1.2 dated 11/04/2025. The GHG emission were calculated correctly based on the approved baseline and monitoring methodology VM0018 “Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community”/16/.

**Verification period:** From 01-January-2023 to 31-December-2023

**Verified GHG emission reductions and removals in the above verification are as follows:**

Vintage period	Baseline emissions (tCO <sub>2</sub> e)	Project emissions (tCO <sub>2</sub> e)	Leakage emissions (tCO <sub>2</sub> e)	Reduction VCU (tCO <sub>2</sub> e)	Removal VCU (tCO <sub>2</sub> e)	Total VCUs (tCO <sub>2</sub> e)
01-Jan-2023 to 31-Dec-2023	655,895	20,538	De minimus	635,357	0	635,357
Total	655,895	20,538	De minimus	635,357	0	635,357

## 5.3 Ex-ante vs Ex-post ERR Comparison

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-Jan-2023 to 31-Dec-2023	2,800,000	635, 357	77.31%	Achieved ERs are 77.31% lower than the estimated. PP has explained that Recruitment of new Client Facilities and new PAIs into the Sustainable Community project was not as high as expected during the validation. Moreover, the achieved ERs are less than the estimated ERs, thus no further justification was sought.
Total	2,800,000	635, 357	77.31%	Same as above

Approved by:

A handwritten signature in black ink, appearing to read 'Ashok K. Gautam', written in a cursive style.

ASHOK K. GAUTAM

Executive Director

Earthood Services Limited

Date: 14/04/2025

Place: Gurgaon, Haryana

# APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

The table below describes the commercially sensitive information included in the monitoring report to be excluded in the public version.

Section	Information	Justification	Assessment method and conclusion
5	Client Facility names are anonymized and replaced by Client Facility ID numbers	<ol style="list-style-type: none"> <li>1) Protecting Client Facility Privacy: Anonymizing client facility names safeguards their privacy, ensuring that sensitive information (e.g. financial and commercial) remains confidential.</li> <li>2) Mitigating Legal Risks: Anonymizing client facility names ensures that the company adheres to the confidentiality clause outlined in adhesion contract signed with Client Facilities (see clause 9 in adhesion contract).</li> <li>3) Maintaining Competitive Advantage: Anonymizing client facility names prevents competitors from gaining insights into the Project Proponent's client base, strategies, or market positioning.</li> <li>4) Enhancing Trust and Professionalism: Anonymizing client facility names demonstrates a commitment to professionalism and discretion, fostering trust between the company and its clients (i.e. Client Facilities)</li> </ol>	VVB has assessed both the version (confidential and public version) of the ER sheet and confirms that no other information except the client facilities' information has been excluded from the public version of the ER sheet provided by the PP.

## APPENDIX 2: ABBREVIATIONS

Abbreviations	Full texts
BE	Baseline Emission
CAR	Corrective Action Request
CF	Client Facility
CL	Clarification Action
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
CP	Crediting Period
DOE	Designated Operational Entity
DR	Desk Review
DVR	Draft Verification Report
EE	Energy Efficiency
EF	Emission Factor
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GP	Grouped Project
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Period
MR	Monitoring Report
NA	Not Applicable
PA	Project Activity
PAI	Project Activity Instances
PD	Project Description
PE	Project Emission
PP	Project Participant
QA/QC	Quality Assurance / Quality Control
QMS	Quality Management System
RCP	Renewal of Crediting Period
SCSP	Sustainable Community Service Promotor
SME	Sustainable Community Client Facility
SWD	Solid Waste Diversion
TR	Technical Review
VCS	Verified Carbon Standard
VCS PD	VCS Project Description
VCU	Verified Carbon Unit
VVB	Validation/verification Body

## APPENDIX 3: LIST OF DOCUMENTS

S. No.	Title of document	Version	Author/ Provider
1.	VCS Project Description (Renewal of Crediting Period)	Version 1.2 Dated: 25/01/2021	PP
2.	Quantification sheet of the PAIs (Estimated emission reduction sheet)	Corresponding to the PD of CP Renewal	PP
3.	Renewal of Crediting period Report	Version 1.2 Dated: 18/02/2021	Others
4.	VCS MR (Title: VCS MR8 Project ID929)	Version 1.2 Dated: 11/04/2025	PP
5.	Emission reduction calculation Sheet: a. Anonymized b. Confidential	Pertaining to the latest MR	PP
6.	VCS Program Guide	Version 4.4 Dated: 29/08/2023	VCS
7.	VCS Standard	Version 4.7 Dated: 16/04/2024	VCS
8.	VCS Program Definitions	Version 4.5 Dated: 16/04/2024	VCS
9.	VCS Validation and Verification Manual	Version 3.2 Dated: 19/10/2016	VCS
10.	VCS Monitoring Report Template	Version 4.4 Dated: 16/04/2024	VCS
11.	VCS Verification Report Template	Version 4.4 Dated: 16/04/2024	VCS
12.	VCS Project webpage – <a href="https://registry.verra.org/app/projectDetail/VCS/929">https://registry.verra.org/app/projectDetail/VCS/929</a>	Last Access Date – 01/01/2025	VCS
13.	Documents of 6 <sup>th</sup> Monitoring Period: a. VCS 6 <sup>th</sup> Monitoring Report b. VCS Verification Report for 6 <sup>th</sup> MP	Multiple	PP
14.	Documents of 7 <sup>th</sup> Monitoring Period: a. VCS 7 <sup>th</sup> Monitoring Report b. VCS Verification Report for 7 <sup>th</sup> MP	a. Dated 14/09/2024 b. Dated 30/01/2025	VCS

15.	Documents for Validation of 1 <sup>st</sup> Crediting Period: a. Registered VCS Project Description b. Validation Report	v2.0, Dated: 05/07/2013 v1.0, Dated 11/07/2013	PP
16.	VCS Approved Methodology VM0018 “Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community” <a href="https://verra.org/wp-content/uploads/imported/methodologies/VM0018v1.0.pdf">https://verra.org/wp-content/uploads/imported/methodologies/VM0018v1.0.pdf</a>	Version 1.0, Approved date: 20 February 2012	VCS
17.	International Standard ISO 14064 - Part 3	Second Edition Dated: April 2019	ISO
18.	On-site audit documents	-10/02/2025 to 12/02/2025	VVB
19.	U.S. Environmental Protection Agency Waste Reduction Model (EPA WARM) <a href="https://www.epa.gov/warm/versions-waste-reduction-model#v16">https://www.epa.gov/warm/versions-waste-reduction-model#v16</a>	Version 16.0	Other
20.	Will’s contact information • <a href="https://solutionswill.com/en/contact-us/">https://solutionswill.com/en/contact-us/</a> • <a href="https://solutionswill.com/en/about-us/our-team/">https://solutionswill.com/en/about-us/our-team/</a>	Last accessed on 09/11/2024	PP
21.	VCS webpage of the Project: <a href="https://registry.verra.org/app/projectDetail/VCS/929">https://registry.verra.org/app/projectDetail/VCS/929</a>	Last accessed on 09/11/2024	Other
22.	RDOCECA/MELCCFP, May 1, 2024 <a href="https://www.legisquebec.gouv.qc.ca/fr/pdf/rc/Q-2,%20R.%2015.pdf">https://www.legisquebec.gouv.qc.ca/fr/pdf/rc/Q-2,%20R.%2015.pdf</a>	-	Other
23.	RIN 1990-2021, 2023 <a href="https://publications.gc.ca/collections/collection_2023/eccc/En81-4-2021-3-fra.pdf">https://publications.gc.ca/collections/collection_2023/eccc/En81-4-2021-3-fra.pdf</a>	-	Other
24.	Eckelman, M.J, Ciacci, L., Kavlak, G., Nuss, P., Reck, B.K. & Graedel, T.E. (2014). Life cycle carbon benefits of aerospace alloy recycling. Journal of Cleaner Production, 80, 38-45 <a href="https://doi.org/10.1016/j.jclepro.2014.05.039">https://doi.org/10.1016/j.jclepro.2014.05.039</a>	-	Other
25.	Ongoing communications with Stakeholders: • Newsletters • Blogs • Web pages • Social media posts • Press releases • Podcasts	01/01/2023 to 31/12/2023	



	<ul style="list-style-type: none"> <li>Corporate brochures</li> <li>SDG Reports</li> </ul>		
26.	Published monitoring results on Will Solutions' website: <a href="https://solutionswill.com/en/our-community/sustainable-communities-project-documentation/">https://solutionswill.com/en/our-community/sustainable-communities-project-documentation/</a>	-	PP
27.	CDM Standard: Sampling and surveys for CDM project activities and programme of activities	Version 9.0 Dated: 27/05/2021	Other
28.	Contracts with the Client Facilities	-	PP
29.	Client Facility (kml file)	Multiple	PP
30.	Will Solution Internal Audit checklist	Multiple	PP
31.	IRR- Investment Analysis for new CFs and the supportive for financial figures	Multiple	PP
32.	Verra Registry <a href="https://registry.verra.org/app/search/VCS/All%20Projects">https://registry.verra.org/app/search/VCS/All%20Projects</a>	Accessed on 21/02/2025	Other
33.	Sustainability Report for Fiscal year 2023-24 <a href="https://solutionswill.com/wp-content/uploads/2024/11/Sustainable-Development-Report-2023-2024-Will-Solutions-EN.pdf">https://solutionswill.com/wp-content/uploads/2024/11/Sustainable-Development-Report-2023-2024-Will-Solutions-EN.pdf</a>	September 2024	PP
34.	B-Corp Certification	-	PP
35.	Wills Solutions Inc. Management Team Details <a href="https://solutionswill.com/en/about-us/our-team/">https://solutionswill.com/en/about-us/our-team/</a>	-	Other
36.	Labor laws and Regulations: <ul style="list-style-type: none"> <li><u>n-1.1 - Act respecting labour standards</u></li> <li><u>s-2.1 - Act respecting occupational health and safety</u></li> <li><u>C-12 - Charter of human rights and freedoms</u></li> <li><u>E-12.001 - Pay Equity Act</u></li> </ul>	Last accessed on 09/11/2024	Other
37.	Enforcement Agencies: <ul style="list-style-type: none"> <li><u>Home   Commission des normes de l'équité de la santé et de la sécurité du travail - CNESST</u></li> <li><u>Administrative Labour Tribunal - Administrative Labour Tribunal</u></li> </ul>	-	Other
38.	IPCC 2006 Guidelines for National Greenhouse Gas Inventories <a href="https://www.ipcc-nggip.iges.or.jp/public/2006gl/">https://www.ipcc-nggip.iges.or.jp/public/2006gl/</a>	-	Others

39.	Data source for Life cycle carbon benefits of aerospace alloy recycling <a href="https://doi.org/10.1016/j.jclepro.2014.05.039">https://doi.org/10.1016/j.jclepro.2014.05.039</a>	-	Others
40.	Calibration certificates	Multiple	PP
41.	Sample data for verification of monitored parameters: a. Weight of waste treated b. Volume of Fuel c. Electricity consumed	Multiple CFs: CF IDs – 0708, 0707, 0702, 0122, 1510, 1204	PP
42.	Photos of installed technologies for the CFs with new PAIs	Multiple	PP
43.	Rules and regulations in Quebec for billed invoices: <ul style="list-style-type: none"> <li>Section 8(1) and 26 of Weights and Measures Act (R.S.C., 1985, c. W-6)</li> <li>Section 14, 15 and 17 of Weights and Measures Regulations (SOR/2016-118)</li> </ul>	<ul style="list-style-type: none"> <li><a href="https://ised-isde.canada.ca/site/measurement-canada/en">https://ised-isde.canada.ca/site/measurement-canada/en</a></li> <li><a href="https://www.mapaq.gouv.qc.ca/fr/Pages/Accueil.aspx">https://www.mapaq.gouv.qc.ca/fr/Pages/Accueil.aspx</a></li> </ul>	Others
44.	Audit Plan	06/02/2025	VVB

## APPENDIX 4: COMPETENCY STATEMENTS

Competence Statement			
Name	Vardhan Kaushik		
Education	Master of Chemical Engineering B.Tech. in Chemical Engineering		
Experience:	2+ years		
Field	Energy, Carbon Calculation, Process Integration, Heat Integration, Heat and mass balance, Electric Vehicle		
Approved Roles			
Team Leader	Yes (VM)		
Validator	Yes (VM)		
Verifier	Yes (VM)		
Methodology Expert	NO		
Local expert	Yes (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	TA 1.1, 3.1, 5.1, 7.1		
Reviewed by	Shifali Guleria (Quality Manager)	Date	30/01/2025
Approved by	Deepika Mahala (Technical Manager)	Date	30/01/2025

Competence Statement			
Name	Mohd Aamir Khan		
Education	Ph. D. (Environmental Microbiology) M.Sc. (Biotechnology) B.Sc. (Life Sciences)		
Experience	5+ Years		
Field	Wastewater treatment and Waterbodies management		
Approved Roles			
Team Leader	NO		
Validator	YES		
Verifier	YES		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (13.1)	YES		
Reviewed by	Shifali Guleria (Quality Manager)	Date	03/01/2025
Approved by	Deepika Mahala (Technical Manager)	Date	03/01/2025

Competence Statement			
Name	Kaviraj Singh		
Education	Ph.D. (Environmental Engineering), IIT Delhi Masters (Energy & Environmental), DAVV Indore		
Experience	15 Years +		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-II.D., ACM0006, AMS-I.A., AMS-I.C., AMS-II.B., AMS-III.H, ACM0002, ACM0001, AM0080, ACM0018, AM0056, AM0073 VM0042, AMS-III.G, AMS-III.AF., VM0032, VM0018, ACM0010, ACM0022, AMS-III.D, AMS-III.F and AMS-III.A.Q		
Local expert	YES (India)		
Financial Expert	YES		
Technical Reviewer	YES		
TA Expert (X.X)	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1, TA 13.2)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	02/02/2023
Approved by	Deepika Mahala (Technical Manager)	Date	02/02/2023

Competence Statement			
Name	Anjali Chaudhary		
Education	Bachelor of technology in Civil Engineering		
Experience	2+ Years		
Field	Civil Engineering		
Approved Roles			
Team Leader	YES (VM only)		
Validator	YES (VM only)		
Verifier	YES (VM only)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	Yes		
TA Expert (X.X)	YES (TA 1.1, 1.2, 3.1, 13.1 & 13.2/15 as per VERRA)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	11/09/2024
Approved by	Deepika Mahala (Technical Manager)	Date	11/09/2024

## APPENDIX 5: FINDINGS OVERVIEW

Table 1. Remaining FAR from validation and/or previous verification

FAR ID	NA	Section No.	NA	Date : DD/MM/YYYY
Description of FAR				
There is no finding FAR from previous verification report of MP7/14/.				
Project participant response				Date : DD/MM/YYYY
Documentation provided by project participant				
VVB assessment				Date: DD/MM/YYYY

Table 2. CL from this verification

CL ID	01	Section no.	1.4	Date : 19/12/2024
Description of CL				
Documents assessed:				
<ul style="list-style-type: none"> <li>ID929-Annex B-MP7-Confidential-(2022)-2024-v2.1.xlsx</li> <li>CF-ParticipationTrack-CAR ID01-2.xlsx (Evidence of MP7)</li> <li>ID929-Annex B-MP8-Confidential-(2023)-2024-v1.0.xlsx</li> </ul>				
The following points were observed between the 7 <sup>th</sup> (MP7) and 8 <sup>th</sup> (MP8) monitoring period of this grouped project activity:				
1. Discrepancy in number of PAIs				
a) Total number of PAIs				

Observations:

- Total number of PAIs in MP8 = 2,584
- Total number of PAIs in MP7 = 2,534
- Number of new PAIs **added** in MP8 = 51
- The difference in total number of PAIs between MP8 and MP7 = 2584 – 2534 = 50

Concern/Action:

PP shall define this discrepancy in number of new PAIs added during MP8.

**b) Number of PAIs excluded (i.e. 0 ERs generated) in MP8**
Observations:

- Number of PAIs excluded in MP8 = 125
- Number of PAIs excluded in MP7 = 104
- Number of PAIs **added** in non-participation list of MP8 = 22

CF IDs	PAIs
0406	20 (Scope 13)
0704	01 (Scope (03)
0809	01 (Scope (03)

- All the 104 PAIs, which did not participate in 2022 (i.e. MP7) are also not participating in MP8.
- Thus, the total number of PAIs that should be listed as not participating in MP8 = 126 (104 + 22)

Concern/Action:

PP shall define this discrepancy in number of PAIs that are listed as non-participating in MP8.

**2. Discrepancy in number of PAIs under Client Facilities (CFs) in both MP**
Observation:

As per tab “Non participation 2023” of the ER sheet (ID929-Annex B-MP8-Confidential-(2023)-2024-v1.0.xlsx), there are no change in the list of non-participation other than addition of 3 CFs (0406, 0704 and 0809).

The following table shows the variation in number PAIs in MP7 and MP8 (ID929-Annex B-MP7-Confidential-(2022)-2024-v2.1.xlsx and ID929-Annex B-MP8-Confidential-(2023)-2024-v1.0.xlsx, respectively)

CF ID	Scope	Number of PAI listed under MP8	Number of PAI listed under MP7	Comments
0105	03	00	01	No new PAI was added under scope 03 of this CF in both the monitoring periods, MP7 and MP8.
0113	03	53	52	Also, 11 new PAIs have been added to this CF under scope 03 during MP8. However, 64 PAIs are listed under this CF.

	0206	03	09	07	No new PAI was added under scope 03 of this CF in both the monitoring periods, MP7 and MP8.
	0405	13	06	07	No new PAI was added under scope 13 of this CF in both the monitoring periods, MP7 and MP8.
	0408	13	19	24	In MP7, 7 new PAIs were added to the existing 17 PAIs under scope 13 of this CF.
	0901	13	47	53	No new PAI was added under scope 13 of this CF in both the monitoring periods, MP7 and MP8.
	1201	13	05	04	No new PAI was added under scope 13 of this CF in both the monitoring periods, MP7 and MP8.
	1509	13	06	02	2 new PAIs under scope 13 of this CF and previously there were no other PAIs under scope 13 of this CF.
	1510	13	06	04	No new PAI was added under scope 13 of this CF in both the monitoring periods, MP7 and MP8.
	1601	13	07	05	No new PAI was added under scope 13 of this CF in both the monitoring periods, MP7 and MP8.
PP shall clarify this discrepancy in number PAIs under the above-mentioned client facilities.					
<b>Project participant response</b>					<b>Date : 23/01/2025</b>
<b>1. Discrepancy in number of PAIs</b> a) The discrepancy in the number of PAIs is due to CF-0122 being considered as an excluded CF with one excluded PAI in MP7 (screenshot of 'Non Participation 2022' sheet in 'ID929-Annex B-MP7...2024-v.2.1' below). This CF should not have been accounted for in MP7.					

### Non-participating members in the 7th cohort

Sustainable Community Quebec's project

7th Monitoring Report (MR) period covered : January First, 2022 up to December 31, 2022.

Last revised version: October 24, 2024

2022									
				Reason for not participating					
	Member	PAI Scope 3	PAI Scope 13	Company Sale	Asset Sale	Closing	Bankruptcy	Other	Details
01-Bas-Saint-Laurent									
4	Client Facility 0104	5	0					✓	Withdrawal
7	Client Facility 0107	14	0					✓	Failed to submit data on time
9	Client Facility 0109	1	0					✓	Withdrawal
16	Client Facility 0116	6	0					✓	Withdrawal
17	Client Facility 0117	2	0					✓	Withdrawal
19	Client Facility 0119	1	0						Asset sold, therefore -1 PAI, CF still participating
20	Client Facility 0120	1	0						-1 PAI; stopped the PAI; CF still participating
22	Client Facility 0122	1	0					✓	PAI is out of service due to broken boiler in 2022
02-Saguenay Lac-Saint-Jean									

The number of new PAIs in MR8 is therefore not wrong, it is the number of excluded CF from the MR7 that had one too many.

	2022 – MP7	2023 – MP8
	PAI	PAI
Considered during the monitoring period	721	2,408
Excluded from the monitoring period	<del>104</del> 103	125
Added during the monitoring period	1709	51
<b>Total</b>	<del>2,534</del> 2,533	2,584

Therefore, 2,584 – 2,533 = 51 new PAIs

#### b) Number of PAIs excluded (i.e. 0 ERs generated) in MP8

Similarly to 1.a), this is because CF 0122 was accounted for in MP7 with one PAI. Then, in MP8 the CF and its PAI was removed.

CF IDs	PAIs
0406	+20 (Scope 13)
0704	+1 (Scope (03)
0809	+1 (Scope (03)
0122	-1 (Scope 03)

Thus, the total number of PAIs listed as not participating in MP8 is 125, since 104 + 20 + 1 + 1 – 1 = 125

#### 2. Discrepancy in number of PAIs under Client Facilities (CFs) in both MP

CF ID	Scope	Number of PAI listed under MP8	Number of PAI listed under MP7	Clarification for change in number of PAIs
0105	03	01	01	ERs results were negative and was therefore considered 0. Number of PAI was corrected back to 1

	0113	03	52	52	There was indeed an error in the number of PAIs. The right number is 52 and was corrected.
	0206	03	09	07	The number of PAIs represents the suppliers (i.e., origin points) of the contaminated soil being treated at the CF facility. In MP4, the project had 11 suppliers. In MP5, MP6 and MP7, the number of biomass suppliers decreased to 7, but in MP9 it increased to 9 suppliers.
	0405	13	06	07	Individual PAIs are calculated based on the number of origin points (i.e. suppliers) of biomass. The CF received biomass from 7 suppliers in MP7, therefore the number of PAIs is set to 7. The CF received biomass from one less supplier in MP8, therefore the number of PAIs is set to 6.
	0408	13	19	24	Individual PAIs are determined based on the number of origin points (i.e. suppliers) for the reuse of biomass. The CF received biomass from 24 suppliers in MP7, therefore the number of PAIs is set to 24. The CF received biomass from less suppliers in MP8, therefore the number of PAIs is set to 19.
	0901	13	50	53	Individual PAIs are determined based on the number of destination points (i.e. 3 wood dryers + number of clients) for the reuse of biomass. The CF reused biomass through 3 wood dryers and 50 clients in MP7, therefore the number of PAIs is set to 53. The CF reused biomass through 3 wood dryers and 47 clients in MP8, therefore the number of PAIs is set to 50.
	1201	13	05	04	This is not a new PAI but rather a correction due to an incorrect count of PAIs in MP7. Individual PAIs are determined based on the number of destination points for the reuse of biomass, including one biomass boiler and



					the number of clients served. In MP8, the CF reused biomass through one biomass boiler and 4 destination clients, resulting in a total of 5 PAIs.
	1509	13	06	02	These are not new PAIs. Individual PAIs are determined based on the number of destination points for the reuse of biomass, including one biomass boiler and the number of clients served. Since the project implementation, the number of clients has varied between one and five clients. In MP7, the CF reused biomass through one biomass boiler and 1 destination client, resulting in a total of 2 PAIs. In MP8, the CF reused biomass through one biomass boiler and 5 destination clients, resulting in a total of 6 PAIs.
	1510	13	06 (1+5)	04 (1+3)	These are not new PAIs. The projects included are as follows: one PAI focused on the recycling and reuse of cardboard, and three to five PAIs determined by the number of biomass suppliers (i.e., origin points). The number of biomass suppliers has fluctuated between three and five. In MP5 and MP6, the project had 5 biomass suppliers. In MP7, the number of biomass suppliers decreased to 3, but in MP8 it returned to 5 suppliers.
	1601	13	07	05	These are not new PAIs. Individual PAIs are determined based on the number of biomass suppliers (i.e., origin points). The number of biomass suppliers has fluctuated between five and twelve. In MP5 and MP6, the project had 12 biomass suppliers. In MP7, the number of biomass suppliers decreased to 5, but in MP8 it increased to 7 suppliers.
The variation in number of PAIs per MP and their explanation is included in the Excel sheet 'ID929-PAI Description and Segregation Justification-MR8' already provided to the VVB, but reshared in attachment.					

<b>Documentation provided by project participant</b>	
<ul style="list-style-type: none"> <li>Excel sheet 'ID929-PAI Description and Segregation Justification-MR8'</li> </ul>	
<b>VVB assessment</b>	<b>Date:</b> 15/02/2025
<p><b>1.</b></p> <p>a. PP has justified that the CF-0122 (with one PAI) was considered as an excluded CF during the previous verification. However, this CF should not have been considered in the previous verification (MP7) as this is the new Client Facility added under the current verification of MP8. Further, the assessment confirmed that CF-0122 was not considered under the number of CFs participating or non-participating CFs during previous verification. Thus, the total number of CFs in the previous verification (MP7) is 87, excluding CF-0122 and total number of PAIs that should be accounted under MP7 is 2533.</p> <p>However, as per worksheet "ER 2023 scope 3 &amp; 13" of the ER sheet "ID929 AnnexB-MP8-Confidential- (2023)-2024-v.1.1", the total number of PAIs considered during this MP8 sums to <b>2587</b> under 91 Client facilities as calculated in cell F132. The same has been indicated under section 3.1 of MR, where total number of PAIs sums to 2587. Therefore, the difference in number of PAIs under MP8 and MP7 extents to 54 (2587 – 2533), while PP has considered 51 new client facilities under MP8. PP shall clarify the inconsistency observed. <b>OPEN.</b></p> <p>b. The justification provided by the PP clarifies that one PAI under CF0122 (scope 3) was wrongly considered excluded under MP7 leading to the total no. of PAIs being excluded to 104 under MP7. Therefore, the total number of PAIs excluded under MP7 is 103, which in addition to other 22 PAIs (20 + 1 + 1) excluded under MP8 totals to 125 PAIs excluded under current MP. <b>Closed.</b></p> <p><b>2.</b> PP has clarified the discrepancies in the number of PAIs of the above-mentioned CFs. However,</p> <p>a) For CF-105, the justification provided by the PP is as follows "<i>ERs results were negative and was therefore considered 0. Number of PAI was corrected back to 1</i>". Therefore,</p> <p>i PP shall clarify the reason for all the PAIs which generated negative ERs during the current verification.</p> <p>ii PP shall include negative ERs generated by these PAIs in the ER calculation of the current MP.</p> <p>b) For the all the CFs, where the number of PAIs has been decreased from previous to current verification, PP shall list these PAIs under worksheet "<i>Non participation 2023</i>" of the ER sheet and revise the calculation of number of PAIs considered under this verification (MP8). Thus, the comment is still <b>OPEN.</b></p> <p>CL#01 is <b>OPEN.</b></p>	
<b>Project participant response</b>	
<b>Date :</b> 26/02/2025	
<p><b>1.</b> a) The number of PAIs has been revised across all MPs (as requested in 2.b) below).</p> <p>The number of PAIs included in this MP is 2,409.  The number of new PAIs included in this MP is 49.  The number of PAIs excluded from this MP is 187.</p> <p>For a grand total of 2,645 PAIs.</p> <p><b>2.a) i &amp; ii - 3 PAIs generated negative ERs during this monitoring period:</b></p>	

CF ID #	ERs generated (tCO2e)	Reason for negative ERs	Status
0105	-23.39	CF has confirmed that the use of the biomass dryer was interrupted in 2023 due to equipment maintenance.	Negative ERs included in calculations
0805	-39.6	CF has confirmed the methanizer system, which is used to heat washing water, was out of order in 2023, and had to compensate by increasing propane consumption.	PAI is excluded since this is the third MP with negative ERs.
1204	-409.14	Natural gas consumption in PE is higher than in BE despite adjustment with production output.	Negative ERs included in calculations
<p>b) The number of PAIs decreased from previous to current MPs have been listed under worksheet 'Non participation 2023' of Annex B, and the number of PAIs considered under MP8 has been revised. The sheet 'PAI MPs Tracker' has also been added to 'Annex B' Excel sheet.</p>			
<b>Documentation provided by project participant</b>			
<b>VVB assessment</b>			<b>Date:</b> 06/03/2025
<p>1.</p> <p>a. PP has revised the number of PAIs for the current MP, which now includes all the PAIs that has been considered in all the previous verifications. Thus, the comment is CLOSED.</p> <p>b. Closed.</p> <p>2.</p> <p>a) PP has justified that the negative ERs were generated in the above-mentioned 3 PAIs are due to either maintenance breakdown or increase in the production output. Since, the reason provided by the PP has been found acceptable, thus, the comment is CLOSED.</p> <p>b) PP has added list of the PAIs, which have been excluded (i.e. not generating ERs) during the current MP under tab 'PAI MPs Tracker' of the ER sheet. Thus, the comment is CLOSED.</p> <p>CL#01 is <b>CLOSED</b>.</p>			

CL ID	02	Section no.	4.3	Date : 19/12/2024
<b>Description of CL</b>				
<p>As per section 4-1 of Appendix 4 of MR v1.0,</p> <p>The following discrepancies were observed for the value of emission factor (EF) sourced from US WARM v16 (U.S. Environmental Protection Agency Waste Reduction Model):</p> <p><b>1. Food/Organic waste (Composted)</b></p> <ul style="list-style-type: none"> <li>The applied value of emission factor is 0.72026406 tCO<sub>2</sub>/Mt.</li> </ul>				

- As per US WARM v16, the GHG emissions from “Food Waste” per ton (i.e. short ton) of material composted is 0.15213492 tCO<sub>2</sub>, which is equal to 0.16765269 tCO<sub>2</sub>/Mt

Thus, PD shall clarify:

- The reason for including GHG emissions from landfill diversion in the food waste composting process.
- The inconsistency with the provided source.

## 2. Food/Organic waste (Anaerobic digestion)

- The applied value of emission factor is 0.59669138 tCO<sub>2</sub>/Mt.
- As per US WARM v16, the GHG emissions from “Food Waste” per ton (i.e. short ton) of material landfilled is 0.497497606 tCO<sub>2</sub>, which is equal to 0.548242362 tCO<sub>2</sub>/Mt

Thus, PD shall clarify:

- The reason for including GHG emissions from composting in the landfill activity of food waste.
- The inconsistency with the provided source.

## 3. Green Residue, Putrescible

- The applied value of emission factor is 0.72026406 tCO<sub>2</sub>/Mt.
- As per US WARM v16, the GHG emissions from “Food Waste” per ton (i.e. short ton) of material landfilled is 0.497497606 tCO<sub>2</sub>, which is equal to 0.548242362 tCO<sub>2</sub>/Mt
- As per US WARM v16, the GHG emissions from “Food Waste” per ton (i.e. short ton) of material composted is 0.15213492 tCO<sub>2</sub>, which is equal to 0.16765269 tCO<sub>2</sub>/Mt
- Thus, the calculated value of EF for this parameter is 0.715895048 tCO<sub>2</sub>/Mt

Therefore, PD shall clarify the inconsistency in the value of EF with the provided source

- The value of EF has been found inconsistent with Table 1-3 of the provided source “RDOCECA/MELCCFP, May 1, 2024”:

S. No.	Energy Type	Unit	Applied value as per Appendix 4 of MR, in tCO <sub>2</sub> /unit	Value in the applied (Table 1-3), in kgCO <sub>2</sub> /unit	Comment
a)	Butane	L	0.00175929	1,730	-
b)	Biomass and bark residue	Kg	0.00003653	3,000 (biomass)	-
c)	Diesel	L	0.00277272	2,663	-
d)	Gasoline	L	0.00237785	-	Kindly confirm the fuel referred for this EF value
e)	Coal coke	Mt	0.00248614	2,480 kg/kg	-
f)	Fuel oil no. 2	L	0.00273394	2,725	-
g)	Fuel oil no. 6	L	0.00314256	3,124	-
h)	Propane	L	0.00153929	1,510	-

- The following discrepancies were observed for the value of emission factor (EF) sourced from “RIN 1990-2021, 2023”:

- Kindly confirm the value of emission factor of “**Electricity**”, as per table A13-6, is taken for the year 2020 and 2021.
- The value applied for EF of “**Natural Gas**” in this monitoring period (MP) cannot be traced in the provided source. PP shall confirm the table no. to substantiate this value.

- c) The value applied for EF of “**Lubricants (Used Oils)**” in this monitoring period (MP) cannot be traced in the provided source. PP shall confirm the table no. to substantiate this value.
6. PP shall provide the source of EF value of Scope 13 waste type, **Digestate Spreading**.

### Project participant response

Date : 23/01/2025

#### 1. Food/Organic waste (Composted)

a) - b) There is no inconsistency. For food/organic waste, the baseline scenario considered is the GHG emissions of landfilling food waste (not ‘landfill diversion’), and the alternative/project scenario is the GHG emissions of composting food waste.

- The baseline emission factor for the landfilling of food waste is 0.55261138 tCO<sub>2</sub>e/Mt.
- The project emission factor for the composting of food waste is -0.16765269 tCO<sub>2</sub>e/Mt.

$$0.55261138 - (0.16765269) = 0.72026406 \text{ tCO}_2\text{e/Mt}$$

To calculate the GHG emission reductions for food waste composting, we compare the emissions from the baseline scenario (landfilling) to the project scenario (composting). Specifically, we use the baseline EF for landfilling and subtract the emissions calculated using the composting EF. The difference represents the GHG reductions achieved through composting instead of landfilling.

Emission Factors for Waste Management								
US EPA WARM v.16, December 2023								
Per Ton Estimates of GHG Emissions for Baseline and Alternative Management Scenarios								
Source:								
<a href="https://www.epa.gov/warm/versions-waste-reduction-model#v16">https://www.epa.gov/warm/versions-waste-reduction-model#v16</a>								
Emission factors in MtCO <sub>2</sub> e per short tons have been converted to MtCO <sub>2</sub> e per metric tons in the table below by dividing by the conversion factor:								
Since 1 short ton= 2,000 lbs and 1 metric ton= 2,204 lbs								
						0.90744		
Material	Matériel (équivalence en français)	GHG Emissions per Ton of Material Produced (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Source Reduced (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Recycled (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Landfilled (MtCO <sub>2</sub> e)*	GHG Emissions per Ton of Material Combusted (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Composted (MtCO <sub>2</sub> e)	GHG Emission per Ton of Material Anaerobically Digested (MtCO <sub>2</sub> e)
Mixed Paper (primarily from offices)	Papier mélangé (principalement dans les bureaux)	8.11670045	-8.11670045	-3.94472204	0.12517310	-0.49335964	N/A	N/A
Food Waste	Déchets alimentaires	4.03304238	-4.03304238	N/A	0.55261138	-0.14795625	-0.16765269	-0.04408000
Food Waste (non-meat)	Déchets alimentaires (hors viande)	0.83867940	-0.83867940	N/A	0.55329983	-0.14795625	-0.16765269	-0.04408000
Food Waste (meat only)	Déchets alimentaires (viande uniquement)	16.64272383	-16.64272383	N/A	0.51065877	-0.14795625	-0.16765269	-0.04408000
Beef	Boeuf	33.15513713	-33.15513713	N/A	0.47434782	-0.14795625	-0.16765269	-0.04408000

#### 2. Food/Organic waste (Anaerobic digestion)

a) - b) There is no inconsistency, and composting is not included in this EF. In this case, for food/organic waste, the baseline scenario considered is the GHG emissions of landfilling food waste (not ‘landfill diversion’), and the alternative/project scenario is the GHG emissions of anaerobic digestion of food/organic waste.

- The baseline emission factor for the landfilling of food waste is 0.55261138 tCO<sub>2</sub>e/Mt.
- The project emission factor for anaerobic digestion of food waste is -0.04408000 tCO<sub>2</sub>e/Mt.

$$0.55261138 - (0.04408000) = 0.59669138 \text{ tCO}_2\text{e/Mt}$$

To calculate the GHG emission reductions for the anaerobic digestion of food waste, we compare the emissions from the baseline scenario (landfilling) to the project scenario (anaerobic digestion). Specifically, we use the baseline EF for landfilling and subtract the emissions calculated using the anaerobic digestion EF. The difference represents the GHG reductions achieved through anaerobic digestion instead of landfilling.

Emission Factors for Waste Management								
US EPA WARM v.16, December 2023								
Per Ton Estimates of GHG Emissions for Baseline and Alternative Management Scenarios								
Source: <a href="https://www.epa.gov/warm/versions-waste-reduction-model#v16">https://www.epa.gov/warm/versions-waste-reduction-model#v16</a>								
Emission factors in MtCO <sub>2</sub> e per short tons have been converted to MtCO <sub>2</sub> e per metric tons in the table below by dividing by the conversion factor: 0.90744								
Since 1 short ton= 2,000 lbs and 1 metric ton= 2,204 lbs								
Material	Matériel (équivalence en français)	GHG Emissions per Ton of Material Produced (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Source Reduced (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Recycled (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Landfilled (MtCO <sub>2</sub> e)*	GHG Emissions per Ton of Material Combusted (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Composted (MtCO <sub>2</sub> e)	GHG Emission per Ton of Material Anaerobically Digested (MtCO <sub>2</sub> e)
Mixed Paper (primarily from offices)	Papier mélangé (principalement dans les bureaux)	8.11670045	-8.11670045	-3.94472204	0.12517310	-0.49335964	N/A	N/A
Food Waste	Déchets alimentaires	4.03304238	-4.03304238	N/A	0.55261138	-0.14795625	-0.16765269	-0.04408000
Food Waste (non-meat)	Déchets alimentaires (hors viande)	0.83867940	-0.83867940	N/A	0.55329983	-0.14795625	-0.16765269	-0.04408000
Food Waste (meat only)	Déchets alimentaires (viande uniquement)	16.64272383	-16.64272383	N/A	0.51065877	-0.14795625	-0.16765269	-0.04408000
Beef	Boeuf	33.15513713	-33.15513713	N/A	0.47434782	-0.14795625	-0.16765269	-0.04408000

### 3. Green Residue, Putrescible

There is no inconsistency. For food/organic waste/green residue, the baseline scenario considered is the GHG emissions of landfilling food waste (not 'landfill diversion'), and the alternative/project scenario is the GHG emissions of composting food waste.

- The baseline emission factor for the landfilling of food waste is 0.55261138 tCO<sub>2</sub>e/Mt.
- The project emission factor for the composting of food waste is -0.16765269 tCO<sub>2</sub>e/Mt.

$$0.55261138 - (-0.16765269) = 0.72026406 \text{ tCO}_2\text{e/Mt}$$

To calculate the GHG emission reductions for food waste composting, we compare the emissions from the baseline scenario (landfilling) to the project scenario (composting). Specifically, we use the baseline EF for landfilling and subtract the emissions calculated using the composting EF. The difference represents the GHG reductions achieved through composting instead of landfilling.

Emission Factors for Waste Management								
US EPA WARM v.16, December 2023								
Per Ton Estimates of GHG Emissions for Baseline and Alternative Management Scenarios								
Source: <a href="https://www.epa.gov/warm/versions-waste-reduction-model#v16">https://www.epa.gov/warm/versions-waste-reduction-model#v16</a>								
Emission factors in MtCO <sub>2</sub> e per short tons have been converted to MtCO <sub>2</sub> e per metric tons in the table below by dividing by the conversion factor: 0.90744								
Since 1 short ton= 2,000 lbs and 1 metric ton= 2,204 lbs								
Material	Matériel (équivalence en français)	GHG Emissions per Ton of Material Produced (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Source Reduced (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Recycled (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Landfilled (MtCO <sub>2</sub> e)*	GHG Emissions per Ton of Material Combusted (MtCO <sub>2</sub> e)	GHG Emissions per Ton of Material Composted (MtCO <sub>2</sub> e)	GHG Emission per Ton of Material Anaerobically Digested (MtCO <sub>2</sub> e)
Mixed Paper (primarily from offices)	Papier mélangé (principalement dans les bureaux)	8.11670045	-8.11670045	-3.94472204	0.12517310	-0.49335964	N/A	N/A
Food Waste	Déchets alimentaires	4.03304238	-4.03304238	N/A	0.55261138	-0.14795625	-0.16765269	-0.04408000
Food Waste (non-meat)	Déchets alimentaires (hors viande)	0.83867940	-0.83867940	N/A	0.55329983	-0.14795625	-0.16765269	-0.04408000
Food Waste (meat only)	Déchets alimentaires (viande uniquement)	16.64272383	-16.64272383	N/A	0.51065877	-0.14795625	-0.16765269	-0.04408000
Beef	Boeuf	33.15513713	-33.15513713	N/A	0.47434782	-0.14795625	-0.16765269	-0.04408000

### 4. Gasoline EF can be found in Table 1-3 under 'Essence', p.58:

<https://www.legisquebec.gouv.qc.ca/fr/pdf/rc/Q-2.%20R.%2015.pdf>

**Tableau 1-3. Facteurs d'émission selon le type de combustible**

(QC.1.3.1, 1, QC.1.3.2, QC.1.4.1, 1, QC.1.4.4, QC.17.3.1, 2)

Combustibles et biocombustibles liquides	CO <sub>2</sub> (kg/l)	CO <sub>2</sub> (kg/GJ)	CH <sub>4</sub> (g/l)	CH <sub>4</sub> (g/GJ)	N <sub>2</sub> O (g/l)	N <sub>2</sub> O (g/GJ)
Essence aviation	2,342	69,87	2,200	65,630	0,230	6,862
Diesel	2,663	69,53	0,133	3,473	0,400	10,44
Carburacteur	2,534	67,75	0,080	2,139	0,230	6,150
Kérosène						
- Services d'électricité	2,534	67,25	0,006	0,159	0,031	0,823
- Usages industriels	2,534	67,25	0,006	0,159	0,031	0,823
- Autoconsommation	2,534	67,25	0,006	0,159	0,031	0,823
- Foresterie, construction et secteurs commerciaux et institutionnels	2,534	67,25	0,026	0,690	0,031	0,823
Propane						
- Secteur résidentiel	1,510	59,66	0,027	1,067	0,108	4,267
- Autres secteurs	1,510	59,66	0,024	0,948	0,108	4,267
Éthane	0,976	56,68	S. O.	S. O.	S. O.	S. O.
Butane	1,730	60,83	0,024	0,844	0,108	3,797
Lubrifiants	1,410	36,01	S. O.	S. O.	S. O.	S. O.
Essence	2,289	65,40	2,700	77,140	0,050	1,429
Mazout léger						

The Excel sheet with the EF used has been **shared in attachment**.

5. The following discrepancies were observed for the value of emission factor (EF) sourced from “RIN 1990-2021, 2023”:

- The emission factor for **electricity** corresponds to the value presented for the year 2020 in Table A13-6 of Part 3 of the RIN 1990-2021, p.66: [En81-4-2021-3-eng.pdf](#). The value is 1.9 g CO<sub>2</sub>eq/kWh or 0.0000019 tCO<sub>2</sub>eq/kWh.

Table A13-6 Electricity Generation and GHG Emission Details for Quebec	1990	2000	2005	2010	2015	2017	2018	2019	2020	2021
<b>Greenhouse Gas Emissions<sup>b</sup></b>										
<b>kt CO<sub>2</sub> equivalent</b>										
<b>Combustion</b>	<b>1 490</b>	<b>570</b>	<b>610</b>	<b>420</b>	<b>210</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>290</b>	<b>250</b>
Coal	—	—	—	—	—	—	—	—	—	—
Natural Gas	110	190	270	220	0.0	0.80	2.0	1.2	0.8	1.4
Other Fuels <sup>c</sup>	1 380	370	350	200	210	240	240	240	290	250
<b>Other Emissions<sup>d</sup></b>	<b>—</b>	<b>2.5</b>	<b>4.6</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Overall Total<sup>b, c, d</sup></b>	<b>1 490</b>	<b>570</b>	<b>620</b>	<b>420</b>	<b>210</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>290</b>	<b>250</b>
<b>Electricity Generation<sup>b, i</sup></b>										
<b>GWh</b>										
<b>Combustion<sup>j</sup></b>	<b>1 980</b>	<b>1 150</b>	<b>1 390</b>	<b>1 510</b>	<b>960</b>	<b>1 310</b>	<b>1 350</b>	<b>1 240</b>	<b>1 270</b>	<b>1 280</b>
Coal	—	—	—	—	—	—	—	—	—	—
Natural Gas	—	190	210	200	0.0	0.0	0.0	0.0	0.0	0.0
Other Fuels	1 980	960	1 170	1 310	960	1 310	1 350	1 240	1 270	1 280
<b>Nuclear</b>	<b>4 070</b>	<b>4 890</b>	<b>4 480</b>	<b>3 550</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Hydro</b>	<b>112 000</b>	<b>153 000</b>	<b>155 000</b>	<b>161 000</b>	<b>175 000</b>	<b>182 000</b>	<b>180 000</b>	<b>180 000</b>	<b>176 000</b>	<b>183 000</b>
<b>Other Renewables<sup>k</sup></b>	<b>—</b>	<b>170</b>	<b>420</b>	<b>1 550</b>	<b>6 420</b>	<b>9 530</b>	<b>10 200</b>	<b>10 700</b>	<b>10 800</b>	<b>10 500</b>
<b>Other Generation<sup>l, m</sup></b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Overall Total<sup>j</sup></b>	<b>118 000</b>	<b>160 000</b>	<b>161 000</b>	<b>168 000</b>	<b>182 000</b>	<b>193 000</b>	<b>191 000</b>	<b>191 000</b>	<b>188 000</b>	<b>195 000</b>
<b>Greenhouse Gas Intensity<sup>n</sup></b>										
<b>Generation Intensity (g GHG / kWh electricity generated)</b>										
CO <sub>2</sub> intensity (g CO <sub>2</sub> / kWh)	13	3.5	3.7	2.5	1.1	1.2	1.3	1.2	1.5	1.3
CH <sub>4</sub> intensity (g CH <sub>4</sub> / kWh)	0.0004	0.0005	0.0010	0.0004	0.0	0.0	0.0	0.0002	0.0	0.0
N <sub>2</sub> O intensity (g N <sub>2</sub> O / kWh)	0.0003	0.0002	0.0004	0.0001	0.0	0.0	0.0	0.0001	0.0	0.0
<b>Generation Intensity (g CO<sub>2</sub> eq / kWh)<sup>j</sup></b>	<b>13</b>	<b>3.6</b>	<b>3.8</b>	<b>2.5</b>	<b>1.1</b>	<b>1.2</b>	<b>1.3</b>	<b>1.2</b>	<b>1.5</b>	<b>1.3</b>
<b>Losses</b>										
Unallocated Energy (GWh) <sup>n, p</sup>	7 280	12 500	9 060	12 800	2 570	11 900	7 630	2 110	1 950	2 110
SF <sub>6</sub> Emissions (kt CO <sub>2</sub> eq) <sup>q</sup>	37	36	30	31	74	22	58	38	69	69
<b>Consumption Intensity (g GHG / kWh electricity consumed)</b>										
<b>Consumption Intensity (g CO<sub>2</sub> eq / kWh)<sup>j</sup></b>	<b>14</b>	<b>4.1</b>	<b>4.3</b>	<b>2.9</b>	<b>1.6</b>	<b>1.4</b>	<b>1.6</b>	<b>1.5</b>	<b>1.9</b>	<b>1.7</b>

Notes:

Data presented include emissions, generation and intensity for facilities classified under NAICS code 22111 – Electric Power Generation.

a. Preliminary data.

b. Emissions based on data taken from the Report on Energy Supply-Demand in Canada, Catalogue No. 57-003-XIB, Statistics Canada.

c. Includes GHG emissions from the combustion of refined petroleum products (light fuel oil, heavy fuel oil, and diesel), petroleum coke, still gas and other fuels not easily categorized.

d. GHG emissions from on-site combustion of fuel not directly related to electricity generation.

e. GHG emissions from the flaring of land for hydro dams are not included.

- The value applied for the EF of “**Natural Gas**” is from Table A6.1-1 and A6.1-3 (p. 257-258): [En81-4-2021-2-eng.pdf](#)

- The value applied for EF of “**Lubricants (Used Oils)**” is from Table A6.2-9 (p.270) : [En81-4-2021-2-eng.pdf](#)



Documentation provided by project participant																																											
<ul style="list-style-type: none"> <li>Excel sheet with the EF used named 'EF-Energy-MR8-ID929'</li> </ul>																																											
VVB assessment				Date: 15/02/2025																																							
<p>1. <b>Food/Organic waste (Composted)</b></p> <p>a) PP has provided the justification that the baseline scenario considered GHG emissions of landfilling of food waste and project scenario is considered as the GHG emissions of Composted. Thus, both the GHG emissions has been considered for this emission factor. Thus, the comment is <b>CLOSED</b>.</p> <p>b) PP shall provide the non-default options selected in the worksheet "Analysis Input" of US WARM v16 excel sheet and provide justification of choosing these selected options. The comment is <b>OPEN</b>.</p> <p>2. <b>Food/Organic waste (Anaerobic digestion)</b></p> <p>a) PP has provided the justification that the baseline scenario considered GHG emissions of landfilling of food waste and project scenario is considered as the GHG emissions of anaerobic digestion. Thus, both the GHG emissions has been considered for this emission factor. Thus, the comment is <b>CLOSED</b>.</p> <p>b) PP shall provide the non-default options selected in the worksheet "Analysis Input" of US WARM v16 excel sheet and provide justification of choosing these selected options. The comment is <b>OPEN</b>.</p> <p>3. <b>Green Residue, Putrescible</b></p> <p>PP shall provide the non-default options selected in the worksheet "Analysis Input" of US WARM v16 excel sheet and provide justification of choosing these selected options. The comment is <b>OPEN</b>.</p> <p>4. PP has provided the excel sheet "EF-Energy-MR8-ID929" to substantiate the applied values of the following parameter with the provided source:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 5%;">S. No.</th> <th style="width: 20%;">Energy Type</th> <th style="width: 5%;">Unit</th> <th style="width: 20%;">Applied value as per Appendix 4 of MR, in tCO<sub>2</sub>/unit</th> <th style="width: 50%;">VVB Assessment</th> </tr> </thead> <tbody> <tr> <td>a)</td> <td>Butane</td> <td>L</td> <td>0.00175929</td> <td rowspan="2">This is the calculated value in terms of tCO<sub>2</sub> equivalent, after factoring the emission related to methane and nitrogen oxide. The input values have been found consistent with the provided source.</td> </tr> <tr> <td>b)</td> <td>Biomass and bark residue</td> <td>Kg</td> <td>0.00003653</td> </tr> <tr> <td>c)</td> <td>Diesel</td> <td>L</td> <td>0.00277272</td> <td rowspan="6">These are the calculated values in terms of tCO<sub>2</sub> equivalent, after factoring the emission related to methane and nitrogen oxide. The input values have been found consistent with the provided source.</td> </tr> <tr> <td>d)</td> <td>Gasoline</td> <td>L</td> <td>0.00237785</td> </tr> <tr> <td>e)</td> <td>Coal coke</td> <td>Mt</td> <td>0.00248614</td> </tr> <tr> <td>f)</td> <td>Fuel oil no. 2</td> <td>L</td> <td>0.00273394</td> </tr> <tr> <td>g)</td> <td>Fuel oil no. 6</td> <td>L</td> <td>0.00314256</td> </tr> <tr> <td>h)</td> <td>Propane</td> <td>L</td> <td>0.00153929</td> </tr> </tbody> </table> <p>Thus, the comment is <b>CLOSED</b>.</p> <p>5.</p>					S. No.	Energy Type	Unit	Applied value as per Appendix 4 of MR, in tCO <sub>2</sub> /unit	VVB Assessment	a)	Butane	L	0.00175929	This is the calculated value in terms of tCO <sub>2</sub> equivalent, after factoring the emission related to methane and nitrogen oxide. The input values have been found consistent with the provided source.	b)	Biomass and bark residue	Kg	0.00003653	c)	Diesel	L	0.00277272	These are the calculated values in terms of tCO <sub>2</sub> equivalent, after factoring the emission related to methane and nitrogen oxide. The input values have been found consistent with the provided source.	d)	Gasoline	L	0.00237785	e)	Coal coke	Mt	0.00248614	f)	Fuel oil no. 2	L	0.00273394	g)	Fuel oil no. 6	L	0.00314256	h)	Propane	L	0.00153929
S. No.	Energy Type	Unit	Applied value as per Appendix 4 of MR, in tCO <sub>2</sub> /unit	VVB Assessment																																							
a)	Butane	L	0.00175929	This is the calculated value in terms of tCO <sub>2</sub> equivalent, after factoring the emission related to methane and nitrogen oxide. The input values have been found consistent with the provided source.																																							
b)	Biomass and bark residue	Kg	0.00003653																																								
c)	Diesel	L	0.00277272	These are the calculated values in terms of tCO <sub>2</sub> equivalent, after factoring the emission related to methane and nitrogen oxide. The input values have been found consistent with the provided source.																																							
d)	Gasoline	L	0.00237785																																								
e)	Coal coke	Mt	0.00248614																																								
f)	Fuel oil no. 2	L	0.00273394																																								
g)	Fuel oil no. 6	L	0.00314256																																								
h)	Propane	L	0.00153929																																								



<p>a) PP has justified that the emission factor of electricity has been considered for the year 2020, as the value 2021 is based on the preliminary data and is subjected to change. Thus, the comment is <b>CLOSED</b>.</p> <p>b) The emission factor for Natural Gas is a calculated value in terms of tCO<sub>2</sub> equivalent, after factoring the emission related to methane and nitrogen oxide (from Table A6.1-3). The input values have been found consistent with the provided source (En81-4-2021-2-eng.pdf). Thus, the comment is <b>CLOSED</b>.</p> <p>c) Table A6.2-9 of the provided source (En81-4-2021-2-eng.pdf) confirms the value of 2,260 gCO<sub>2</sub>/L, which has been found consistent with Appendix 4 of the MR v1.1. Thus the comment is <b>CLOSED</b>.</p> <p>6. The comment is not addressed. Thus, the comment is <b>OPEN</b>.</p>	
<b>Project participant response</b>	<b>Date : 26/02/2025</b>
<p>1 b) All parameters chosen are the default options. E.F. used in calculation sheets from the EPA WARM v.16 are correct.</p> <p>2 b) All parameters chosen are the default options. E.F. used in calculation sheets from the EPA WARM v.16 are correct.</p> <p>3 b) All parameters chosen are the default options. E.F. used in calculation sheets from the EPA WARM v.16 are correct.</p> <p>6. The EF value of the waste type, digestate spreading has been developed by a third party Certi Conseil. See PDF file named 'EF Digestate Spreading-Certi-Conseil-v.30 06 2023-V. FINAL' in attachment, <b>page 3</b>, for details regarding the EF.</p>	
<b>Documentation provided by project participant</b>	
<ul style="list-style-type: none"> <li>EF Digestate Spreading-Certi-Conseil-v.30 06 2023-V. FINAL</li> <li>WARM v16-MR8-Cross-referencing-R2 findings-WS</li> </ul>	
<b>VVB assessment</b>	<b>Date: 06/03/2025</b>
<p>1. a) Closed.</p> <p>b) PP has provided the calculation sheet in correlation with the values of EPA Warm v16 values. The EF value has been correctly calculated and found consistent with the MR v1.2. Thus, the comment is <b>CLOSED</b>.</p> <p>2. a) Closed.</p> <p>b) PP has provided the calculation sheet in correlation with the values of EPA Warm v16 values. The EF value has been correctly calculated and found consistent with the MR v1.2. Thus, the comment is <b>CLOSED</b>.</p> <p>3. a) Closed.</p> <p>b) PP has provided the calculation sheet in correlation with the values of EPA Warm v16 values. The EF value has been correctly calculated and found consistent with the MR v1.2. Thus, the comment is <b>CLOSED</b>.</p> <p>6. PP has provided the third-party report to substantiate the EF value of digestate spreading. The value has been found consistent with the supportive evidence. Further, the references in the report has been cross-checked with the published articles and found consistent with the report. Thus, the comment is <b>CLOSED</b>.</p> <p>CL#02 is <b>CLOSED</b>.</p>	

<b>CL ID</b>	<b>03</b>	<b>Section no.</b>	<b>3.3 of MR</b>	<b>Date : 15/02/2025</b>
<b>Description of CL</b>				
There are several inconsistencies observed in the MR (Section 3.3) and corresponding ER sheet (ID929 AnnexB-MP8-Confidential- (2023)-2024-v.1.1):				
<b>1. CF-0216:</b>				

<p>The average ER value for PAI under CF 0216 is mentioned as 127 tCO<sub>2</sub>e in the MR, which does not match the calculated values in the ER sheet (ER 2023 scope 3 &amp; 13, row 47). PP shall clarify.</p>	
<p><b>2. CF-0710:</b> The start date for both PAIs under CF -0710 is being mentioned as 10/01/2023 for facilities M and P. Also, it is unclear to deduce from the evidence provided against amount of biomass for CF-0710, that to which facility (M or P) these receipts refer. PP shall clarify and explain the source of data referring to input data against amount of biomass collected under CF-0710.</p>	
<p><b>3. CF-1002:</b> a) The start date of the PAI mentioned in the MR is 11/06/2015 which does not match with the evidence provided. PP shall clarify. b) The adhesion contract signing date mentioned in the MR is 24/03/2024, which does not match with the evidence provided. PP shall clarify. c) The new PAIs added under CF-1002 are 24 as indicated in the PD and ER sheet. However, the average ERs for this CF are calculated by considering 25 PAIs (Average ERs = Total ERs/no. of PAIs). PP shall clarify the inconsistency.</p>	
<p><b>4. CF-1201</b> The number of new PAIs considered under CF-1201 (Page 33 of MR v1.1) are inconsistent with the ER sheet. There is no new PAI inclusion under CF-1201 as per the ER sheet. PP shall clarify the inconsistencies observed.</p>	
<b>Project participant response</b>	<b>Date : 26/02/2025</b>
<p>1. PP has corrected in the MR the ER value for the PAI under CF-0216 mentioned as 127 tCO<sub>2</sub>e to 92 tCO<sub>2</sub>e to match the calculated values in the ER sheet. 2. CF-0710 has been removed from this MR. 3. a) <i>PP has provided as the start date, the earliest contract signed by the final party (destination point) on 28/09/2015. PP has revised the start date in the MR section 3.3. The contract has been provided in attachment (see p. 13)</i> b) The adhesion contract was signed by the Client Facility on 26/03/2024. The date has been corrected in the MR section 3.3. c) The correct number of PAIs is 24. PP has corrected the average ERs in the MR section 3.3 to 2,696 tCO<sub>2</sub>e 4. <i>There was a typo for the CF ID number. CF ID number in the MR page 33 should be CF-1204, not 1201. PP has corrected the MR.</i></p>	
<b>Documentation provided by project participant</b>	
<ul style="list-style-type: none"> <li>Related to 3a) 'Contrat sci-rab_CCL_WestrockRocktenn_2015' (see page p.13)</li> </ul>	
<b>VVB assessment</b>	<b>Date: 03/03/2025</b>
<p>1. The ER value for PAI under CF-216 has now been corrected as per ER sheet. Closed. 2. CF-710 is not considered and has now been removed from the MR8. Closed. 3. a. The start date of PAI under CF-1002 has now been corrected. Closed. b. The adhesion contract date has also been corrected in the MR. Closed. c. The average ERs for CF-1002 have now been estimated by considering 24 PAIs and deemed correct. Closed. 4. The CF ID -1201 has now been revised to CF- 1204 which has new PAIs added under the current monitoring period. Closed.</p>	
CL#03 is <b>CLOSED</b> .	

CL ID	04	Section No.	TR Comments	Date : 03/04/2025
Description of CL				

PP shall clarify the following concerns:	
<ol style="list-style-type: none"> <li>1. The ER sheet tab “sample for verification” suggest that the minimum sampling size for the VVB audit was calculated. Kindly clarify the significance of this tab if all the data has been shared by the PP and sampling is applied.</li> <li>2. Demonstrate how the error factor is determined and applied (for eg the calibration certificate is not found for CF-0708 (Lauzon Bois Energetique) for the period from 01-Jan-2023 to 24-Jan-2023</li> </ol>	
<b>Project participant response</b>	<b>Date : 03/04/2025</b>
<ol style="list-style-type: none"> <li>1. The ER sheet tab “sample for verification” is included to provide a reference for determining the minimum sampling size for the audit as indicated by the VM0018. While all data has been shared by the PP, the sampling approach ensures a representative review of the dataset. If the full dataset is reviewed, this tab serves as a guideline rather than a requirement. The VVB has audited 85 PAIs, which is above the minimum requirement calculated of 65 PAIs.</li> <li>2. The calculation is included in ER sheet “CF-0708   GDS”. PP has removed 3 weeks worth of biomass as the error factor.</li> </ol>	
<b>Documentation provided by project participant</b>	
<b>VVB assessment</b>	<b>Date: 04/04/2025</b>
<ol style="list-style-type: none"> <li>1. PP has justified that the ER sheet tab ‘sample for verification’ demonstrate the minimum sampling size for the audit, as per the applied methodology. Also, the sampling approach applied by the assessment team are based on the same approach, however, the VVB sampling approach is not influenced by the PP. Thus, the comment is CLOSED.</li> <li>2. PP has stated that they are not seeking ER claims for the 3 weeks period where the measuring instrument was not calibrated. This approach has been found acceptable by the VVB. However, this discrepancy was observed in one of sampled CFs visited during the on-site audit. Thus, PP shall clarify how it is ensured that this discrepancy is not present in any other client facilities or PAIs. The comment is OPEN.</li> </ol>	
CL#04 is OPEN.	
<b>Project participant response</b>	<b>Date : 04/04/2025</b>
<ol style="list-style-type: none"> <li>2. PP ensures that measuring instrument calibration is verified through a structured approach that includes documentation and systematic verification: <ol style="list-style-type: none"> <li>a) Annual audits with supportive evidence: during annual audits, PP collects supporting evidence from client facilities to confirm the proper calibration of measuring instruments in accordance with Measurement Canada regulations, ensuring compliance with national standards. The evidence collected includes calibration certificate, instrument examination certificate, or maintenance logs.</li> <li>b) Verification as part of monitoring and reporting: the collected supporting evidence is verified as part of the monitoring and reporting procedure to ensure that measuring instruments used for data collection comply with calibration requirements and are in conformity. If any non-conformities are identified, corrective actions are applied to prevent overestimation of ERs.</li> <li>c) Client Facility collaboration: PP works closely with client facilities to ensure that instruments are calibrated in accordance with Measurement Canada regulations.</li> </ol> </li> </ol>	
<b>Documentation provided by project participant</b>	
<b>VVB assessment</b>	<b>Date: 08/04/2025</b>
<ol style="list-style-type: none"> <li>2. PP has stated the implemented measures which ensure that there is no gap calibration of measuring equipment in other client facilities or PAIs.</li> </ol>	
CL#04 is CLOSED.	

Table 3. CAR from this verification

CAR ID	01	Section no.	3.3	Date : 19/12/2024
Description of CAR				
PP shall provide evidence for investment analysis of the new client facility, CF-0216.				
Project participant response				Date : 26/02/2025
The evidence for the investment analysis for the PAIs of the new client facility CF-0216 has been provided in the shared folder 'IRR-Investment Analysis > CF-0216', and the information has been added in section 3.3 of the MR.				
Documentation provided by project participant				
VVB assessment				Date: 03/03/2025
The evidence for investment analysis of the CF-0216 is provided to VVB and the related information has now been included in section 3.3 of MR. <b>Closed.</b>				

Table 4. FAR from this verification

FAR ID	NA	Section No.	NA	Date : DD/MM/YYYY
Description of FAR				
There is no FAR from this verification				
Project participant response				Date : DD/MM/YYYY
Documentation provided by project participant				
VVB assessment				Date: DD/MM/YYYY

## APPENDIX 6: MONITORED PARAMETERS AND ITS CALIBRATION DETAILS

It should be noted that the calibration certificates for the following scenarios are not required:

- Electricity Meter – These meters are installed, calibrated and maintained by Hydro Quebec, which is a government authority responsible for generation, transmission and distribution of electricity in Quebec.
- Billing purposes – If a measuring instrument (such as a truck scale, fuel pump, or meter) is used for billing purposes, it must be certified and calibrated according to federal regulations/43/ under Measurement Canada/43/

Client Facility	Monitored Parameters	Calibration Required (Yes/No)	Calibration Details	Further details
CF-0113	Electricity	No	NA	–
	Diesel	No	NA	Bills generated by “Filgo Energie”

	Propane	No	NA	Bills generated by “Beton Michaud”
	Fuel Oil	No	NA	Bills generated by “Beton Michaud”
CF-0122	Biomass	No	NA	Bills generated by “Coop Forestire”
	Fuel Oil	No	NA	Bills generated by “Les Petroles BSL”
CF-0216	Electricity	No	NA	–
CF-0702	Electricity	No	NA	–
CF-0707	Volume of Sludge	Yes	Calibration Dates: 25/10/2022 – 31/10/2023 04/10/2023 – 31/10/2024	Calibrated by “Balance GTR Inc.”
CF-0708	Volume of Biomass	Yes	Calibration Dates: 24/01/2023 – 23/01/2024 21/01/2024 – 20/01/2025	Calibrated by “Balance Precision”
CF-1002	Biomass	No	NA	Bills generated by various entities, as there are 10 vendors for Biomass during the current MP.
CF-1204	Coke	No	NA	Bills generated by “Primetrade Incorporated”
	Natural Gas	No	NA	Bills generated by “Energir S.E.C.”
	Propane	No	NA	Bills generated by “Energies Sonic Inc.”
	Electricity	No	NA	–
CF-1510	Electricity	No	NA	–
	Biomass	No	NA	Bills generated by “Matrec GFL Environmental Inc.”
	Cardboard	Yes, via Weigh scale	NA	Calibrated by “Balance Universal”

# APPENDIX 7: SAMPLING APPROACH

The following procedures were followed during the sampling:

- The sample size was calculated for the population of 58 CFs, using the online application (<https://www.calculator.net/sample-size-calculator.html>)

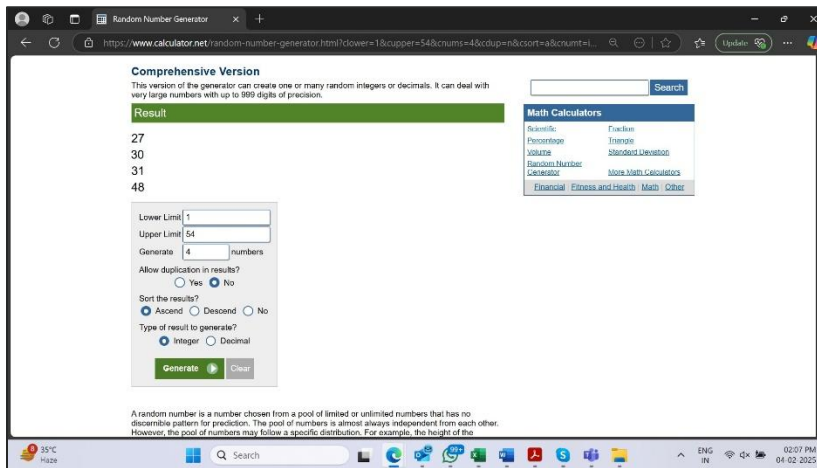
The screenshot shows the 'Sample Size Calculator' interface on the website calculator.net. The 'Find Out The Sample Size' section is active, displaying a 'Result' of 7. The input fields are set to: Confidence Level: 90%, Margin of Error: 30%, Population Proportion: 50%, and Population Size: 58. The 'Calculate' button is highlighted. Below this, the 'Find Out the Margin of Error' section is visible with a Confidence Level of 95%.

- The samples were segregated based on the type of client facility (Old, New or Old with New PAIs).
- These 3 groups were arranged in ascending order of the CF IDs and were randomly selected (using the online application: <https://www.calculator.net/random-number-generator.html>).

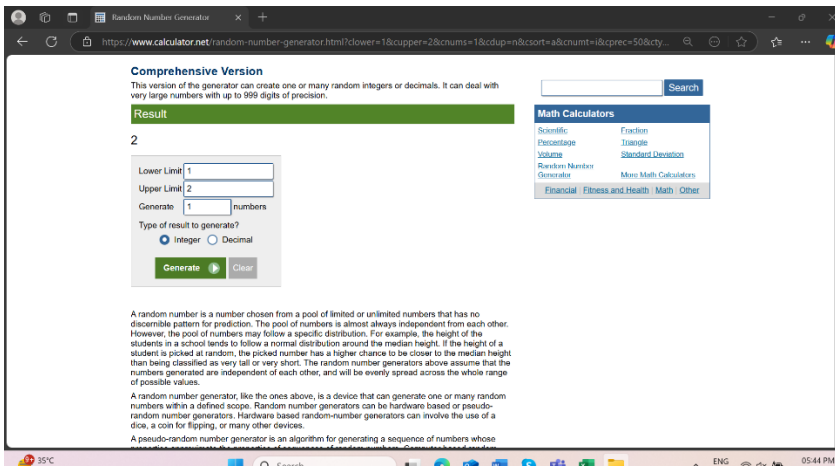
Screenshot of random selection for New CFs with new PAIs

The screenshot shows the 'Random Number Generator' interface on the website calculator.net. The 'Comprehensive Version' is selected, and the 'Result' section displays the numbers 1 and 3. The input fields are set to: Lower Limit: 1, Upper Limit: 4, and Generate: 2 numbers. The 'Generate' button is highlighted. The interface also includes options for 'Allow duplication in results?' (set to No), 'Sort the results?' (set to Ascend), and 'Type of result to generate?' (set to Integer).

### Screenshot of random selection for Old CFs with Old PAIs



### Screenshot of random selection for Old CFs with new PAIs



- The screenshots for the selected CFs are as follows:

### Screenshot of selected samples of New CFs with New PAIs

1	Client Facility 0122
2	Client Facility 0216
3	Client Facility 0710
4	Client Facility 1002

Screenshot of selected samples of Old CFs with Old PAIs

I27						
	A	B	C			
7		5	Client Facility 0106			
8		6	Client Facility 0108			
9		7	Client Facility 0112			
0		8	Client Facility 0113			
1		9	Client Facility 0114			
2		10	Client Facility 0115			
3		11	Client Facility 0118			
4		12	Client Facility 0119			
5		13	Client Facility 0120			
6		14	Client Facility 0121			
7		15	Client Facility 0201			
8		16	Client Facility 0202			
9		17	Client Facility 0204			
0		18	Client Facility 0206			
1		19	Client Facility 0207			
2		20	Client Facility 0211			
3		21	Client Facility 0213			
4		22	Client Facility 0402			
5		23	Client Facility 0404			
6		24	Client Facility 0405			
7		25	Client Facility 0408			
8		26	Client Facility 0701			
9		27	Client Facility 0702			
0		28	Client Facility 0703			
1		29	Client Facility 0706			
2		30	Client Facility 0707			
3		31	Client Facility 0708			
4		32	Client Facility 0801			
5		33	Client Facility 0807			
6		34	Client Facility 0810			
7		35	Client Facility 0901			
8		36	Client Facility 1201			
9		37	Client Facility 1202			
0		38	Client Facility 1203			
1		39	Client Facility 1204			
2		40	Client Facility 1205			
3		41	Client Facility 1501			
4		42	Client Facility 1504			
5		43	Client Facility 1505			
6		44	Client Facility 1506			
7		45	Client Facility 1507			
8		46	Client Facility 1508			
9		47	Client Facility 1509			
0		48	Client Facility 1510			
1		49	Client Facility 1511			
2		50	Client Facility 1601			