ENERGY EFFICIENCY AND SOLID WASTE DIVERSION ACTIVITIES WITHIN THE QUEBEC SUSTAINABLE COMMUNITY 7TH MONITORING REPORT

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1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The Energy Efficiency and Solid Waste Diversion Activities within the Quebec Sustainable Community project is a grouped project led by WILL Solutions Inc. ("WILL") as the unique project proponent (Sustainable Community Service Promoter (SCSP)), 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 (version 1.0).

This grouped project, implemented since January 1st, 2010, generates emission reduction through the aggregation of implemented project activity instances (PAI) that reduce emissions via reduced energy demand and methane avoidance from waste diversion. Each implemented PAI is categorized according to 10 Generic PAI listed in section 3.3 which encapsulates the types of technologies or measures eligible to the Quebec Sustainable Community (QSC) as described in the renewed Project Description in May 2021.

This grouped project is intended to stimulate and finance owners and operators of ICI (Industrial, Commercial, and Institutional) buildings, also referred to as "Client Facilities" – large and small – located in the Province of Quebec, in Canada, for their GHG emission reduction efforts, by providing access to the voluntary carbon credit markets and beyond any regulated compliance.

This group project is designed to be simple, yet rigorous in its application, measurement, and monitoring. Even though the eligible activities vary, energy consumption and waste management are similar across many organizations. The main objectives are as follow:

a. To gradually aggregate into a "Sustainable Community or cluster", up to 2,000 Client Facilities, located in the province of Quebec, Canada that will achieve an estimated 34,250,000 tCO_2e of GHG emission reductions for the period 2020-2029.
b. To collect ground data in real-time, and consequently, stimulate and improve ICI building's sustainability.
c. To stimulate and finance small-scale actions carried out by ICI sites that aim to avoid methane emissions by diverting waste from landfills with more efficient waste recovery management, reducing energy demand, and increasing energy efficiency in buildings.

The total GHG emission reductions generated in the monitoring period from January 1st, 2022, to December 31st, 2022, amount to 745,534 tCO_2e. This is attributed to the 2,430 PAIs active under this period, among which 1,778 PAIs are newly included in this Monitoring report.

In this regard, for this monitoring period, the yearly average is equivalent to 306.8 tCO_2e per PAI.

1.2 Audit History

Audit type	Period	Program	Validation/verification body name	Number of years
Project Validation	11-07-2013	VCS	SGS United Kingdom Ltd.	n.a.
1st Monitoring Report	01-01-2010–31-10-2013	VCS	Perry Johnson Registrars Carbon Emissions Services, Inc (PJRCES)	3 years and 10 months
2nd Monitoring Report	01-11-2013–31-12-2015	VCS	Perry Johnson Registrars Carbon Emissions Services, Inc (PJRCES)	1 years and 2 months
3rd Monitoring Report	01-01-2016–31-12-2016	VCS	Earthood Services Private Limited (ESPL)	1
4th Monitoring Report	01-01-2017–31-12-2018	VCS	Earthood Services Private Limited (ESPL)	1
5th Monitoring Report	01-01-2019–31-12-2019	VCS	Earthood Services Private Limited (ESPL)	1
Project Renewal	01-01-2020–31-12-2029	VCS	Earthood Services Private Limited (ESPL)	n.a.
6th Monitoring Report	01-01-2020–31-12-2021	VCS	LGAI Technological Center, S.A. (APPLUS+)	2
7th Monitoring Report	01-01-2022–31-10-2022	VCS	Earthood Services Private Limited (ESPL)	1

1.3 Sectoral Scope and Project Type

Sectoral scope[1]	Sectoral scope 3 and sectoral scope 13
Project activity type	Energy demand; Waste handling and disposal

[1] Projects, activities, or methodologies may be developed under any of the 16 VCS sectoral scopes: https://verra.org/programs/verified-carbon-standard/vcs-program-details/#sectoral-scopes.

1.4 Project Proponent

Organization name	Will Solutions Inc.
Contact person	Claudia Lesage
Title	GHG Quantification Manager
Address	Beloeil, Province of Quebec, Canada, J3G 5Z5
Telephone	1 438 897-8007
Email	claudia@solutionswill.com

Organization name	Will Solutions Inc.
Contact person	*Martin Clermont*
Title	*President, Founder, Engineer, and Carbon Expert*
Address	Beloeil, Province of Quebec, Canada, J3G 5Z5
Telephone	1 438 897-8009
Email	mclermont@solutionswill.com

Organization name	*Will Solutions Inc.*
Contact person	*Anne-Marie Gendron*
Title	*Chief Operating Officer (COO)*
Address	Beloeil, Province of Quebec, Canada, J3G 5Z5
Telephone	*1 438 897-8001*
Email	amgendron@solutionswill.com

1.5 Other Entities Involved in the Project

There are no other entities involved in the project.

1.6 Project Start Date

Project start date	01-January-2010
Justification	The project began generating GHG emission reductions in 01-January-2010.

1.7 Project Crediting Period

Crediting period	Ten years, twice renewable
Start and end date of first or fixed crediting period	First period: 01-January-2010 to 31-December-2019 **Renewal period**: 01-January-2020 to 31-December-2029

1.8 Project Location

All Client Facilities included in the grouped project are located inside the province of Quebec, Canada. They are linked by and grouped under a common geographic boundary – in this case the territory of the Province of Quebec – where regional conditions (i.e., electricity source, climate, waste processing schemes, etc.) and regulations (i.e., waste and emission regulations, etc.) are similar among different Client Facilities.

The map displayed below illustrates the territory of the Province of Quebec, which shares 12,000 km of land, rivers, and maritime borders with Ontario, Nunavut, Newfoundland and Labrador, Prince Edward Island, New Brunswick, Nova Scotia, and the United States. The 11 geodesic coordinates define the boundaries of the polygon encasing the Province of Quebec's territory. In this monitoring report, 87 Client Facilities are declared, with 58 that have provided the required data, which comprise 2,430 PAI, are all located within this polygon. A separate KML file has been provided to demonstrate all Client Facilities and their PAIs are situated within the polygon.

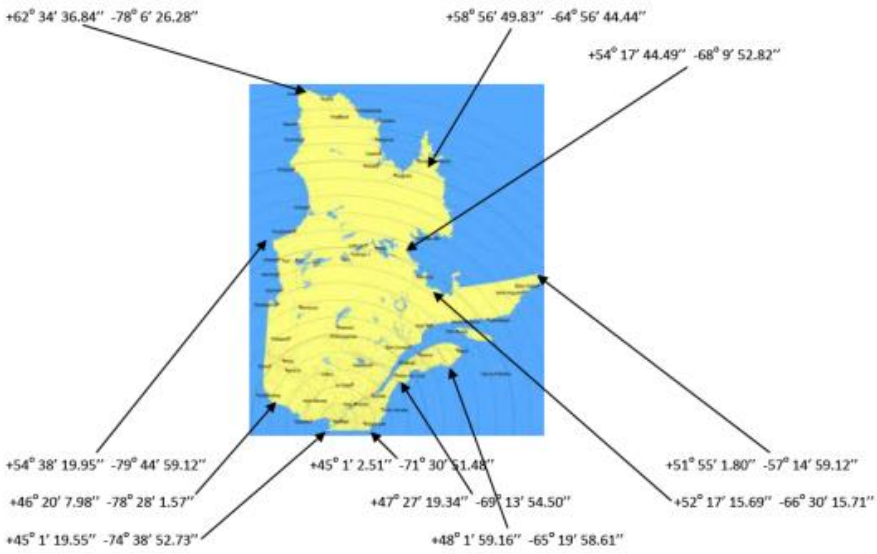


Figure 1 Geodesic coordinates of the polygon covering the Province of Quebec territory.

1.9 Title and Reference of Methodology

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	VM0018	Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community	1.0

1.10 Double Counting and Participation under Other GHG Programs

1.10.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

☐ Yes ☒ No

1.10.2 Registration in Other GHG Programs

Is the project registered or seeking registration under any other GHG programs?

☐ Yes ☒ No

1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions

1.11.1 No Double Claiming with Emissions Trading Programs or Binding Emission Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit?

☐ Yes ☒ No

The GHG reductions quantified in this Monitoring Report are not included in an emissions trading program or any other mechanism that includes GHG allowance trading. To ensure this, Will Solutions systematically excludes from its Monitoring Reports all facilities that are involved with the RSPEDE. More information on how the project proponent avoids double counting risks with the SPEDE can be found in Appendix 2.

1.11.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system?

☐ Yes ☒ No

1.11.3 Supply Chain (Scope 3) Emissions

Do the project activities affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?

☐ Yes ☒ No

If yes:

Is the project proponent(s) or authorized representative a buyer or seller of the product(s) (goods or services) that are part of a supply chain?

☐ Yes ☒ No

If yes:

Has the project proponent(s) or authorized representative posted a public statement on their website saying, “Carbon credits may be issued through the Verified Carbon Standard project [project ID] for the greenhouse gas emission reductions or removals associated with [project proponent or authorized representative organization name(s)] [name of product(s) whose emissions footprint is changed by the project activities].”

☐ Yes ☒ No

1.12 Sustainable Development Contributions

The Sustainable Community (SC) solution consolidates project activity instances (PAI) that reduce emissions. These PAIs involve reducing energy demand and diverting waste from landfills to avoid methane emissions within the Province of Quebec, Canada.

By enhancing energy efficiency, reducing energy demand, and adopting sustainable waste management practices, the SC project directly contributes to SDGs 9, 10, 11, 12, 13 and 17. The description of each SD contributions and their progress is provided in Table 1 below and evidence of the project's SD contributions are provided in Appendix 5.

WILL Solutions is in line with the Quebec government's Strategy 2023-2028[2]. Strategy 2023-2028 is the Quebec government's response to the United Nations' 2030 Agenda for Sustainable Development. It is also aligned with the principles of the Paris Climate Agreement to which Quebec is contributing.

[2] https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/environnement/publications-adm/developpement-durable/strategie-gouvernementale/strategie-gouv-developpement-durable-2023-2028-enbref.pdf

Table 1: Sustainable Development Contributions

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime
1)	9.3	Number of client facilities (SMEs) with access to financial services	Implemented activities to increase	• 800K CAD$ paid up during the monitoring period to Sustainable Community Client Facilities (SMEs) to implement GHG reduction projects. • 2,430 reduction projects (PAI) realized over 150 SMEs with with most located in remote area on 13 of the 17 administrative regions of Quebec.	• 2,8 M CAD$ over the project lifetime to Sustainable Community SMEs to implement GHG reduction projects. • 8.9% of Quebec's population (near 800,000 people), associated to innovative projects through their organizations (SME, municipalities, and NGOs). • Over 2,400 reduction projects (PAI) realized by over 150 SMEs with most located in remote areas, on 12 of the 17 administrative regions of Quebec.
2)	10.2	By 2030, 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.	Implemented activities to increase	8.9% of the Quebec's population territory, located mainly in remote areas, has participated through their organizations (SME, municipalities, and NGOs), to the group project.	The renewal of our group project by VCS in May 2021 for another 10-year period (starting January 1st, 2020, to December 31, 2029), combined with driving climate action allow higher inclusion inside the Quebec's territory.

3)	11.A	Support positive economic, social, and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.	Implemented activities to increase	14% of Quebec's municipalities (160 municipal organisations over 1,130 Quebec municipalities) participating to the Sustainable Community project, which is in line to mitigate climate risks.	14% of Quebec's municipalities (160 municipal organisations over 1,130 Quebec municipalities) participating to the Sustainable Community project, which is in line to mitigate climate risks.
4)	12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.	Implemented activities to increase	As calculated, 577,936 tCO_2e from waste emissions was avoided through the reduction of waste generation, recycling, reuse, and composting, mainly realized in remote regions.	The renewal of our group project by VCS (May 2021) over the period of 2020-2029 will allow to reach ≈10,000,000 tCO_2e associated with the reduction of waste generation. Over the period 2020-2029, the group project has enabled the reduction of 1,899,568 tCO_2e associated with the reduction of waste.
5)	13.0	Tonnes of greenhouse gas (GHG) emissions avoided and reduced.	Implemented activities to increase	745,534 tCO_2e of greenhouse gas emissions (GHG) avoided and/or reduced.	5,23 million tCO_2e of greenhouse gas emissions (GHG) avoided and/or reduced.
6)	17.17	Number of contributing NGO and partnership to the sustainability movement.	Implemented activities to increase	No further changes this monitoring period	14 NGOs directly associated to the Sustainability movement.

1.13 Commercially Sensitive Information

Information concerning the names of the companies (i.e. Client Facilities) taking part in the grouped project is not disclosed out of respect for the law[3] on the protection of personal data, as well as for reasons of commercial competitiveness. See Appendix 1 for further details.

2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT

2.1 Stakeholder Engagement and Consultation

2.1.1 Stakeholder Identification

There have been no changes in the stakeholder make up since the Project Description renewal validation realized by Verra on May 2021, and no change since the latest monitoring report.

Stakeholder Identification	N/A ; Stakeholders have not changed during this monitoring period.
Legal or customary tenure/access rights	N/A ; Legal or customary tenure/access rights have not changed during this monitoring period.
Stakeholder diversity and changes over time	N/A ; Stakeholders have not changed during this monitoring period.
Expected changes in well-being	N/A ; does not apply to this project type
Location of stakeholders	N/A ; Stakeholders have not changed during this monitoring period.
Location of resources	N/A **;** does not apply to this project type

[3] https://www.quebec.ca/nouvelles/actualites/details/loi-25-nouvelles-dispositions-protegeant-la-vie-privee-des-quebecois-certaines-dispositions-entrent-en-vigueur-aujourdhui-43212

2.1.2 Stakeholder Consultation and Ongoing Communication

Ongoing consultation	As the project proponent, WILL maintains ongoing and regular communication with project stakeholders such as social development partners, collaborators, members (Client Facilities) and VCU buyers throughout the monitoring period. Methods used to engage local stakeholders include ongoing communications through social media platforms, newsletters, as well as the media and news section on the project proponent website. In addition, stakeholders can provide at any time their input or concerns over the project through email correspondence or phone calls. A GHG auditor from WILL's team is specifically assigned to each client facility and represents a privileged interlocutor and a point of contact available at all times to receive questions, comments or inputs. Each client facility or VCU buyer also has access to a dedicated account manager who can be contacted at any time. In its latest sustainability report[4] published in July 2023, WILL reported that it has produced over 100 publications that promote sustainability on its website, blog and social media (LinkedIn, Facebook, Twitter, and Instagram). In addition, the promotion of GHG reduction projects and communications regarding the ongoing status of the project were realized through webinars, newsletters, and virtual meetings.
Date(s) of stakeholder consultation	01-01-2022 to 31-12-2022 (ongoing communications)
Communication of monitored results	The monitoring results are communicated through our yearly sustainability report as well as individual carbon credit portfolio for participating client facilities.

[4] https://solutionswill.com/wp-content/uploads/2023/07/Sustainable-Development-Report-2022-2023-Will-Solutions-EN-July-2023.pdf

	The monitoring results are also available on our website to facilitate the customer journey for our stakeholders interested in this documentation[5].
Consultation records	The quantification manager and the sales manager are responsible for collecting, documenting, and addressing the inputs and concerns, when applicable.
Stakeholder input	No comments, input, or concerns from local stakeholders were received for this monitoring period. However, if comments or concerns are received, the project proponent will address the comments or concerns raised by the stakeholders when appropriate.

2.1.3 Free, Prior, and Informed Consent

Consent	The client facilities and the PAIs included in the group project are small-scale and do not affect property rights, usage, or resources. Each client facility retains full ownership of its facilities and resources. The project does not alter or infringe upon ownership rights in any way. The role of the PP is limited to coordinating the grouped project, without any claim or control over the properties or operations of the participating client facilities. In this regard, the PP has a written procedure in place to ensure that the adhesion of all Client Facilities to the grouped project is carried out with FPIC's underlying principles - transparency, informed decision-making, and ongoing engagement. In addition, the scope of this grouped project does not include natural resources extraction, land development, and other activities that may impact LPs and LCs rights, lands, or livelihoods.
Outcome of FPIC	The outcome of the FPIC process is the signature of a contractual agreement between the client facility and the

[5] Published monitoring results on the project proponent website: https://solutionswill.com/en/our-community/sustainable-communities-project-documentation/

	project proponent which confirms all parties have voluntarily joined the grouped project. The scope of this project does not include natural resources extraction, land development and other activities that may impact LPs and LCs rights, and therefore the group project and the PAIs have not encroached on land, relocated people without consent, and forced physical or economic displacement.

2.1.4 Grievance Redress Procedure

Grievances received	Resolution and outcome
N/A	No grievances were raised during this monitoring period. Stakeholders can communicate grievances through email correspondence,phone calls or by filling a contact form. Emails,phone numbers and contact forms are available on the project proponent website.

2.1.5 Public Comments

Summary of comments received	Actions taken
No comments received	N/A

2.2 Risks to Stakeholders and the Environment

The project proponent has implemented proactive strategies to mitigate the identified risks. As a certified B Corporation for the period 2022-2025[6], the project proponent has earned commendable ratings for their contributions to employee welfare, customer satisfaction, community engagement, and environmental stewardship.

Risk identified	Mitigation or preventative measure taken

[6] See section on Community https://www.bcorporation.net/en-us/find-a-b-corp/company/solutions-will/

Risks to stakeholder participation	No risk identified	WILL has actively engaged stakeholders in climate action through over 100 communications, including webinars and social media posts. They have facilitated webinars aimed at the community and encouraged participation in climate-related activities eligible to the group projects. Additionally, WILL maintains a dedicated webpage for stakeholders to submit comments at any time, ensuring open and continuous dialogue.
Working conditions	No risk identified	PP has established internal policies that align with the standards required for B Corp certification, demonstrating their commitment to workers.[7]
Safety of women and girls	No risk identified	PP has established internal policies that align with the standards required for B Corp certification, demonstrating their commitment to workers and community[8].
Safety of minority and marginalized groups, including children	No risk identified	PP has established internal policies that align with the standards required for B Corp certification, demonstrating their commitment to workers and community[9].
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials)	No risk identified	The PP has established internal policies that align with the standards required for B Corp certification, demonstrating their commitment to the

[7] See section on Workers: https://www.bcorporation.net/en-us/find-a-b-corp/company/solutions-will/

[8] See section on Community https://www.bcorporation.net/en-us/find-a-b-corp/company/solutions-will/

[9] See section on Community https://www.bcorporation.net/en-us/find-a-b-corp/company/solutions-will/

		environment[10]. The company commits to ongoing maintenance and disclosure of its environmental impact in its annual reports[11].

2.3 Respect for Human Rights and Equity

2.3.1 Labor and Work

Discrimination and sexual harassment	The project proponent as well as Client Facilities operate with respect for Human Rights and Equity in accordance with existing laws and regulations in Quebec and Canada.
Management experience	Project Proponent is certified B Corp since 2019 which means that they meet rigorous standards of social and environmental performance, accountability, and transparency.
Gender equity in labor and work	The project proponent as well as Client Facilities operate with respect for Human Rights and Equity in accordance with existing laws and regulations in Quebec and Canada.
Human trafficking, forced labor, and child labor	The project proponent as well as Client Facilities operate with respect for Human Rights and Equity in accordance with existing laws and regulations in Quebec and Canada.

2.3.2 Human Rights

The project proponent and Client Facilities operate in compliance with provincial and federal legislation and in full respect of IPs and LCs rights.

2.3.3 Indigenous Peoples and Cultural Heritage

The project proponent and Client Facilities operate in compliance with provincial and federal legislation and full respect of the IPs and LCs rights.

[10] See section on Environnement https://www.bcorporation.net/en-us/find-a-b-corp/company/solutions-will/

[11] Sustainability Report (2022-2023) https://solutionswill.com/wp-content/uploads/2023/07/Sustainable-Development-Report-2022-2023-Will-Solutions-EN-July-2023.pdf

2.3.4 Property Rights

Disputes over rights to territories and resources	N/A
Respect for property rights	N/A

2.3.5 Benefit Sharing

Summary of the benefit sharing plan	The Project Proponent (WILL Solutions) is a Canadian entity that produces high-quality greenhouse gas (GHG) reduction converted into carbon credits. Will Solutions guides its members (i.e. Client Facilities) (mainly SME, municipalities and NPOs) free of charge on a customized GHG reduction journey, recommending and qualifying projects (PAI) in energy efficiency and waste management – all initiatives that reduce a carbon footprint. Once implemented, WILL measures the resulting GHG reductions and converts them into high-quality, measurable, and auditable carbon credits available for sale, with 80% of the proceeds returned to its members.
Benefit sharing during the monitoring period	See above comment.

2.4 Ecosystem Health

	Risk identified	Mitigation or preventative measure taken during the monitoring period
Impacts on biodiversity and ecosystems	No risk identified	PAIs included in this group project are small-scale and associated to the sectoral scope 3 and 13. PAIs are always implemented within buildings or close to existing infrastructure which leads to minimal to no disruptive impacts on biodiversity and ecosystems.
Soil degradation and soil erosion	No risk identified	PAIs included in this group project are small-scale and associated to the sectoral scope 3 and 13. PAIs are always implemented within

		buildings or close to existing infrastructure which leads to minimal to no impacts on soil such as degradation and soil erosion.
Water consumption and stress	No risk identified	PAIs included in this group project are small-scale and associated to the sectoral scope 3 and 13. PAIs included in this group project, from both sectoral scopes, do not lead to significant increase in water consumption and stress
Usage of fertilizers	No risk identified	PAIs included in this group project are small-scale and associated to the sectoral scope 3 and 13, therefore do not involve the use of fertilizers.

2.4.1 Rare, Threatened, and Endangered species

Species or habitat	N/A, this is not an AFOLU project.

2.4.2 Introduction of species

This grouped project is not involved with planting or species introduction; therefore, this section is not applicable.

Species introduced	Classification	Justification for use	Adverse effects and mitigation
N/A	N/A	N/A	N/A

2.4.3 Ecosystem conversion

This grouped project is not an ARR, ALM, WRC or ACoGS project and is not involved with ecosystem conversion; therefore, this section is not applicable.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The project activity has been consistently operational throughout the monitoring period, and the maintenance of operations of all PAIs included in this monitoring report has been duly verified with supporting evidence. No events have had significant impacts on the GHG reductions or monitoring during this monitoring period.

Client facilities that did not provide sufficient data and evidence are excluded and considered to have zero net emission reduction in this report. For this monitoring period, 103 PAIs from 29 Client Facilities were considered to have zero net emission reductions. The table below presents clearly how many Client Facilities and PAIs are considered, excluded, and added during this monitoring period:

	2022	
	Client Facilities	PAI
Considered during this monitoring period	54	721
Excluded from this monitoring period	29	104
Added during this monitoring period	4	1,709
Total	**87**	**2,534**

The reasons attributed to excluded Client Facilities and PAIs are specified in the Annex B.

There have been no changes to the project proponent during the monitoring period. The grouped project remains solely under the oversight and management of the project proponent as indicated in section 1.4 of this Monitoring Report.

3.2 Deviations

3.2.1 Methodology Deviations

There are no deviations to the VM0018 methodology in this Monitoring Report.

3.2.2 Project Description Deviations

1. **Description of the Deviation**

   For this monitoring period of 01-01-2022 to 31-12-2022, the project deviates from the approved Project Document (PD) renewal version 1.2 for project ID929 in the procedure to calculate baseline and project emissions, specifically the data and parameters available at validation.

   The approved PD requires the following parameters to be used and available at validation for the calculation of waste decomposition and methane release: oxidation factor (OX), fraction

of degradable organic carbon (DOC_f), fraction of degradable organic carbon by weight (DOC_j), methane correction factor (MCF), and decay rate (k_j).

The project during this monitoring period has instead used default emission factors from the U.S. Environmental Protection Agency Waste Reduction Model (EPA WARM) (version 15).

2. Reason and Justification for Deviation

For this monitoring period, the deviation to use landfill default emission factors from the EPA WARM instead of default values of the CDM Tool 04 was determined to be more accurate due to regional specificity and relevance to the Province of Quebec.

Essentially, the WARM is developed with North American context in mind, whereas the CDM's Tool 04 is designed for global context. For example, the EPA WARM is tailored to reflect the waste composition and landfill practices prevalent in North America, whereas the CDM Tool 04 is based on broader, global datasets that may not accurately represent Quebec's situation. In addition, the WARM takes into consideration the climatic conditions relevant to North America, whereas the CDM Tool 04 has a wider range of climate conditions which are less specific to Quebec. Selecting emission factors from the WARM ensures that high-quality, and region-specific data representative of North American context are used.

In addition, the WARM allows the customization of results based on landfill gas recovery practices, and anaerobic digestion practices, and provides default values.

3. Deviation Outcomes and Impacts

The impacts of the deviation are non-significant.

Following the CDM's *Guidelines on Assessment of Different Types of Changes from the Project Activity as Described in the Registered PDD* (EB 48 report Annex 67)[12], the deviation does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario.

a) Additionality:

Emission factors from the EPA WARM have always been used to calculate emission reductions from sectoral scope 13 PAIs in the past five monitoring reports for this group project. Therefore, this does not impact the validity of the investment analysis or barrier analysis established at the time of the project registration, thus, it is not affecting additionality.

b) Changes in the scale of the project activities

Using emission factors from the EPA WARM has no impact on the scale of the grouped project activity or the project activity instances.

c) Applicability of the methodology:

Using emission factors from the EPA WARM does not impact the applicability of the methodology. The primary objectives and principles of the VM0018 methodology

[12] CDM's *Guidelines on Assessment of Different Types of Changes from the Project Activity as Described in the Registered PDD* (EB 48 report Annex 67): https://cdm.unfccc.int/EB/048/eb48_repan67.pdf

remain consistent regardless of the emission factors used. The core goal is to calculate GHG reductions from project activities that divert waste for alternative disposal options and avoid methane emissions accurately, and the EPA WARM provides scientifically validated emission factors for this purpose.

d) Baseline scenario:

The baseline scenario for sectoral scope 13 remains the same, which is the anaerobic decomposition of a waste type in a landfill. The emission factors from the WARM used to calculate the baseline scenario are specifically selected for a landfill management scenario per waste type.

In conclusion, the deviation the project deviation is applied due to a significant increase in accuracy and reliability when calculating baseline and project emissions, since the WARM is more representative of the North American context.

3.3 Grouped Projects

In this monitoring period, 4 new Client Facilities and 5 former Client Facilities with 1,709 new PAIs have been added to the grouped project. Each new project activity instance fully meets the eligibility criteria set out in the project description. For each new PAI, the eligibility criteria are addressed as follow:

Criteria 1: Must be located inside the Quebec territory

To demonstrate PAIs are located inside the Quebec territory, geographic coordinates are provided in a KML file as requested in the VCS Standard v.4.7. At the time of verification, the VVB is given access to each individual calculation spreadsheet and evidence documentation to confirm the location of each new PAI on the Client Facility's site.

Criteria 2: Be implemented after January 1st 2015

To demonstrate PAIs are implemented after January 1st, 2015, Client Facilities must provide evidence documentation to confirm the implementation date of a new PAI. At the time of verification, the VVB is given access to evidence documentation to confirm the implementation date of each new PAI.

Criteria 3: Be a registered member of the SCSP project

To demonstrate each new Client Facilities are registered to the SCSP project, each Client Facility must sign an adhesion contract. At the time of verification, the VVB, is given access to adhesion contracts to confirm registration of each new Client Facility as a member of the SCSP project.

Criteria 4: Having or using a similar technology or measure as the generic PAI that are based on scope 3 and 13

Each new PAI must be associated with a relevant generic PAI[13] which are based on either the sectoral scope 3 or 13. The table below provides the list of 10 generic PAI to which PAIs can be associated according to the technology or measure it uses.

	Generic PAI	Sectoral Scope 3	Sectoral Scope 13
I	Biomass Energy Project	√	
II	Methane Emission Avoidance		√
III	Torrefied Biomass Combustible		√
IV	Saving Energy on Recycling Activities	√	
V	Heat Recovery	√	
VI	-		
VII	Energy Efficiency – Demand Side	√	
VIII	Energy Conversion	√	
IX	Energy Conservation	√	
X	Energy Efficiency – Demand Side from New Building or Major Renovation	√	
XV	Land Application of Biosolids		√
	Total:	7	3

Criteria 5: Be auditable and verifiable

Each new PAIs are audited and requested to provide supportive documentation to allow verification. At the time of verification, the VVB is given access to each individual calculation spreadsheet and evidence documentation for verification.

Criteria 6: The project unit (PAI) GHG reductions are inferior to 5,000 tCO_2e/year

GHG reductions for each individual PAI must be inferior to 5,000 tCO_2e/year. At the time of verification, the VVB is given access to each individual calculation spreadsheet to confirm the emission reductions for each PAI is aligned with the 5,000 tCO_2e/year capacity limit.

Below is provided the relevant information on new project activity instances included in this monitoring report to demonstrate how each new PAI meets the eligibility criteria listed above, and as set out in the PD. For each criteria, evidence is made available to the VVB.

[13] Generic PAIs have processes or outcomes which go beyond BAU practices and are defined as more efficient when compared to common practices. The Generic PAIs were validated by the VVB and the VCS Program in the renewal of the Project Description on May 24, 2021. New PAIs are recognized as additional if they can be associated with a generic PAI.

Client Facility 0113	**New PAI(s):** 3 (consolidated)	**Summary Description:** Energy conversion from fossil fuel to biomass evaporators for maple syrup production
Criteria 1: Be implemented after January 1st 2015		**Satisfied** ✓
a) 29/11/2019 b) 05/12/2021 c) 19/01/2022 All PAIs are eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory		**Satisfied** ✓
a) Pohénégamook, Quebec, CAN b) Amqui, Quebec, CAN c) Saint-Juste-du-Lac, Quebec, CAN Evidence of the location of these PAIs is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence)		**Satisfied** ✓
The CF signed the adhesion contract on 07/12/2017.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD		**Satisfied** ✓
These PAIs are associated to the generic PAI I: Biomass Project as specified in the PD and the sectoral scope 3. As per the definition of the generic PAI I, these PAIs use a biomass boiler to generate heat by converting biomass into energy.		
Criteria 5: Be auditable and verifiable		**Satisfied** ✓
These PAIs were successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.		
Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit		**Satisfied** ✓
For this monitoring period, the total reductions generated by the 3 new PAIs is 182 tCO2e. Therefore, reductions do not exceed the capacity limit of 5,000 tCO2e/year set in the VM0018.		
Methodology Applicability Conditions (conditions not already addressed above)		**Satisfied** ✓
Condition 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.		
These new PAIs are energy efficiency projects being added to the group project ID929. These new PAI enable a reduction in fossil fuels consumption through purchase and use of biomass evaporators.		
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.		
☒ Industrial building		
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)		
These PAIs involve the installation of biomass boilers in replacement of evaporators powered by fossil fuels, in this case fuel oil no.2, for heat generation. These PAI reduce fossil fuel consumption. Therefore, this project is aligned with the type of technologies or measures covered by the methodology.		
Are subject to the baseline scenario determined in the PD for the specified project activity		**Satisfied** ✓
The baseline scenario represents the situation before the project implementation where fossil fuels are used as the heating energy source.		
Not be or have been enrolled in another VCS project		**Satisfied** ✓
The CF has confirmed not being enrolled in another VCS project.		
Additionality: Investment Analysis		**Satisfied** ✓
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT.		

The PAIs yielded a negative IRR, indicating that it is a loss-making activity. However, the investment analysis shows that with revenues from carbon credits, losses are reduced which allows the conclusion that the carbon credits are additional to the PAI.

Client Facility 0113	**New PAI(s):** 12 (consolidated)	**Summary Description:** Energy conversion from fossil fuel to electric evaporators for maple syrup production

Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
a) 31/08/2017	e) 01/01/2020	i) 01/01/2021
b) 01/01/2020	f) 09/02/2022	j) 01/11/2021
c) 01/01/2019	g) 01/01/2021	k) 06/12/2021
d) 30/01/2020	h) 01/01/2021	l) 18/03/2022
All PAIs are eligible for crediting from the later of their respective start date indicated above.		

Criteria 2: Must be located inside the Quebec territory		**Satisfied ✓**
a) Les Méchins, QC	e) Marsoui, QC	i) Pohénégamook, QC
b) Saint-Alexandre-de-Kamouraska, QC	f) Squatec, QC	j) Saint-Simon-de-Rimouski, QC
c) Saint-Damasse-de-Matapédia, QC	g) Val-Brilliant, QC	k) Lyster, QC
d) Sainte-Véronique, QC	h) Saint-Fabien-de-Panet, QC	l) Saint-Narcisse-de-Rimouski, QC
Evidence of the location of these PAIs is provided for this monitoring period.		

Criteria 3: Be a registered member of the grouped project (ownership evidence)	**Satisfied ✓**
The CF signed the adhesion contract on 07/12/2017.	

Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD	**Satisfied ✓**
These PAIs are associated to the generic PAI VIII: Energy Conversion as specified in the PD and the sectoral scope 3. As per the definition of the generic PAI VIII, these PAIs convert an energy source from fossil fuels to cleaner form of energy, in this case, hydroelectricity, which emits less GHG through the replacement of an oil no.2 boiler to an electric boiler for heat generation.	

Criteria 5: Be auditable and verifiable	**Satisfied ✓**
These PAIs were successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.	

Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit	**Satisfied ✓**
For this monitoring period, the total reductions generated by the 12 new PAIs is 432 tCO_2e. Therefore, reductions do not exceed the capacity limit of 5,000 tCO_2e/year set in the VM0018.	

Methodology Applicability Conditions (conditions not already addressed above)	**Satisfied ✓**
Condition 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.	
These new PAIs are energy efficiency projects being added to the group project ID929. These new PAI enable a reduction in fossil fuels consumption through purchase and use of electric boilers.	
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.	
☒ Industrial building	
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)	
These PAIs involve the installation of electric boilers in replacement of evaporators powered by fossil fuels, in this case fuel oil no.2, diesel, and gasoline for heat generation. These PAI reduce fossil fuel consumption. Therefore, this project is aligned with the type of measures covered by the methodology.	

Are subject to the baseline scenario determined in the PD for the specified project activity	**Satisfied ✓**
The baseline scenario represents the situation before the project implementation where fossil fuels are used as the heating energy source.	
Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded a negative IRR, indicating that it is a loss-making activity. However, the investment analysis shows that with revenues from carbon credits, losses are reduced which allows the conclusion that the carbon credits are additional to the PAI.	

Client Facility 0113	**New PAI(s):** 5 (consolidated)	**Summary Description:** Replacement of fossil fuel evaporators to more energy efficient evaporators

Criteria 1: Be implemented after January 1st 2015			**Satisfied ✓**
a) 13/05/2018 b) 13/02/2018	c) 01/01/2019 d) 01/06/2019	e) 19/09/2018	
All PAIs are eligible for crediting from the later of their respective start date indicated above.			
Criteria 2: Must be located inside the Quebec territory			**Satisfied ✓**
a) Rimouski, QC b) Auclair, QC	c) Saint-Athanase, QC d) Pohénégamook, QC	e) Saint-Athanase, QC	
Evidence of the location of these PAIs is provided for this monitoring period.			
Criteria 3: Be a registered member of the grouped project (ownership evidence)			**Satisfied ✓**
The CF signed the adhesion contract on 07/12/2017.			
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD			**Satisfied ✓**
These PAIs are associated to the generic PAI VII: Energy Efficiency Demand Side as specified in the PD and the sectoral scope 3. As per the definition of the generic PAI VII, these PAIs reduce energy demand and consumption.			
Criteria 5: Be auditable and verifiable			**Satisfied ✓**
These PAIs were successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.			
Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit			**Satisfied ✓**
For this monitoring period, the total reductions generated by the 5 new PAIs is 170 tCO_2e. Therefore, reductions do not exceed the capacity limit of 5,000 tCO_2e/year set in the VM0018.			
Methodology Applicability Conditions (conditions not already addressed above)			**Satisfied ✓**
Condition 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.			
These new PAIs are energy efficiency projects being added to the group project ID929. These new PAIs reduce fossil fuels consumption through purchase and use of more energy-efficient evaporators			
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.			
☒ Industrial building			
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)			

These PAIs involve the installation of energy-efficient evaporators in replacement of traditional evaporators (diesel, fuel oil n.2, gasoline, or propane). These PAIs reduce fossil fuel consumption. Therefore, this project is aligned with the type of technologies or measures covered by the methodology.
Are subject to the baseline scenario determined in the PD for the specified project activity **Satisfied ✓**
The baseline scenario represents the situation before the project implementation where fossil fuels are used in higher quantity as an energy source.
Not be or have been enrolled in another VCS project **Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.
Additionality: Investment Analysis **Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded a negative IRR, indicating that it is a loss-making activity. However, the investment analysis shows that with revenues from carbon credits, losses are reduced which allows the conclusion that the carbon credits are additional to the PAI.

Client Facility 0118	**New PAI(s):** 8 (consolidated)	**Summary Description:** Conversion of the oil no. 2 heating system of 8 buildings to biomass
Criteria 1: Be implemented after January 1st 2015 **Satisfied ✓**		
The start sate of the PAI is 30/05/2015. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory **Satisfied ✓**		
The PAI is located in Rivière-Bleue, Quebec. Evidence of the location of these PAIs is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence) **Satisfied ✓**		
The CF signed the adhesion contract on 23/11/2017.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD **Satisfied ✓**		
This PAI is associated to the generic PAI I: Biomass Project as specified in the PD and the sectoral scope 3. As per the definition of the generic PAI I, this PAI uses a biomass boiler to generate heat by converting biomass into energy.		
Criteria 5: Be auditable and verifiable **Satisfied ✓**		
These PAIs were successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.		
Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit **Satisfied ✓**		
For this monitoring period, the total reductions generated by the PAI is 492 tCO_2e. Therefore, reductions do not exceed the capacity limit of 5,000 tCO_2e/year set in the VM0018.		
Methodology Applicability Conditions (conditions not already addressed above) **Satisfied ✓**		
Condition 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.		
These new PAIs are energy efficiency projects being added to the group project ID929. This new PAI enables a reduction in oil n.2 consumption through the new biomass heating system, which is operated in a heat network, and provides heat for 8 buildings.		

Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.	
☒ Institutional building	
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)	
This PAI involves the installation of a biomass heating system, which connects 8 buildings, to reduce oil no.2 consumption, which was previously used for heating. Therefore, this project is aligned with the type of technologies or measures covered by the methodology.	
Are subject to the baseline scenario determined in the PD for the specified project activity	**Satisfied ✓**
The baseline scenario represents the situation before the project implementation where fuel oil no.2 is used as the heating energy source.	
Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded a negative IRR, indicating that it is a loss-making activity. Consequently, the investment analysis shows that without revenues from carbon credits, the sustainability of these PAI could be at risk. In other words, while the IRR is negative, the loss is less important when revenues from carbon credits are involved. The additionality of this activity is key in ensuring the project's successful development.	

Client Facility 0408	**New PAI(s):** 7 (consolidated)	**Summary Description:** Landfill avoidance of post-production biomass through recycling and reuse
Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
The start sate of all 7 PAIs is 01/01/2022. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory		**Satisfied ✓**
Since individual PAIs correspond to the origin point of the biomass, each supplier is located as follows: a) L'Épiphanie, QC c) St-Michel-de-Bellechasse, QC e) Saint-Apollinaire, QC g) Lac-Poulin, QC b) Chateauguay, QC d) Maniwaki, QC f) St-Édouard-de-Maskinongé, QC Evidence of the location of these PAIs is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence)		**Satisfied ✓**
The CF signed the adhesion contract on 07/2018.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD		**Satisfied ✓**
This PAI is associated with the generic PAI II: Methane Avoidance as specified in the PD and the sectoral scope 13. As per the definition of the generic PAI II, this PAI applies and uses a measure where post-production biomass from the waste stream is diverted from landfill and reused. Therefore, this is aligned with the type of technologies or measures covered by the PD.		
Criteria 5: Be auditable and verifiable		**Satisfied ✓**
These PAIs were successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.		
Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit		**Satisfied ✓**

For this monitoring period, the total reductions generated by the 7 PAIs is 1,628 tCO_2e. Therefore, reductions do not exceed the capacity limit of 5,000 tCO_2e/year set in the VM0018.
Methodology Applicability Conditions (conditions not already addressed above) **Satisfied ✓**
Condition 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.
This new PAI is a waste management project being added to the group project ID929. This new PAI enables the avoidance of landfilling and methane emissions through the reuse of post-production biomass residues.
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.
☒ Industrial building
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)
This PAI involves a waste management approach that diverts landfilling of post-production biomass through reuse which leads to methane emissions avoidance. Therefore, this is aligned with the type of waste management measures covered by the methodology.
Are subject to the baseline scenario determined in the PD for the specified project activity **Satisfied ✓**
The baseline scenario represents the emissions from the landfill scenario of biomass.
Not be or have been enrolled in another VCS project **Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.
Additionality: Investment Analysis **Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded an IRR of 8% with carbon credits revenues against an IRR of 4% without carbon credits, indicating that carbon credits guarantee the additionality of the PAIs.

Client Facility 0708	**New PAI(s):** 8 **(consolidated)**	**Summary Description:** Landfill avoidance of post-production biomass through recycling and reuse
Criteria 1: Be implemented after January 1st 2015 **Satisfied ✓**		
The start sate of all 8 PAIs is 01/01/2022. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory **Satisfied ✓**		
Since individual PAIs correspond to the origin point of the biomass, each supplier is located as follows: a) Mansonville, QC c) Fassett, QC e) Plessisville, QC g) Wendake, QC b) Saint-Norbert, QC d) Thurso, QC f) Lavaltrie, QC h) Trois-Rivières, QC Evidence of the location of these PAIs is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence) **Satisfied ✓**		
The CF signed the adhesion contract on 07/2018.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD **Satisfied ✓**		
This PAI is associated with the generic PAI II: Methane Avoidance as specified in the PD and the sectoral scope 13. As per the definition of the generic PAI II, this PAI applies and uses a measure where post-production biomass from the waste stream is diverted from landfill and reused. Therefore, this is aligned with the type of measures covered by the PD.		

Criteria 5: Be auditable and verifiable	**Satisfied ✓**
These PAIs were successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.	
Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit	**Satisfied ✓**
For this monitoring period, the total reductions generated by the 8 PAIs is 887 tCO_2e. Therefore, reductions do not exceed the capacity limit of 5,000 tCO_2e/year set in the VM0018.	
Methodology Applicability Conditions (conditions not already addressed above)	**Satisfied ✓**
Condition 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.	
This new PAI is a waste management project being added to the group project ID929. This new PAI enables the avoidance of landfilling and methane emissions through the reuse of post-production biomass residues.	
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.	
☒ Industrial building	
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)	
This PAI involves a waste management approach that diverts landfilling of post-production biomass through reuse which leads to methane emissions avoidance. Therefore, this is aligned with the type of waste management measures covered by the methodology.	
Are subject to the baseline scenario determined in the PD for the specified project activity	**Satisfied ✓**
The baseline scenario represents the emissions from the landfill scenario of biomass.	
Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded an IRR of 12% with carbon credits revenues against an IRR of 8% without carbon credits, indicating that carbon credits guarantee the additionality of the PAIs.	

Client Facility 1201	**New PAI(s):** 1	**Summary Description:** Heat recovery from the installation of dust collectors
Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
The start sate of the PAI is 05/12/2016. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory		**Satisfied ✓**
The PAI is located at the client facility's facility in Saint-Édouard-de-Lotbinière, QC. Evidence of the location of the PAI is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence)		**Satisfied ✓**
The CF signed the adhesion contract on 07/2017.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD		**Satisfied ✓**

This PAI is associated to the generic PAI V: Heat Recovery as specified in the PD and the sectoral scope 3. As per the definition of the generic PAI V, this PAI applies and uses a measure and technology that recovers waste thermal energy released from a system or a process. This PAI involves the installation of a small on-site equipment – a dust collector and heat exchanger– to reduce hydroelectricity consumption by recovering and redirecting waste heat. Therefore, this is aligned with the type of technologies or measures covered by the PD.
Criteria 5: Be auditable and verifiable — **Satisfied ✓**
The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.
Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit — **Satisfied ✓**
For this monitoring period, the total reductions generated by the PAI is 6 tCO_2e. Therefore, reductions do not exceed the capacity limit of 5,000 tCO_2e/year set in the VM0018.
Methodology Applicability Conditions (conditions not already addressed above) — **Satisfied ✓**
Condition 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.
This new PAI is an energy efficiency project being added to the group project ID929. This new PAI with the installation of a dust collector with a heat exchanger enabled the reduction of the demand for hydroelectricity used to heat the client facility building.
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.
☒ Industrial building
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)
This PAI involves the installation of a small on-site equipment – a dust collector and heat exchanger– to reduce hydroelectricity consumption by recovering and redirecting waste heat. Therefore, this is aligned with the type of technologies or measures covered by the methodology. This PAI is not generating heat or electricity.
Are subject to the baseline scenario determined in the PD for the specified project activity — **Satisfied ✓**
The baseline scenario represents the situation before the implementation of the waste heat recovery system, which is the initial state of energy consumption and emissions, in this case higher consumption of hydroelectricity.
Not be or have been enrolled in another VCS project — **Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.
Additionality: Investment Analysis — **Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded a negative IRR, indicating that it is a loss-making activity. However, the investment analysis shows that with revenues from carbon credits, losses are reduced which confirms that the carbon credits are necessary and additional to the PAI.

Client Facility 1508	**New PAI(s): 25 (consolidated)**	**Summary Description:** Landfill diversion of organic matter through composting
Criteria 1: Be implemented after January 1st 2015 — **Satisfied ✓**		
The start sate of the PAI is 18/01/2019. The PAI is eligible for crediting from the later of their respective start date indicated above.		

Criteria 2: Must be located inside the Quebec territory	**Satisfied ✓**
Individual PAIs correspond to the origin point of the food waste, each origin points represent 25 towns and municipalities in two regional county municipalities (MRCs) located in Quebec: MRC d'Antoine-Labelle and MRC des Laurentides. Evidence of the location of the PAIs is provided for this monitoring period.	
Criteria 3: Be a registered member of the grouped project (ownership evidence)	**Satisfied ✓**
The CF signed the adhesion contract on 10/2017.	
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD	**Satisfied ✓**
This PAI is associated to the generic PAI II: Methane Emissions Avoidance as specified in the PD and the sectoral scope 13. As per the definition of the generic PAI II, this PAI applies and uses a measure where organic material is diverted from landfill and composted. This PAI involves the organic composting, which enables landfill avoidance. Therefore, this is aligned with the type of technologies or measures covered by the PD.	
Criteria 5: Be auditable and verifiable	**Satisfied ✓**
The PAIs were successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.	
Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit	**Satisfied ✓**
For this monitoring period, each individual PAI reduce an average 173 tCO_2e. The total reductions generated by all 25 PAIs is 4,333 tCO_2e. Therefore, reductions are inferior to the capacity limit of 5,000 tCO_2e/year set in the VM0018.	
Methodology Applicability Conditions (conditions not already addressed above)	**Satisfied ✓**
Condition 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.	
This new PAI is a waste management project being added to the group project ID929. This new PAI enables the avoidance of landfilling and methane emissions through composting.	
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.	
☒ Institutional building	
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)	
This PAI involves an alternative waste management approach that avoids landfilling of organic matter (i.e. organic composting) and consequently avoids methane emissions.	
Are subject to the baseline scenario determined in the PD for the specified project activity	**Satisfied ✓**
The baseline scenario represents the emissions from a landfill scenario for organic waste.	
Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded a negative IRR, indicating that it is a loss-making activity. Consequently, the investment analysis shows that without revenues from carbon credits, the sustainability and social acceptability of these PAI could be at risk. The additionality of this activity is key in ensuring the project's successful development.	

Client Facility 1509	New PAI(s): 1	Summary Description: Energy conversion of a propane boiler to a biomass boiler for wood dryers
Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
The start sate of the PAI is 27/11/2019. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory		**Satisfied ✓**
The PAI is located at the client facility's site in Mont-Laurier, Quebec. Evidence of the location of the PAIs is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence)		**Satisfied ✓**
The CF signed the adhesion contract on 06/2022.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD		**Satisfied ✓**
This PAI is associated with the generic PAI I: Biomass Project as specified in the PD. As per the definition of the generic PAI I, this PAI applies a thermal conversion process using heat to convert biomass into energy. This PAI involves the conversion of a propane boiler to a biomass boiler to generate heat to fuel wood dryers. The biomass originates from the CF's own post-production waste stream which would otherwise end up in landfills. Therefore, this is aligned with the type of technologies or measures covered by the PD.		
Criteria 5: Be auditable and verifiable		**Satisfied ✓**
The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.		
Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit		**Satisfied ✓**
The PAI reduced 553 tCO_2e for this monitoring period which does not exceed the reduction limit of 5,000 tCO_2e.		
Methodology Applicability Conditions (conditions not already addressed above)		**Satisfied ✓**
Condition 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.		
This new PAI is an energy efficiency project being added to the group project ID929. This new PAI enables the reduction of fossil fuel consumption associated with the conversion of propane to biomass for heat generation.		
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.		
☒ Industrial building		
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)		
This PAI enables the reduction of fossil fuel consumption associated with the conversion of a propane boiler to a biomass boiler for heat generation of wood dryers.		
Are subject to the baseline scenario determined in the PD for the specified project activity		**Satisfied ✓**
The baseline scenario represents the emissions from the energy used prior to the conversion to a biomass boiler, in this case, the propane consumption.		
Not be or have been enrolled in another VCS project		**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.		
Additionality: Investment Analysis		**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAI yielded an IRR of 11%, indicating that it is a loss-making activity despite the sale of biomass to customers showing a positive impact and reducing the client facility's losses. However, with carbon revenues, the IRR is 11%, still		

below the 16% average benchmark IRR but within the acceptable sigma range of 5%. The percentage increase of the IRR with carbon credits, highlights the project's positive financial impact.

Client Facility 1509	New PAI(s): 1	Summary Description: Landfill avoidance of post-production biomass through reuse from clients	
Criteria 1: Be implemented after January 1st 2015			**Satisfied ✓**
The start sate of the PAI is 01/01/2015. The PAI is eligible for crediting from the later of their respective start date indicated above.			
Criteria 2: Must be located inside the Quebec territory			**Satisfied ✓**
The PAI is located at the client facility's site in Mont-Laurier, Quebec. Evidence of the location of the PAIs is provided for this monitoring period.			
Criteria 3: Be a registered member of the grouped project (ownership evidence)			**Satisfied ✓**
The CF signed the adhesion contract on 06/2022.			
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD			**Satisfied ✓**
This PAI is associated with the generic PAI II: Methane Avoidance as specified in the PD. As per the definition of the generic PAI II, this PAI applies and uses a measure where biomass is diverted from landfill and reused. Therefore, this is aligned with the type of technologies or measures covered by the PD.			
Criteria 5: Be auditable and verifiable			**Satisfied ✓**
The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.			
Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit			**Satisfied ✓**
The PAI reduces 4,999 tCO2e for this monitoring period which is inferior to the reduction limit of 5,000 tCO2e			
Methodology Applicability Conditions (conditions not already addressed above)			**Satisfied ✓**
Condition 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.			
This new PAI is waste management project being added to the group project ID929. This new PAI enables the avoidance of landfilling and methane emissions through the reuse of post-production biomass residues from the client facility's waste stream.			
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.			
☒ Industrial building			
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)			
This new PAI enables the avoidance of landfilling and methane emissions through the reuse of post-production biomass residues from the client facility's waste stream.			
Are subject to the baseline scenario determined in the PD for the specified project activity			**Satisfied ✓**
The baseline scenario represents the emissions from the landfill scenario of biomass.			
Not be or have been enrolled in another VCS project			**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.			
Additionality: Investment Analysis			**Satisfied ✓**

The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAI yielded an IRR of 11%, indicating that it is a loss-making activity despite the sale of biomass to customers showing a positive impact and reducing the client facility's losses. However, with carbon revenues, the IRR is 11%, still below the 16% average benchmark IRR but within the acceptable sigma range of 5%. The percentage increase of the IRR with carbon credits, highlights the project's positive financial impact.

Client Facility 1509	**New PAI(s): 1**	**Summary Description:** Landfill avoidance of post-production biomass through reuse in a biomass boiler	
Criteria 1: Be implemented after January 1st 2015			**Satisfied ✓**
The start sate of the PAI is 27/11/2019. The PAI is eligible for crediting from the later of their respective start date indicated above.			
Criteria 2: Must be located inside the Quebec territory			**Satisfied ✓**
The PAI is located at the client facility's site in Mont-Laurier, Quebec. Evidence of the location of the PAIs is provided for this monitoring period.			
Criteria 3: Be a registered member of the grouped project (ownership evidence)			**Satisfied ✓**
The CF signed the adhesion contract on 06/2022.			
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD			**Satisfied ✓**
This PAI is associated with the generic PAI II: Methane Avoidance as specified in the PD. As per the definition of the generic PAI II, this PAI applies and uses a measure where biomass is diverted from landfill and reused. Therefore, this is aligned with the type of technologies or measures covered by the PD.			
Criteria 5: Be auditable and verifiable			**Satisfied ✓**
The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.			
Criteria 6: GHG reductions are inferior to 5,000 tCO2e/year capacity limit			**Satisfied ✓**
The PAI reduces 4,999 tCO2e for this monitoring period which is inferior to the reduction limit of 5,000 tCO2e			
Methodology Applicability Conditions (conditions not already addressed above)			**Satisfied ✓**
Condition 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.			
This new PAI is waste management project being added to the group project ID929. This new PAI enables the avoidance of landfilling and methane emissions through the reuse of post-production biomass residues from the client facility's waste stream.			
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.			
☒ Industrial building			
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)			
This new PAI enables the avoidance of landfilling and methane emissions through the reuse of post-production biomass residues from the client facility's waste stream.			
Are subject to the baseline scenario determined in the PD for the specified project activity			**Satisfied ✓**
The baseline scenario represents the emissions from the landfill scenario of biomass.			

Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAI yielded an IRR of 11%, indicating that it is a loss-making activity despite the sale of biomass to customers showing a positive impact and reducing the client facility's losses. However, with carbon revenues, the IRR is 11%, still below the 16% average benchmark IRR but within the acceptable sigma range of 5%. The percentage increase of the IRR with carbon credits, highlights the project's positive financial impact.	

Client Facility 1603	**New PAI(s):** 43 (consolidated)	**Summary Description:** Energy saving on food production through recycling activities
Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
The start sate of the PAI is 01/01/2018. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory		**Satisfied ✓**
The client facility is located in Saint-Hyacinthe, Quebec. Individual PAIs correspond to the origin point of the food waste, each origin points represent 43 food waste supplier or origin points, which are all located within Quebec. Evidence of the location of the PAIs is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence)		**Satisfied ✓**
The CF signed the adhesion contract on 09/2023.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD		**Satisfied ✓**
This PAI is associated to the generic PAI IV: Energy Saving on Recycling Activities as specified in the PD and the sectoral scope 3. As per the definition of the generic PAI IV, this PAI applies and uses a measure where a material that can be first recovered, and then transformed and re-used to avoid energy and virgin material consumption. This PAI involves the recovery of food waste, which is then transformed into animal food and reused by farmers, which enables energy savings related to food production. Therefore, this is aligned with the type of technologies or measures covered by the PD.		
Criteria 5: Be auditable and verifiable		**Satisfied ✓**
The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.		
Criteria 6: GHG reductions are inferior to 5,000 tCO_2e/year capacity limit		**Satisfied ✓**
These PAI reduce an average of 533 tCO_2e per year. Therefore, reductions are inferior to 5,000 tCO_2e/year. It is ensured that no individual PAI exceeds the reduction limit.		
Methodology Applicability Conditions (conditions not already addressed above)		**Satisfied ✓**
Condition 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.		
This new PAI is an energy efficiency project being added to the group project ID929. This new PAI enables the reduction of the demand for energy used in the production of animal food (i.e. grain).		
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.		
☒ Industrial building		

Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)	
This PAI involves the recovery of food waste, which is then transformed into animal food and sold to farmers, which enables energy savings related to food production.	
Are subject to the baseline scenario determined in the PD for the specified project activity	**Satisfied ✓**
The baseline scenario represents the situation before the project, which is the GHG emissions generated by the production of grain.	
Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded an IRR of 11% with carbon credit revenues, compared with an IRR of 0.9% without carbon credit revenues, indicating that carbon credits revenues significantly increase the return on investment of the PAI for the client facility. Consequently, the investment analysis shows that the carbon credits revenues are essential to the sustainability and deployment of the projects.	

Client Facility 1603	**New PAI(s):** 43 (consolidated)	**Summary Description:** Landfill avoidance of food waste through recovery
Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
The start sate of the PAI is 01/01/2018. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory		**Satisfied ✓**
The client facility is located in Saint-Hyacinthe, Quebec. Individual PAIs correspond to the origin point of the food waste, each origin points represent 43 food waste supplier or origin points, which are all located within Quebec. Evidence of the location of the PAIs is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence)		**Satisfied ✓**
The CF signed the adhesion contract on 09/2023.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD		**Satisfied ✓**
This PAI is associated to the generic PAI II: Methane Emissions Avoidance as specified in the PD and the sectoral scope 13. As per the definition of the generic PAI II, this PAI applies and uses a measure where food waste material is recovered and diverted from landfill. This PAI involves the recovery of food waste, which is then transformed into animal food and reused by farmers, which enables landfill avoidance. Therefore, this is aligned with the type of technologies or measures covered by the PD.		
Criteria 5: Be auditable and verifiable		**Satisfied ✓**
The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.		
Criteria 6: GHG reductions are inferior to 5,000 tCO_2e/year capacity limit		**Satisfied ✓**
These PAI reduce an average of 557 tCO_2e per year. Therefore, reductions are inferior to 5,000 tCO_2e/year. It is ensured that no individual PAI exceeds the reduction limit.		

Methodology Applicability Conditions (conditions not already addressed above)	Satisfied ✓
Condition 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.	
This new PAI is a waste management project being added to the group project ID929. This new PAI enables the avoidance of landfilling and methane emissions by recovering food waste.	
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.	
☒ Industrial building	
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)	
This PAI involves the diversion of food waste from landfill through recovery, transformation and reuse.	
Are subject to the baseline scenario determined in the PD for the specified project activity	**Satisfied ✓**
The baseline scenario represents the emissions from a landfill scenario for food waste.	
Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded an IRR of 11% with carbon credit revenues, compared with an IRR of 0.9% without carbon credit revenues, indicating that carbon credits revenues significantly increase the return on investment of the PAI for the client facility. Consequently, the investment analysis shows that the carbon credits revenues are essential to the sustainability and deployment of the projects.	

Client Facility 1603	New PAI(s): 1	Summary Description: Landfill avoidance of wood pallets through reuse
Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
The start sate of the PAI is 01/01/2018. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory		**Satisfied ✓**
The client facility is located in Saint-Hyacinthe, Quebec. Evidence of the location of the PAIs is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence)		**Satisfied ✓**
The CF signed the adhesion contract on 09/2023.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD		**Satisfied ✓**
This PAI is associated to the generic PAI II: Methane Emissions Avoidance as specified in the PD and the sectoral scope 13. As per the definition of the generic PAI II, this PAI applies and uses a measure where waste material is recovered and diverted from landfill. This PAI involves the recovery and repair for reuse of wood pallets, which enables landfill avoidance. Therefore, this is aligned with the type of measures covered by the PD.		
Criteria 5: Be auditable and verifiable		**Satisfied ✓**

The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.	
Criteria 6: GHG reductions are inferior to 5,000 tCO_2e/year capacity limit	**Satisfied ✓**
The PAI reduced 1,033 tCO_2e for this monitoring period which does not exceed the reduction limit of 5,000 tCO_2e	
Methodology Applicability Conditions (conditions not already addressed above)	**Satisfied ✓**
Condition 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.	
This new PAI is a waste management project being added to the group project ID929. This new PAI enables the avoidance of landfilling and methane emissions by recovering and reusing wood pallets.	
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.	
☒ Industrial building	
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)	
This PAI involves a measure where wood pallets are recovered, repaired and reused to avoid landfill and methane emissions.	
Are subject to the baseline scenario determined in the PD for the specified project activity	**Satisfied ✓**
The baseline scenario represents the emissions from a landfill scenario for wood waste.	
Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded an IRR of 11% with carbon credit revenues, compared with an IRR of 0.9% without carbon credit revenues, indicating that carbon credits revenues significantly increase the return on investment of the PAI for the client facility. Consequently, the investment analysis shows that the carbon credits revenues are essential to the sustainability and deployment of the projects.	

Client Facility 1603	**New PAI(s): 1**	**Summary Description:** Landfill avoidance of mixed plastics through recycling
Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
The start sate of the PAI is 01/01/2018. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory		**Satisfied ✓**
The client facility is located in Saint-Hyacinthe, Quebec. Evidence of the location of the PAIs is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence)		**Satisfied ✓**
The CF signed the adhesion contract on 09/2023.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD		**Satisfied ✓**

This PAI is associated to the generic PAI II: Methane Emissions Avoidance as specified in the PD and sectoral scope 13. As per the definition of the generic PAI II, this PAI applies and uses a measure where waste material is recycled and diverted from landfill. This PAI involves the recycling of plastics, which enables landfill avoidance. Therefore, this is aligned with the types of measures covered by the PD.	
Criteria 5: Be auditable and verifiable	**Satisfied ✓**
The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.	
Criteria 6: GHG reductions are inferior to 5,000 tCO_2e/year capacity limit	**Satisfied ✓**
The PAI reduced 7 tCO_2e for this monitoring period which does not exceed the reduction limit of 5,000 tCO_2e	
Methodology Applicability Conditions (conditions not already addressed above)	**Satisfied ✓**
Condition 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.	
This new PAI is a waste management project being added to the group project ID929. This new PAI enables the avoidance of landfilling by recycling plastics.	
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.	
☒ Industrial building	
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)	
This PAI involves a measure where plastics are recycled as an alternative disposal option to avoid landfill and methane emissions.	
Are subject to the baseline scenario determined in the PD for the specified project activity	**Satisfied ✓**
The baseline scenario represents the emissions from a landfill scenario for mixed plastics.	
Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded an IRR of 11% with carbon credit revenues, compared with an IRR of 0.9% without carbon credit revenues, indicating that carbon credits revenues significantly increase the return on investment of the PAI for the client facility. Consequently, the investment analysis shows that the carbon credits revenues are essential to the sustainability and deployment of the projects.	

Client Facility 1603	**New PAI(s): 1**	**Summary Description:** Landfill avoidance of paper and cardboard through recycling
Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
The start sate of the PAI is 01/01/2018. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory		**Satisfied ✓**
The client facility is located in Saint-Hyacinthe, Quebec. Evidence of the location of the PAIs is provided for this monitoring period.		

Criteria 3: Be a registered member of the grouped project (ownership evidence)	**Satisfied ✓**
The CF signed the adhesion contract on 09/2023.	
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD	**Satisfied ✓**
This PAI is associated to the generic PAI II: Methane Emissions Avoidance as specified in the PD and the sectoral scope 13. As per the definition of the generic PAI II, this PAI applies and uses a measure where waste material is recycled and diverted from landfill. This PAI involves the recycling of paper and cardboard, which enables landfill avoidance. Therefore, this is aligned with the types of measures covered by the PD.	
Criteria 5: Be auditable and verifiable	**Satisfied ✓**
The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.	
Criteria 6: GHG reductions are inferior to 5,000 tCO_2e/year capacity limit	**Satisfied ✓**
The PAI reduced 1,281 tCO_2e for this monitoring period which does not exceed the reduction limit of 5,000 tCO_2e	
Methodology Applicability Conditions (conditions not already addressed above)	**Satisfied ✓**
Condition 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.	
This new PAI is a waste management project being added to the group project ID929. This new PAI enables the avoidance of landfilling of paper and cardboard from packaging via recycling.	
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.	
☒ Industrial building	
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)	
This PAI involves a measure where paper and cardboard are recycled as an alternative disposal option to avoid landfill.	
Are subject to the baseline scenario determined in the PD for the specified project activity	**Satisfied ✓**
The baseline scenario represents the emissions from a landfill scenario for paper and cardboard.	
Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded an IRR of 11% with carbon credit revenues, compared with an IRR of 0.9% without carbon credit revenues, indicating that carbon credits revenues significantly increase the return on investment of the PAI for the client facility. Consequently, the investment analysis shows that the carbon credits revenues are essential to the sustainability and deployment of the projects.	

Client Facility 1604	**New PAI(s):** 1534 (consolidated)	**Summary Description:** Landfill avoidance of organic waste waste through composting
Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
The start sate of the PAI is 01/01/2019. The PAI is eligible for crediting from the later of their respective start date indicated above.		

Criteria 2: Must be located inside the Quebec territory	**Satisfied ✓**
The client facility is located in Varennes, Quebec. Individual PAIs correspond to the origin point of the organic waste. Every origin points are located inside the Quebec territory since the client facility only serves the southern crown of Montreal, which is made up of three MRC: MRC de la Vallée-du-Richelieu, MRC de Marguerite d'Youville, and the MRC de Rouville. Evidence of the location of the PAIs is provided for this monitoring period.	
Criteria 3: Be a registered member of the grouped project (ownership evidence)	**Satisfied ✓**
The CF signed the adhesion contract on 01/2024.	
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD	**Satisfied ✓**
This PAI is associated to the generic PAI II: Methane Emissions Avoidance as specified in the PD and the sectoral scope 13. As per the definition of the generic PAI II, this PAI applies and uses a measure where waste material is diverted from landfill. This PAI involves the composting of organic waste, which enables landfill avoidance. Therefore, this is aligned with the type of technologies or measures covered by the PD.	
Criteria 5: Be auditable and verifiable	**Satisfied ✓**
The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.	
Criteria 6: GHG reductions are inferior to 5,000 tCO_2e/year capacity limit	**Satisfied ✓**
The PAIs reduced an average of 17 tCO_2e for this monitoring period which does not exceed the reduction limit of 5,000 tCO_2e	
Methodology Applicability Conditions (conditions not already addressed above)	**Satisfied ✓**
Condition 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.	
This new PAI is a waste management project being added to the group project ID929. This new PAI enables the avoidance of landfilling of organic waste by composting.	
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.	
☒ Industrial building	
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)	
This PAI involves a measure of composting organic waste as an alternative disposal option to avoid landfill.	
Are subject to the baseline scenario determined in the PD for the specified project activity	**Satisfied ✓**
The baseline scenario represents the emissions from a landfill scenario for food waste.	
Not be or have been enrolled in another VCS project	**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.	
Additionality: Investment Analysis	**Satisfied ✓**
The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT. The PAIs yielded a negative IRR, indicating that with and without carbon credits, this is a loss-making activity. However, examining specifically the Profit After Tax (PAT), with and without carbon credits, PAT shows significant improvements with carbon credits. Consequently, the investment analysis shows that, while the client facility will still face losses, the carbon credit revenues reduce the deficit by nearly half, making the revenues crucial for the PAI and the company's viability and sustainability. It is expected that the client facility is likely to offset its losses once it reaches full capacity.	

Client Facility 1604	**New PAI(s):** 14 (consolidated)	**Summary Description:** Avoidance of the use of fertilizers through biomethanization digestate recycled and applied to agricultural fields
Criteria 1: Be implemented after January 1st 2015		**Satisfied ✓**
The start sate of the PAI is 01/01/2019. The PAI is eligible for crediting from the later of their respective start date indicated above.		
Criteria 2: Must be located inside the Quebec territory		**Satisfied ✓**
The client facility is located in Varennes, Quebec. Individual PAIs correspond to the destination point of the organic waste. Every destination points are located inside the Quebec territory since the client facility only serves the southern crown of Montreal, which is made up of three MRC: MRC de la Vallée-du-Richelieu, MRC de Marguerite d'Youville, and the MRC de Rouville. Evidence of the location of the PAIs is provided for this monitoring period.		
Criteria 3: Be a registered member of the grouped project (ownership evidence)		**Satisfied ✓**
The CF signed the adhesion contract on 01/2024.		
Criteria 4: Use of a technology or measure similar to the Generic PAIs specified in the PD		**Satisfied ✓**
This PAI is associated to the generic PAI XV: Land Application of Biosolids as specified in the PD and the sectoral scope 13. As per the definition of the generic PAI XV, this covers waste management approaches that avoid landfilling and methane emissions through the recovery and reuse of residual organic materials by spreading them on land to replace fertilizers. This PAI involves digestate from the biomethanization process being recycled and applied to agricultural fields. Therefore, this is aligned with the type of technologies or measures covered by the PD.		
Criteria 5: Be auditable and verifiable		**Satisfied ✓**
The PAI was successfully audited by the PP, and the CF was able to provide sufficient and relevant evidence documentation to verify the accuracy and integrity of the data received.		
Criteria 6: GHG reductions are inferior to 5,000 tCO_2e/year capacity limit		**Satisfied ✓**
These PAIs reduced an average of 643 tCO_2e for this monitoring period which does not exceed the reduction limit of 5,000 tCO_2e		
Methodology Applicability Conditions (conditions not already addressed above)		**Satisfied ✓**
Condition 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.		
This new PAI is a waste management project being added to the group project ID929. This new PAI enables the avoidance of the use of fertilizers through biomethanization digestate recycled and applied to agricultural fields.		
Condition 2: Projects can be located in residential, commercial, institutional, or industrial buildings/facilities.		
☒ Industrial building		
Condition 3: Use and Application of Technology and Measures of the PAI (as per the methodology)		
This PAI involves a measure where digestate from the biomethanization process is recycled and applied to agricultural fields as an alternative disposal option.		
Are subject to the baseline scenario determined in the PD for the specified project activity		**Satisfied ✓**
The baseline scenario represents the emissions from a landfill scenario for the digestate resulting from the biomethanization process.		
Not be or have been enrolled in another VCS project		**Satisfied ✓**
The CF has confirmed not being enrolled in another VCS project.		
Additionality: Investment Analysis		**Satisfied ✓**

The project proponent conducted an investment analysis using the internal rate of return (IRR) as the financial indicator for the PAIs on a consolidated basis. The analysis was conducted for a 8-year period, with an average benchmark IRR of 16%. The IRR calculations included the gross margin, EBITDA, and PAT.

The PAIs yielded a negative IRR, indicating that with and without carbon credits, this is a loss-making activity. However, examining specifically the Profit After Tax (PAT), with and without carbon credits, PAT shows significant improvements with carbon credits. Consequently, the investment analysis shows that, while the client facility will still face losses, the carbon credit revenues reduce the deficit by nearly half, making the revenues crucial for the PAI and the company's viability and sustainability. It is expected that the client facility is likely to offset its losses once it reaches full capacity.

Due to the high volume of information on each new Client Facility and new PAIs, the project proponent has provided supplemental spreadsheets which demonstrates and justifies how each new project activity instance fully meets the eligibility criteria set out in the project description and the additionality demonstration.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

All data and parameters available at validation and used to quantify the eligible GHG emissions reductions for each PAI in this monitoring report is supported by evidence made available to the VVB. For each Client Facility included in this monitoring report, a calculation spreadsheet was used, and the reductions quantifications (baseline and project emission reductions) were agglomerated. For further details on each Client Facility quantification sheets, see Annex B.

Data / Parameter	EF Thermal Energy CO_2e
Data unit	Kg CO_2e per GJ
Description	CO_2e emissions factor for local generation of thermal energy
Source of data	For the Territory of interest, the project proponent must identify the most appropriate CO_2e emission factor for the source of thermal energy used under the project scenario. Regional data (for example: US Department of Energy's Form EIA-1605 Appendix N. Emission factors

	for Steam and Chilled/Hot Water) shall be used. In its absence, IPCC defaults must be used from the most recent version of IPCC Guidelines for National Greenhouse Gas Inventories providing they are deemed to reasonably represent local circumstances. The project proponent must choose the values in a conservative manner and justify the choice.
Value applied	All emission factors (EF) used for the calculation of this consider the CH_4, N_2O and CO_2 emissions. All values applied and used for the calculations are described for each generic PAI in the Appendix 4.
Justification of choice of data or description of measurement methods and procedures applied	Thermal Energy generation characteristics are likely to remain relatively stable over a year's time.
Purpose of data	The EF Thermal Energy are used for: • The Calculation of baseline emissions • The Calculation of project emissions
Comments	N/A

Data / Parameter	EF Fuel i N_2O
Data unit	Kg N_2O per L, m^3, or other
Description	N_2O emissions factor for combustion of each type of fuel (EF Fuel i N_2O)
Source of data	For both mobile and stationary fuel combustion for the Territory of interest, the project proponent must identify the most appropriate emission factors for the source of thermal energy used under the project condition. Regional data (for example: EPA's AP 42, Compilation of Air Pollutant Emission Factors) shall be used. In its absence, IPCC defaults must be used from the most recent version of IPCC Guidelines for National Greenhouse Gas Inventories providing they are deemed to reasonably represent local circumstances. The project proponent must choose the values in a conservative manner and justify the choice.
Value applied	All emission factors (EF) used for the calculation of this consider the CH_4, N_2O and CO_2 emissions. All values applied and used for the calculations are described for each generic PAI in the Appendix 4.
Justification of choice of data or description of measurement methods and procedures applied	This is one of the most comprehensive fuel emission factor databases available.
Purpose of data	The EF Fuel are used for:

	• The Calculation of baseline emissions • The Calculation of project emissions
Comments	N/A

Data / Parameter	EF Fuel $_{i\,CH4}$
Data unit	Kg CH_4 per L, m^3, or other
Description	CH_4 emissions factor for combustion of each type of fuel (EF Fuel $_{i\,CH4}$)
Source of data	For both mobile and stationary fuel combustion for the Territory of interest, the project proponent must identify the most appropriate emission factors for the type of fuel used under the project scenario. Regional data (for example: EPA's AP 42, Compilation of Air Pollutant Emission Factors) shall be used. In its absence, IPCC defaults can be used from the most recent version of IPCC Guidelines for National Greenhouse Gas Inventories providing they are deemed to reasonably represent local circumstances. The project proponent must choose the values in a conservative manner and justify the choice.
Value applied	All emission factors (EF) used for the calculation of this consider the CH_4, N_2O and CO_2 emissions. All values applied and used for the calculations are described for each generic PAI in the Appendix 4.
Justification of choice of data or description of measurement methods and procedures applied	This is one of the most comprehensive fuel emission factor databases available.
Purpose of data	The EF Fuel are used for: • The Calculation of baseline emissions • The Calculation of project emissions
Comments	N/A

Data / Parameter	EF Fuel $_{i\,CO2}$
Data unit	Kg CO_2 per L, m^3, or other
Description	CO_2 Emissions Factor for combustion of each type of fuel (EF Fuel $_{i\,CO2}$)
Source of data	For both mobile and stationary fuel combustion for the Territory of interest, the project proponent must identify the most appropriate emission factors for the type of fuel used under the project scenario. Regional data (for example: EPA's AP 42, Compilation of Air Pollutant Emission Factors) shall be used. In its absence, IPCC defaults can be used from the most recent version of IPCC Guidelines for National

	Greenhouse Gas Inventories providing they are deemed to reasonably represent local circumstances. The project proponent must choose the values in a conservative manner and justify the choice.
Value applied	All emission factors (EF) used for the calculation of this consider the CH_4, N_2O and CO_2 emissions. All values applied and used for the calculations are described for each generic PAI in the Appendix 4.
Justification of choice of data or description of measurement methods and procedures applied	This is one of the most comprehensive fuel emission factor databases available.
Purpose of data	The EF Fuel are used for: • The Calculation of baseline emissions • The Calculation of project emissions
Comments	N/A

Data / Parameter	OX
Data unit	-
Description	Oxidation factor (reflecting the amount of soil or other material covering the waste)
Source of data	The approved PD requires this factor to be determined using the CDM's "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site (Version 05.1.0)" (CDM, 2011). The project during this monitoring period has instead used default emission factors from the U.S. Environmental Protection Agency Waste Reduction Model (EPA WARM) version 15, as per the PD deviation.
Value applied	All emission factors (EF) used for the calculation of this consider the CH_4, N_2O and CO_2 emissions. All values applied and used for the calculations are described for each generic PAI in the Appendix 4.
Justification of choice of data or description of measurement methods and procedures applied	The most used tool for calculation landfill gas emission reductions.
Purpose of data	The OX factor is used for: • The Calculation of baseline emissions • The Calculation of project emissions
Comments	N/A

Data / Parameter	DOC_1
Data unit	-
Description	Fraction of degradable organic carbon (DOC) that can decompose
Source of data	The approved PD requires this factor to be determined using the CDM's "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site (Version 05.1.0)" (CDM, 2011). The project during this monitoring period has instead used default emission factors from the U.S. Environmental Protection Agency Waste Reduction Model (EPA WARM) version 15, as per the PD deviation.
Value applied	All emission factors (EF) used for the calculation of this consider the CH_4, N_2O and CO_2 emissions. All values applied and used for the calculations are described for each generic PAI in the Appendix 4.
Justification of choice of data or description of measurement methods and procedures applied	The most used tool for calculation landfill gas emission reductions.
Purpose of data	The DOC factor is used for: • The Calculation of baseline emissions • The Calculation of project emissions
Comments	N/A

Data / Parameter	DOCj
Data unit	-
Description	Fraction of degradable organic carbon (by weight)
Source of data	The approved PD requires this factor to be determined using the CDM's "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site (Version 05.1.0)" (CDM, 2011). The project during this monitoring period has instead used default emission factors from the U.S. Environmental Protection Agency Waste Reduction Model (EPA WARM) version 15, as per the PD deviation.
Value applied	-
Justification of choice of data or description of measurement methods and procedures applied	The most used tool for calculation landfill gas emission reductions.
Purpose of data	The DOC factor is used for: • The Calculation of baseline emissions

	• The Calculation of project emissions
Comments	N/A

Data / Parameter	MCF
Data unit	-
Description	Methane correction factor
Source of data	The approved PD requires this factor to be determined using the CDM's "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site (Version 05.1.0)" (CDM, 2011). The project during this monitoring period has instead used default emission factors from the U.S. Environmental Protection Agency Waste Reduction Model (EPA WARM) version 15, as per the PD deviation.
Value applied	All emission factors (EF) used for the calculation of this consider the CH_4, N_2O and CO_2 emissions. All values applied and used for the calculations are described for each generic PAI in the Appendix 4.
Justification of choice of data or description of measurement methods and procedures applied	The most used tool for calculation landfill gas emission reductions.
Purpose of data	The MCF factor is used for: • The Calculation of baseline emissions • The Calculation of project emissions
Comments	N/A

Data / Parameter	k_j
Data unit	-
Description	Decay rate for the waste type j
Source of data	The approved PD requires the following parameters to be used from the IPCC 2006 Guidelines for National Greenhouse Gas Inventories (adapted from Volume 5, Table 3.3). The project during this monitoring period has instead used default emission factors from the U.S. Environmental Protection Agency Waste Reduction Model (EPA WARM) version 15, as per the PD deviation.
Value applied	All emission factors (EF) used for the calculation of this consider the CH_4, N_2O and CO_2 emissions. All values applied and used for the calculations are described for each generic PAI in the Appendix 4.

Justification of choice of data or description of measurement methods and procedures applied	Deemed to reasonably represent local circumstances.
Purpose of data	The factor is used for: • The Calculation of baseline emissions • The Calculation of project emissions
Comments	*N/A*

4.2 Data and Parameters Monitored

All monitored data and parameters used to quantify the eligible GHG emissions reductions for each PAI in this monitoring report are supported by evidence available to the VVB. For each Client Facility included in this monitoring report, a calculation spreadsheet was used. For further details on each Client Facility quantification sheets, see Annex B. Each PAI associated to a generic PAI is monitored as described in the tables below.

Data / Parameter	Volume or Quantity of $Fuel_i$
Data unit	L, m3, kg or MT
Description	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.
Source of data	The volume of fuel is determined by supplier meters (which are regularly calibrated) and reported on bill of lading and invoices, consolidated monthly or at each tanking.
Description of measurement methods and procedures to be applied	The Bill of Lading and the Invoice of each Fuel delivery is consolidated. End of period residual Fuel volume evaluation could be estimated.
Frequency of monitoring/recording	At each delivery, or a monthly basis, the volume or quantity of Fuel is measured and recorded. Evidence will be recorded on Bill of Lading and Invoices.
Value monitored	Available in individual quantification sheet of each Client Facility
Monitoring equipment	The monitoring equipment includes: Flow meters installed on tanker. By law, flow meters are to be calibrated regularly and in compliance with Measurement Canada requirements.

QA/QC procedures to be applied	The SPSC system applies the following QC/QA procedures: • Data comparison with past performance • Data comparison with similar Project Unit • Data comparison with standard benchmark (Ashrae 90.1, Model National Energy Code for Building MNECB) • Data comparison with sector association. • Project Unit Investigation for root cause analysis of data profile if outside range Project Unit Physical audit to validate the measurement devices conditions and collect related evidence.
Purpose of the data	• Calculation of baseline emissions • Calculation of project emissions
Calculation method	In case where fuels are tanked, end of period adjustment would be assessed with Client Facility internal gauge: the incertitude linked to this assessment is reduced by the number of times the tank is filled during the period. In case Project Unit is supplied by Client Facility tank, the portion is justified by evidence.
Comments	N/A

Data / Parameter	Electricity
Data unit	kWh
Description	The amount of electricity consumed from the grid.
Source of data	The amount of electricity consumed from the grid is determined by the supplier calibrated kWh meter.
Description of measurement methods and procedures to be applied	The amount of electricity consumed from the grid is determined by the Hydro-Québec calibrated kWh meter.
Frequency of monitoring/recording	Monthly or bimonthly, with consumption statement. Evidence will be recorded on Invoices.
Value monitored	Available of individual quantification sheet of each client facility
Monitoring equipment	The monitoring equipment includes: Electric meters installed at the entry of Client Facility/Project Unit electricity supply. By law, such electric meters are sealed and are to be calibrated regularly and in compliance with Measurement Canada requirements.

QA/QC procedures to be applied	The SPSC system applies the following QC/QA procedures: • Data comparison with past performance • Data comparison with similar Project Unit • Data comparison with standard benchmark (Ashrae 90.1, Model National Energy Code for Building MNECB…) • Data comparison with sector association. • Project Unit Investigation for root cause analysis of data profile if outside range Project Unit Physical audit to validate the measurement devices conditions and collect related evidence.
Purpose of the data	• Calculation of baseline emissions • Calculation of project emissions
Calculation method	If internal meters are required for the Isolation Parameter Measurement option, electrical consumption is determined by meters which are calibrated as per the manufacturer's schedule. Alternatively, the energy consumed by the related electrical devices will be equal to nominal power of the devices over the time of operations.
Comments	N/A

Data / Parameter	Quantity of waste
Data unit	Kg or MT
Description	Weight of waste, which is diverted form landfill for being recycled, re-use.
Source of data	The weight is determined by scale at recycling premises and/or at Project Unit. The weight is reported on the Bill of Lading for each shipment.
Description of measurement methods and procedures to be applied	The weight of waste is reported on the Bill of Lading and the Invoice of each shipment.
Frequency of monitoring/recording	At each shipment or a monthly basis. Evidence will be recorded on Invoices.
Value monitored	Available of individual quantification sheet of each client facility
Monitoring equipment	The monitoring equipment includes: • Weighting balance.
QA/QC procedures to be applied	The SPSC system applies the following QC/QA procedures: • Data comparison with past performance • Data comparison with similar Project Unit • Data comparison with Data comparison with sector association.

	• Project Unit Investigation for root cause analysis of data profile if outside range Project Unit Physical audit to validate the measurement devices conditions and collect related evidence.
Purpose of the data	• Calculation of baseline emissions • Calculation of project emissions
Calculation method	Waste weight could be expressed in other than SI units, such as ST, Lbs: conversion is made to have waste weight expressed in Kg or MT.
Comments	N/A

4.3 Monitoring Plan

The monitoring plan applied to all Project Units is the same as described in the six previous monitoring reports which is in accordance with the VM0018 methodological requirements. All six previous verification reports were reviewed, controlled, and accepted by the VCS program. The monitoring plan is described in more details below, as well as in Appendix 4.

1. Organizational Structure and responsibilities

The project proponent adheres to the guidelines set out in this monitoring plan to ensure the monitoring is credible, transparent, and conservative.

The responsibilities of the monitoring team are as follow:

- GHG Quantification Manager: Responsible for supervising the monitoring process, data management and filling and compiling the monitoring report.
- Auditing and Quantification team: Responsible for collecting data, cross-checking, conducting audits, and filling individual data sheets and perform calculations for each Client Facility and PAIs.

2. Methods Used

- **Data Collection**

At the time of registration of the project unit (PAI), an audit of the site of the Project Unit takes place, and physical evidence necessary to determine the baseline scenario is collected. The data and documentation collection and storage are centrally controlled and administered. Additional information on the procedure is detailed in the table and figure provided in Appendix 4. The data collected shall be of sufficient quality to fulfill the quantification requirements and be substantiated by Client Facility records for the purpose of verification.

Further information on the data monitored for each individual project Unit is available upon request in individual calculation spreadsheets.

- **Data Management System**

To keep safely all documents and records collected during the monitoring, the record keeping include the following practices:

- Electronic recording of values of logged primary parameters for each measurement interval.
- Offsite electronic back-up of all logged data.
- Storage of all documents and records will be kept in a secure and retrievable manner for at least two years following the end of the project crediting period.

- **Monitoring Report**

After the data and physical evidence is collected and sorted, the monitoring report is prepared by the GHG Quantification Manager. It is also ensured that the format and content of the monitoring report are consistent with the monitoring template.

3. Quality Assurance and Quality Control (QA/QC)

The QA/QC is applied to add confidence that all measurements and calculations have been made correctly. The procedures include, but are not limited to:

- At each entry in the Sustainable Community Service Promoter (SCSP) system, controls are run to compare entry to historical data, sectoral and external benchmarks (manual assessment, comparing redundant metered data, and detection of outstanding data/records);
- Investigation may be necessary to get physical evidence of the data entered into the SCSP system;
- Impact of a potential recurring issue will be looked at for all the concerned Project Units;
- Performing recalculations to ensure no mathematical errors have been made.

4. Sampling Approach

The sampling approach includes PAIs located in the Quebec territory and are part of the grouped project, and for which data was collected and stored in the project proponent's centralized system. The sample is partly selective, based on the range of activities (sectoral scope 3 and sectoral scope 13) included in the grouped project. PAIs submitted to the validation/verification body (VVB) are selected at random.

In accordance with the VM0018 methodology (version 1.0) section 8.3, the size of the sample is the square root of the number of PAIs, for each sectoral scope, participating to the group project,

rounded to the upper whole number. Evidence of the audit are kept, and discrepancies will be analyzed as well as potential impact on related Project Units.

For this monitoring period, the minimum sampling size for the VVB audit was calculated as indicated in the tables below.

	PAIs for verification		
Total Client Facilities	Total number of PAIs sectoral scope 3	Total number of PAIs sectoral scope 13	Total PAIs
58	341	2,089	2,430

		Scope 3 PAIs	Scope 13 PAIs	Total PAIs
Total PAI to be audited (sample)	$\sqrt{n}$	18	46	64

The project proponent has provided a more detailed procedure for determining the selected sample to be taken by the VVB in Annex B, worksheet “Sample for Verification”.

Sample defects, if any, shall be treated in accordance with the applied methodology:

- The sample size shall be enlarged to a maximum of 160% of the initial size if the reported values for one or more GHG reduction activities is beyond the acceptable range (defect) and the number of defects exceeds the acceptable quality level.
- The sample size shall be reduced to a maximum of 60% of the initial size if all client facilities reported values are within the acceptable range (no defects) for five consecutive samplings.

5. Non-Conformance Procedure

The project takes an adaptive approach to monitoring plan procedures, altering or adding additional requirements when necessary. The project proponent and the Client Facility documents issues that arise in monitoring and reporting and will adapt procedures to rectify any gaps or inconsistencies in the monitoring plan. This allows for a dynamic and accurate monitoring plan that constantly builds upon and improves previous procedures.

Non-conformances are recorded as separate events, and associated data is excluded from eligibility for crediting. In the instance that there are repeated non-conformances, the project proponent applies an adaptive approach to rectify the situation. Individuals involved in the non-conformance will be contacted, and the reason for the non-conformance will be identified. The procedure will then be adapted to ensure the avoidance of similar non-conformances in the future.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

The baseline emissions (**BE_y**, in tCO2e) of all PAI are the summation for each PAI of the product of the baseline emissions 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 before project and the waste stream (**WS**) before its diversion from landfill management.

BE_y = **FF_{BL}** * **EF_3** (sectoral scope 3)

BE_y = **WS_{BL}** * **EF_{13}** (sectoral scope 13)

$FF_{BL,y}$ = Volume of fossil fuel used before the project

$WS_{BL,y}$ = Volume of waste stream before diversion from landfill

EF_3 = CO_2e emission factor of the fossil fuel

EF_{13} = CO_2e emission factor of the waste stream that considers the different management scenario, at landfill, regarding the flaring or no flaring of methane (biogas) and/or its use or not for energy recovery.

Table 2 below shows the calculation for baseline emissions for each Client Facility and their PAIs. In addition, for this monitoring report, a calculation spreadsheet for the detailed quantification of the eligible PAIs is available as Annex B on the Verra registry. Relevant information to complement these calculations is available, when applicable, in the Client Facilities individual calculation spreadsheets.

Client Facilities that did not provide evidence for their PAIs for this monitoring period are excluded from this report.

Table 2: Quantification of baseline emissions of 2022 for each Client Facility

Client Facilities	Nbr of PAIs	$FF_{BL,y}$ or $WS_{BL,y}$	×	EF_3 or EF_{13}	=	BE_y in tCO_2e	BE_y in tCO_2e (rounded down)
Client Facility 0101	1	121,556.40	x	0.002735	=	332.42	332
Client Facility 0102	1	232,692.00	x	0.002735	=	636.35	636
Client Facility 0103	1	141,309.56	x	0.002735	=	386.44	386
Client Facility 0105	1	176,335.00	x	0.001544	=	272.26	375
	1	150.94	x	0.683240	=	103.13	

Client Facility 0106	1	26,709.79	x	0.002735	=	73.04	203
	1	9,258.60	x	0.002790	=	25.83	
	1	26,709.79	x	0.002735	=	73.04	
	1	4,499.14	x	0.002735	=	12.30	
	1	0.94	x	3.658640	=	3.44	
	1	9.02	x	1.785240	=	16.10	
Client Facility 0108	1	27,440.60	x	0.002735	=	75.04	2,359
	1	9,941.90	x	0.002735	=	27.19	
	1	4,112.74	x	0.002735	=	11.25	
	1	113,442.08	x	0.002735	=	310.23	
	1	460.90	x	3.934140	=	1,813.25	
	1	179.87	x	0.683240	=	122.89	
Client Facility 0112	1	262,106.71	x	0.002735	=	716.79	716
Client Facility 0113	14	525,926.71	x	0.002735	=	1,438.27	3,285
		21,567.58	x	0.001544	=	33.30	
	3	66,799.00	x	0.002735	=	182.68	
	14	202,033.15	x	0.002735	=	552.51	
		21,474.00	x	0.002790	=	59.91	
	12	39,276.09	x	0.002735	=	107.41	
		111,713.26	x	0.002790	=	311.66	
		2,779.6	x	0.001544	=	4.29	
		4,918.52	x	0.002361	=	11.61	
	4	83,780.11	x	0.002735	=	229.12	
	5	129,833.72	x	0.002735	=	355.06	
Client Facility 0114	1	13,437.14	x	0.002735	=	36.75	1,244
	3	411.05	x	1.785240	=	733.82	
	16	694.74	x	0.683240	=	474.67	
Client Facility 0115	1	14,511.33	x	0.001544	=	22.41	22
Client Facility 0118	8	179,084.16	x	0.002735	=	489.75	489
Client Facility 0119	1	14,064.00	x	0.002735	=	38.46	38
Client Facility 0120	1	359.22	x	0.683240	=	245.43	245
Client Facility 0121	1	208.79	x	3.934140	=	821.41	821
Client Facility 0201	1	3,984.20	x	0.001889	=	7.53	7
Client Facility 0202	1	63,529.90	x	0.001544	=	98.08	297
		60,120.00	x	0.000036	=	2.16	
		45,606.64	x	0.001544	=	70.41	
	1	82,454.21	x	0.001544	=	127.30	
Client Facility 0204	1	20,549.00	x	0.002735	=	56.20	56
Client Facility 0206	7	3,781,861.44	x	0.001764	=	6,671.14	8,131
		79,386.75	x	0.001544	=	122.57	

	1	30,420.00	x	0.044000	=	1,338.48	
Client Facility 0207	12	9592.63	x	2.084940	=	20000.05	25,158
	36	7,549.31	x	0.683240	=	5157.99	
Client Facility 0211	1	1,012,674.00	x	0.003146	=	3,186.24	87,462
	1	4.00	x	3.658640	=	14.63	
	81	43,944.00	x	1.917480	=	84,261.74	
Client Facility 0213	1	5,225.89	x	0.001889	=	9.87	223
	1	58.50	x	3.658640	=	214.03	
Client Facility 0402	1	292,771.54	x	0.001544	=	452.03	452
Client Facility 0404	1	2,520.34	x	0.001889	=	4.76	233
		297.2	x	0.002735	=	0.81	
		2,959,917.88	x	0.000002	=	6.04	
	1	48,150.81	x	0.001889	=	90.96	
		5,677.96	x	0.002735	=	15.53	
		56,548,988.03	x	0.000002	=	115.36	
Client Facility 0405	7	36,185.48	x	1.785240	=	64,599.77	64,599
Client Facility 0406	19	1,363.00	x	0.683240	=	931.26	931
Client Facility 0408	24	18,819.49	x	1.785240	=	33,597.30	33,597
Client Facility 0701	1	294.35	x	3.934140	=	1,158.01	1,261
	1	151.84	x	0.683240	=	103.74	
Client Facility 0702	1	29,455.00	x	0.002735	=	80.55	80
Client Facility 0703	1	445.17	x	3.934140	=	1,751.36	2,014
	1	385.60	x	0.683240	=	263.46	
Client Facility 0704	1	5,928.13	x	0.002735	=	16.21	16
Client Facility 0706	1	8,504.60	x	0.001544	=	13.13	29
	1	1.52	x	3.658640	=	5.56	
	1	5.68	x	1.046900	=	5.95	
	1	1.46	x	3.658640	=	5.34	
Client Facility 0707	33	1,420.75	x	2.084940	=	2,962.18	2,962
Client Facility 0708	10	2,094,849.66	x	0.002735	=	5,728.86	30,927
	22	14,115.48	x	1.785240	=	25,199.52	
Client Facility 0801	1	46,969.40	x	0.002735	=	128.45	128
Client Facility 0805	1	138,094.48	x	0.002735	=	377.65	377
		0.00	x	0.001544	=	0.00	
Client Facility 0807	1	591.55	x	1.785240	=	1,056.06	6,913
	1	1,254.66	x	0.683240	=	857.23	
	1	1,270.93	x	3.934140	=	5,000.00	
Client Facility 0809	1	5,096.00	x	0.002735	=	13.94	13
Client Facility 0810	18	367,614.67	x	0.002422	=	890.50	890
Client Facility 0901	1	966,846.92	x	0.001764	=	1,705.50	178,839

		24,847.44	x	0.001544	=	38.36	
	1	966,846.92	x	0.001764	=	1,705.50	
		24,847.44	x	0.001544	=	38.36	
	1	966,846.92	x	0.001764	=	1.705.50	
		24,847.44	x	0.001544	=	38.36	
	1	2,834,492.18	x	0.001764	=	4,999.99	
	27	19,725.00	x	1.917480	=	37,822.29	
	26	68,207.50	x	1.917480	=	130,786.52	
Client Facility 1201	9	1,456,332.56	x	0.001889	=	2,751.48	12,830
	1	17,495.00	x	0.001544	=	27.01	
	1	3,092,312.08	x	0.000002	=	6.31	
	4	5,627.52	x	1.785240	=	10,046.47	
Client Facility 1202	1	6,301.09	x	0.002735	=	17.23	771
		162,978.70	x	0.001889	=	307.92	
	1	0.00	x	0.002735	=	0.00	
		18,108.74	x	0.001889	=	34.21	
	1	217,959.96	x	0.001889	=	411.80	
Client Facility 1203	1	43,072.50	x	0.001544	=	66.50	89
		271,133.33	x	0.000002	=	0.55	
	1	5,101.00	x	0.002735	=	13.95	
	1	3,095.00	x	0.002735	=	8.46	
Client Facility 1204	1	4,090.99	x	2.486830	=	10,173.60	15,138
	1	40,524.16	x	0.001889	=	76.56	
	1	366,677.94	x	0.001889	=	692.77	
	1	98,048.45	x	0.002735	=	268.14	
	1	1,329.00	x	2.486830	=	3,305.00	
		403,449.44	x	0.001544	=	622.92	
Client Facility 1205	1	157,921.90	x	0.002735	=	431.87	963
	1	89,469.42	x	0.002361	=	211.26	
		114,793.37	x	0.002790	=	320.25	
Client Facility 1501	10	138,325.00	x	0.002735	=	378.28	8,969
	10	1,311,910.11	x	0.002422	=	3,177.92	
		152,148.00	x	0.002735	=	416.08	
		143,185.00	x	0.001544	=	221.08	
	1	2,675.75	x	1.785240	=	4,776.86	
Client Facility 1504	1	16,903.41	x	0.003518	=	59.47	1,288
	1	648.26	x	1.895526	=	1,228.79	
Client Facility 1505	5	8,214,839.98	x	0.001544	=	12,683.58	16,991
		383,895.00	x	0.001889	=	725.30	
	2	2,320,474.12	x	0.001544	=	3,582.77	

Client Facility 1506	12	582.38	x	2.084940	=	1,214.23	17,566
	12	2,092.05	x	1.785240	=	3,734.81	
	12	3,889.05	x	0.683240	=	2,657.15	
	12	2,531.87	x	3.934140	=	9,960.73	
Client Facility 1507	1	269.98	x	2.084940	=	562.89	6,212
	1	1,897.94	x	0.683240	=	1,296.75	
	1	1,106.47	x	3.934140	=	4,353.01	
Client Facility 1508	25	4,881.21	x	1.785240	=	8,714.13	20,019
	25	321.45	x	0.683240	=	219.63	
	25	1,716.58	x	3.934140	=	6,753.27	
	25	6,341.88	x	0.683240	=	4,333.03	
Client Facility 1509	1	358,733.60	x	0.001544	=	553.88	10,552
	1	2,607.50	x	1.917480	=	4,999.83	
	1	2,607.50	x	1.917480	=	4,999.83	
Client Facility 1510	1	29,131.58	x	0.002790	=	81.27	6,677
	3	3,633.06	x	1.785240	=	6,485.88	
	1	30.20	x	3.658640	=	110.49	
Client Facility 1511	1	12,855.32	x	0.001544	=	19.85	24
		1,442.86	x	0.002735	=	3.95	
		114,626.96	x	0.000002	=	0.23	
Client Facility 1601	76	10,558,103.52	x	0.001544	=	16,301.54	30,912
	5	7,620.26	x	1.917480	=	14,611.70	
Client Facility 1602	35	1,453,910.86	x	0.045100	=	65,571.38	65,571
Client Facility 1603	43	35,057.26	x	0.683240	=	23,952.52	50,227
	43	35,057.26	x	0.683240	=	23,952.52	
	1	539.16	x	1.917480	=	1,033.82	
	1	7.39	x	1.046900	=	7.74	
	1	325.67	x	3.934140	=	1,281.23	
Client Facility 1604	1534	38,799	x	0.683240	=	26509.03	35,519
	14	10,791.00	x	0.835000	=	9,010.48	
Client Facility 1701	1	13,694.00	x	0.001889	=	25.87	4,925
		479,000.00	x	0.000002	=	0.98	
	1	1,900.58	x	1.785240	=	3,392.99	
	1	1,439.05	x	1.046900	=	1,506.54	
Total:	**2430**						**761,989**

BEy values have been rounded down for conservativeness.

The baseline emissions BEy = 761,989 tCO_2e

5.2 Project Emissions

The Project Emissions (**PE_y**, in tCO_2e) of all PAI are the summation for each PAI of 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 and the (**WS**) management by the reuse, the recycling or the composting of the waste stream (**WS**).

PE_y = **FF_P** * **EF_3** (sectoral scope 3)

PEy = **WS_P** * **EF_{13}** (sectoral scope 13)

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

$WS_{P,y}$ = Volume of waste stream diverted from landfill

EF_3 = CO_2e emission factor of the fossil fuel

EF_{13} = CO_2e emission factor of the waste stream that considers the different management scenario, at landfill, regarding the flaring or no flaring of methane (biogas) and/or its use or not for energy recovery.

Table 3 below shows the calculation for project emissions for each Client Facility and their PAIs. In addition, for this monitoring report, a calculation spreadsheet for the detailed quantification of the eligible PAIs is available as Annex B on the Verra registry. Relevant information to complement these calculations is available when applicable in the Client Facilities individual calculation spreadsheets.

Client Facilities that did not provide evidence for their PAIs for this monitoring period are excluded from this report.

Table 3: Quantification of project emissions of 2022 for each Client Facility

Client Facilities	Nbr of PAIs	$FF_{P,y}$ or $WS_{P,y}$	×	EF_3 or EF_{13}	=	PE_y in tCO_2e	PE_y in tCO_2e (rounded down)
Client Facility 0101	1	47,329.40	x	0.002735	=	129.43	133
		2,199,840.00	x	0.000002	=	4.49	
Client Facility 0102	1	820.53	x	0.000036	=	0.03	2
		800.00	x	0.002735	=	2.19	
Client Facility 0103	1	209.86	x	0.000036	=	0.01	100
		36,652.60	x	0.002735	=	100.24	
Client Facility 0105	1	266.10	x	0.000036	=	0.01	0
	1	150.94	x	0.000000	=	0.00	

Client Facility 0106	1	40,629.60	x	0.001544	=	62.73	147
	1	4,629.30	x	0.002790	=	12.91	
	1	26,298.46	x	0.002735	=	71.92	
	1	9.02	x	0.000036	=	0.00	
	1	0.94	x	0.000000	=	0.00	
	1	9.02	x	0.000000	=	0.00	
Client Facility 0108	1	373,440.00	x	0.000002	=	0.76	32
		7,968.70	x	0.002735	=	21.79	
	1	221,040.00	x	0.000002	=	0.45	
	1	4,370.50	x	0.001544	=	6.75	
	1	1,213,200.00	x	0.000002	=	2.47	
	1	460.90	x	0.000000	=	0.00	
	1	179.87	x	0.000000	=	0.00	
Client Facility 0112	1	391.10	x	0.000036	=	0.01	6
		2,291.00	x	0.002735	=	6.27	
Client Facility 0113	14	820.57	x	0.000036	=	0.03	287
	3	157.25	x	0.000036	=	0.01	
	14	569,624.67	x	0.000002	=	1.16	
	12	487,436.82	x	0.000002	=	1.00	
		10.00	x	0.002735	=	0.03	
		348.00	x	0.002790	=	0.97	
		100.00	x	0.001544	=	0.15	
	4	21,679.06	x	0.000002	=	0.04	
		36,330.10	x	0.002735	=	99.35	
	5	557.75	x	0.000002	=	0.00	
		67,612.90	x	0.002735	=	184.90	
Client Facility 0114	1	0.00	x	0.002735	=	0.00	0
	3	411.05	x	0.000000	=	0.00	
	16	694.74	x	0.000000	=	0.00	
Client Facility 0115	1	261,090.00	x	0.000002	=	0.53	17
		10,755.00	x	0.001544	=	16.61	
Client Facility 0118	8	351.00	x	0.000036	=	0.01	11
		4,040.00	x	0.002735	=	11.05	
Client Facility 0119	1	124,290.00	x	0.000002	=	0.25	0
Client Facility 0120	1	359.22	x	0.000000	=	0.00	0
Client Facility 0121	1	208.79	x	0.000000	=	0.00	0
Client Facility 0201	1	72,420.00	x	0.000002	=	0.15	0
Client Facility 0202	1	63,529.90	x	0.001544	=	98.09	170
		60,120.00	x	0.000036	=	2.16	
	1	45,606.64	x	0.001544	=	70.41	

Client Facility 0204	1	134,988.00	x	0.000002	=	0.28	0
Client Facility 0206	7	1,442,711.19	x	0.001544	=	2,227.52	2,227
	1	30,420.00	x	0.000000	=	0.00	
Client Facility 0207	12	9,592.63	x	0.000000	=	0.00	0
	36	7,549.31	x	0.000000	=	0.00	
Client Facility 0211	1	12,097.00	x	0.000036	=	0.44	0
	1	4.00	x	0.000000	=	0.00	
	81	43,944.00	x	0.000000	=	0.00	
Client Facility 0213	1	0.00	x	0.001889	=	0.00	0
	1	58.50	x	0.000000	=	0.00	
Client Facility 0402	1	850,000.00	x	0.000036	=	30.57	30
Client Facility 0404	1	144,627.00	x	0.000002	=	0.30	2
	1	1,073,088.00	x	0.000002	=	2.19	
Client Facility 0405	7	36,185.48	x	0.000000	=	0.00	0
Client Facility 0406	19	1,363.00	x	0.000000	=	0.00	0
Client Facility 0408	24	18,819.49	x	0.000000	=	0.00	0
Client Facility 0701	1	294.35	x	0.000000	=	0.00	0
	1	151.84	x	0.000000	=	0.00	
Client Facility 0702	1	170,286.00	x	0.000002	=	0.35	0
Client Facility 0703	1	445.17	x	0.000000	=	0.00	0
	1	385.60	x	0.000000	=	0.00	
Client Facility 0704	1	41,700.00	x	0.000002	=	0.09	10
		3,983.90	x	0.002735	=	10.89	
Client Facility 0706	1	6,542.00	x	0.001544	=	10.10	10
	1	1.52	x	0.000000	=	0.00	
	1	5.68	x	0.000000	=	0.00	
	1	1.46	x	0.000000	=	0.00	
Client Facility 0707	33	1,420.75	x	0.000000	=	0.00	0
Client Facility 0708	10	4,200.61	x	0.000036	=	0.15	0
	22	14,115.48	x	0.000000	=	0.00	
Client Facility 0801	1	262,856.00	x	0.000002	=	0.54	0
Client Facility 0805	1	119,010.30	x	0.002735	=	325.46	370
		29,164.90	x	0.001544	=	45.03	
Client Facility 0807	1	591.55	x	0.000000	=	0.00	0
	1	1,254.66	x	0.000000	=	0.00	
	1	1,270.93	x	0.000000	=	0.00	
Client Facility 0809	1	13.93	x	0.000036	=	0.00	0
Client Facility 0810	18	668.98	x	0.000036	=	0.02	51
		21,308.00	x	0.002422	=	51.62	
Client Facility 0901	1	344,313.03	x	0.001764	=	607.36	1,950

		27,523.13	x	0.001544	=	42.50	
		6,575.00	x	0.000036	=	0.24	
	1	344,313.03	x	0.001764	=	607.36	
		27,523.13	x	0.001544	=	42.50	
		6,575.00	x	0.000036	=	0.24	
	1	344,313.03	x	0.001764	=	607.36	
		27,523.13	x	0.001544	=	42.50	
		6,575.00	x	0.000036	=	0.24	
	1	4,198.59	x	0.000036	=	0.15	
	27	19,725.00	x	0.000000	=	0.00	
	26	68,207.50	x	0.000000	=	0.00	
Client Facility 1201	9	2,877,144.81	x	0.000036	=	103.48	103
	1	0.00	x	0.000002	=	0.00	
	1	0.00	x	0.000000	=	0.00	
	4	5,627.52	x	0.000000	=	0.00	
Client Facility 1202	1	111,447.00	x	0.001889	=	210.56	233
	1	12,383.00	x	0.001889	=	23.40	
	1	0.00	x	0.001889	=	0.00	
Client Facility 1203	1	3,483.40	x	0.001544	=	5.38	8
		922,320.00	x	0.000002	=	1.88	
	1	250,920.00	x	0.000002	=	0.51	
	1	118,000.00	x	0.000002	=	0.24	
Client Facility 1204	1	2,097.18	x	2.486830	=	5,215.33	6,327
	1	4,555.34	x	0.001889	=	8.61	
	1	308,360.35	x	0.001889	=	582.59	
	1	114,582.47	x	0.001544	=	176.91	
	1	209,031.69	x	0.001544	=	322.74	
		10,643,060.00	x	0.000002	=	21.71	
Client Facility 1205	1	67,187.70	x	0.002735	=	183.74	320
	1	26,486.50	x	0.002361	=	62.54	
		26,487.00	x	0.002790	=	73.89	
Client Facility 1501	10	138,325.00	x	0.002422	=	335.07	865
	10	2,675.75	x	0.000036	=	0.10	
		138,325.00	x	0.002422	=	335.07	
		126,269.00	x	0.001544	=	194.96	
	1	2,675.75	x	0.000000	=	0.00	
Client Facility 1504	1	16,903.41	x	0.000783	=	13.24	13
	1	648.26	x	0.000000	=	0.00	
Client Facility 1505	5	7,010.96	x	0.000036	=	0.25	1,931
		731,511.00	x	0.001889	=	1,382.06	

	2	2,936.56	x	0.000036	=	0.11	
		355,883.00	x	0.001544	=	549.48	
Client Facility 1506	12	582.38	x	0.000000	=	0.00	0
	12	2,092.05	x	0.000000	=	0.00	
	12	3,889.05	x	0.000000	=	0.00	
	12	2,531.87	x	0.000000	=	0.00	
Client Facility 1507	1	269.98	x	0.000000	=	0.00	0
	1	1,897.94	x	0.000000	=	0.00	
	1	1,106.47	x	0.000000	=	0.00	
Client Facility 1508	25	4,881.21	x	0.000000	=	0.00	0
	25	321.45	x	0.000000	=	0.00	
	25	1,716.58	x	0.000000	=	0.00	
	25	6,341.88	x	0.000000	=	0.00	
Client Facility 1509	1	3,474.00	x	0.000036	=	0.12	0
	1	2,607.50	x	0.000000	=	0.00	
	1	2,607.50	x	0.000000	=	0.00	
Client Facility 1510	1	0.00	x	0.000002	=	0.00	0
	3	3,633.06	x	0.000000	=	0.00	
	1	30.20	x	0.000000	=	0.00	
Client Facility 1511	1	262,170.00	x	0.000002	=	0.53	0
		193.00	x	0.001544	=	0.30	
Client Facility 1601	76	23,806.09	x	0.000036	=	0.86	0
	5	7,620.26	x	0.000000	=	0.00	
Client Facility 1602	35	1,453,910.86	x	0.000061	=	88.69	88
Client Facility 1603	43	528,630.01	x	0.001889	=	998.75	998
	43	35,057.26	x	0.000000	=	0.00	
	1	539.16	x	0.000000	=	0.00	
	1	7.39	x	0.000000	=	0.00	
	1	325.67	x	0.000000	=	0.00	
Client Facility 1604	1534	38,799.00	x	0.000000	=	0.00	0
	14	10,791.00	x	0.000000	=	0.00	
Client Facility 1701	1	6,812.00	x	0.001889	=	12.87	14
		719,514.00	x	0.000002	=	1.47	
	1	1,900.58	x	0.000000	=	0.00	
	1	1,439.05	x	0.000000	=	0.00	
Total:	**2430**						**16,455**

PEy values have been rounded down for conservativeness.

The project emissions PEy = 16,455tCO_2e

5.3 Leakage Emissions

At Project Unit level, the leakage, during the period of January First, 2022, to December 31st, 2022, is *de minimus*, thus LEy=0.

5.4 GHG Emission Reductions and Carbon Dioxide Removals

The Emission Reduction is calculated by subtracting the Project Emissions from Baseline Emissions.

Thus, $ER_y = BE_y - PE_y - LE_y$

Vintage period	Baseline emissions (tCO_2e)	Project emissions (tCO_2e)	Leakage emissions (tCO_2e)	Reduction VCUs (tCO_2e)	Removal VCUs (tCO_2e)	Total VCUs (tCO_2e)
01-Jan-2022 to 31-Dec-2022	761,989	16,455	*De minimus*	745,534	0	745,534
Total	761,989	16,455	*De minimus*	745,534	0	745,534

It is important to note that all PAIs from this group project are ex-post and not ex-ante.

Vintage period	Ex-ante estimated reductions/ removals	Achieved reductions/ removals	Percent difference	Explanation for the difference
01-Jan-2022 to 31-Dec-2022	2,350,000	745,534	-68.27%	Recruitment of new Client Facilities and new PAIs into the Sustainable Community project was not as high as expected.
Total	2,350,000	745,534	-68.27%	

APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

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

Section	Information	Justification
5	Client Facility names are anonymized and replaced by Client Facility ID numbers	1) Protecting Client Facility Privacy: Anonymizing client facility names safeguards their privacy, ensuring that sensitive information (e.g. financial and commercial) remains confidential. 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). 3) Maintaining Competitive Advantage: Anonymizing client facility names prevents competitors from gaining insights into the Project Proponent's client base, strategies, or market positioning. 4) Enhancing Trust and Professionalism: Anonymizing client facility names demonstrates a commitment to professionalism and discretion, fostering trust between the company and its clients (ie. Client Facilities)

APPENDIX 2: ADDRESSING DOUBLE COUNTING RISKS CONCERNS

A-1 Addressing the double counting risks associated with the SPEDE

The project proponent, WILL Solutions Inc., has addressed the double counting concerns of the VCS Program in the previous six Monitoring Reports regarding the Quebec's Cap-and-Trade System for GHG allowances, named the SPEDE. The RSPEDE is the regulation behind the SPEDE and targets:

- Industrial facilities that emit 25,000 metric tons of CO_2 equivalent (t CO_2e) or more per year.
- Producers and importers of electricity, whose GHG emissions associated with the production of that electricity equal or exceed 25,000 t CO_2e per year;
- Distributors of fuels and fossil fuels used in Quebec (gasoline, diesel, propane, natural gas, and heating oil).[14]

WILL Solutions Inc. ensures there is no double-counting issue associated with the SPEDE by excluding all the entities listed above from the Sustainable Community project, as well as:

- Excluding any Client Facility that emits ≥ 25,000 t CO_2e per year.
- Excluding any Client Facility that is subject to the SPEDE.
- Excluding any Client Facility that participates voluntarily to the SPEDE.

All entities registered to the RSPEDE, either subjected and participating voluntarily, are publicly disclosed and available on the website of the Ministry of Environment, Climate Change, Wildlife and Parks of Quebec[15]. The project proponent is therefore able to easily and regularly verify that none of the facilities of the members of its Sustainable Community are subject to the SPEDE. As of 2021, an estimated 80 facilities and over 40 fossil fuel distributors were regulated[16] under the RSPEDE.

More information on the Quebec's Cap-and-Trade system and its scope can be found in its technical overview: https://www.environnement.gouv.qc.ca/changements/carbone/documents-spede/technical-overview.pdf

[14] https://www.environnement.gouv.qc.ca/changementsclimatiques/marche-carbone.asp
[15] https://www.environnement.gouv.qc.ca/changements/carbone/participants-inscrits-au-SPEDE.htm
[16] List of fossil fuel distributors https://www.environnement.gouv.qc.ca/changements/carbone/etablissements-SPEDE.pdf

A-2 Addressing the double-counting risks associated with sectoral scope 3 ERs

The project proponent, WILL Solutions Inc., has addressed the double counting concerns of the VCS Program in previous Monitoring Reports regarding the quantification of sectoral scope 3 GHG reductions for the period effective after January 1st, 2015.

WILL Solutions Inc. has concluded that there is no double-counting issue by taking the measures necessary to avoid the risks of double counting associated with the inclusion of sectoral scope 3 PAIs in its Sustainable Community project by doing the following:

1. All GHG reductions from the 341 PAI associated with the sectoral scope 3 in this monitoring report are unique, since the project proponent uses a conservative and rigorous approach that systematically disqualifies and excludes any PAI linked to grid electricity producers and distributors. Sectoral scope 3 PAIs in this Monitoring Report are therefore completely removed from the double counting rhetorical label.

2. All energy and fossil fuel distributors that are regulated under the RSPEDE are systematically excluded from this project to avoid completely any risk of double-counting.

For the period of January 1st, 2022, to December 31st 2022, scope 3 emissions account for 167,598 tCO_2e of emission reductions. This amount is included in this Monitoring Report and will be serialized under the VCS program.

APPENDIX 3: RESULTS FOR THE EXCLUDED EMISSION REDUCTIONS OF 2018-2022

The project proponent, WILL Solutions Inc. (WSI), asked the VVB to verify in its mandate the net GHG emissions reductions quantified from the period January 1st, 2018 to December 31st, 2022. The amount of these verified GHG reductions represents 551,676 tCO_2e. These verified GHG reductions are excluded from this monitoring report and **will not be serialized under the VCS program**. The project proponent can demonstrate and provide evidence upon request that the 2018-2021 emission reductions reported in Table 4 below were not reported in previous monitoring reports, and therefore that there are no risks of double counting with all previous monitoring reports.

Table 4 List of GHG emission reductions quantified by vintage from the period of January 1st, 2018, to December 31st, 2022.

	GHG emissions in (tCO_2e)			
Year	Baseline emissions (tCO_2e)	Project emissions (tCO_2e)	Leakage emissions (tCO_2e)	Net emission reductions (tCO_2e)
2018	77,969	798	*De minimus*	77,171
2019	101,251	991	*De minimus*	100,260
2020	118,765	1,043	*De minimus*	117,722
2021	99,706	1,620	*De minimus*	98,086
2022	161,540	3,103	*De minimus*	158,437
Total 2018-2021	**559,231**	**7,555**	***De minimus***	**551,676**

The excluded net GHG emission reductions for the years 2018, 2019, 2020, 2021, and 2022 in the above Table include reductions from both sectoral scope 3 and sectoral scope 13. Detailed yearly calculations for each Client Facility are available upon request.

APPENDIX 4: DATA, PARAMETERS, AND MONITORING PLAN

4-1 The Emission Factor (EF) used in this Monitoring Report

Scope 3 Emission Factors

Table 10 Emission Factors used in this Monitoring report for sectoral scope 3 PAIs

	Sectoral Scope	Source, date issued	Energy Type	Unit	Value tCO_2/unit
1	3	MERN, August 16, 2019	Butane	L	0.001764
2	3	MERN, August 16, 2019	Biomass and bark residue	Mt	0.000036
3	3	MERN, August 16, 2019	Diesel	L	0.002789
4	3	MERN, August 16, 2019	Electricity	KWh	0.000002
5	3	MERN, August 16, 2019	Gasoline	L	0.002361
6	3	MERN, August 16, 2019	Coal coke	Mt	0.002487
7	3	MERN, August 16, 2019	Natural gas	M^3	0.001889
8	3	MERN, August 16, 2019	Fuel oil no. 2	L	0.002735
9	3	MERN, August 16, 2019	Fuel oil no. 6	L	0.003146
10	3	MERN, August 16, 2019	Lubricants (Used oils)	L	0.002422
11	3	Life Cycle Carbon Benefits of Aerospace Alloy Recycling[17]	Recycled metal (FeTi)	Mt	0.000061
12	3	MERN, August 16, 2019	Propane	L	0.001544
13	3	USEPA, WARM v.15, 2020	Grain Material Source Produced	Mt	0.683240

Web reference: https://transitionenergetique.gouv.qc.ca/fileadmin/medias/pdf/FacteursEmission.pdf

Scope 13 Emission Factors

Emission factors for scope 13 project activity instances are from the U.S. Environmental Protection Agency Waste Reduction Model (WARM) version 15 (November 2020). The emission factors use the following values for OX, MCF and K_j:

OX = 0.2, as used by the WARM
MCF = 1, default for anaerobic managed solid waste disposal sites.
K_j = 0.052/year ("National Average"), corresponding to a weighted average[18].

[17] 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. https://doi.org/10.1016/j.jclepro.2014.05.039

[18] EPA WARM Documentation for Greenhouse Gas Emission and Energy Factors Used in the Waste Reduction Model (WARM) : https://www.epa.gov/system/files/documents/2024-01/warm_management_practices_v16_dec.pdf

Table 11 Emission Factors used in this Monitoring report for sectoral scope 13 PAIs

	Sectoral Scope	Source, date issued	Waste Type	Unit	Value $tCO_2/unit$
1	13	USEPA, WARM v.15, 2020	Food/Organic waste	Mt	0.683240
2	13	USEPA, WARM v.15, 2020	Corrugated container	Mt	3.658640
3	13	USEPA, WARM v.15, 2020	Mixed paper primarily residential	Mt	3.934140
4	13	CDM scope 13; AMS-III-E	Sewage & septic sludges	Mt	2.084940
5	13	USEPA, WARM v.15, 2020	Asphalt shingles	Mt	0.121220
6	13	USEPA, WARM v.15, 2020	Medium density fiberboard	Mt	1.785240
7	13	USEPA, WARM v.15, 2020	Dimensional lumber	Mt	1.917480
8	13	USEPA, WARM v.15, 2020	Mixed Plastics	Mt	1.04690
9	13	BEAM 2022 (ECCC)	Digestate spreading	Mt	0.83500
10	13	USEPA, WARM v.15, 2020	*Green residues; Putrescible*	Mt	*0.683240*

Web reference: https://www.epa.gov/warm/versions-waste-reduction-model-warm#15

4-2 Data and parameter description /Generic PAI

Table 12 Data and Parameter PAI (generic) I Biomass Energy Project

	Generic PAI Reference Number	I	I	I	I
	Description of Generic PAI	Biomass Energy Project	Biomass Energy Project	Biomass Energy Project	Biomass Energy Project
3.1	Data/Parameter available at validati	EF Propane (Σ CO_2/CH_4/N_2O)	EF Butane (Σ CO_2/CH_4/N_2O)	EF Diesel (Σ CO_2/CH_4/N_2O)	EF Electricity (Σ CO_2/CH_4/N_2O)
a	unit	t eCO_2/L	t eCO_2/L	t eCO_2/L	t eCO_2/kWh
b	Description	Combined Emission Factor for Propane	Combined Emission Factor for Butane	Combined Emission Factor for Diesel	Emission Factor for Electricity
c	Source of data	IPCC, Environment Canada, AEE	IPCC, Environment Canada, AEE	IPCC, Environment Canada, AEE	AEE
d	Value applied	*0,001544*	*0,001764*	*0,002789*	*0,000003*
d	Description of measurement	IPCC-UNFFCC / Env. Canada / AEE	Official Emission Factors Determination	Official Emission Factors Determinatio	Official Emission Factors Determination
e	Purpose of data	Parameters for Baseline and Project Em.	Parameters for Baseline and Project Em.	Parameters for Project Emission	Parameters for Project Emission
3.2	Data/Parameter monitored				
a	Data	Propane	Butane	Diesel	Electricity
	Option A or Option B Measurement	Option A	Option A	Option A	Option A: nominal
	Source/Sink identification	B7 and P7	B7 and P7	P7	P7
b	Data Unit	L	L	L	kWh
c	Description	Used in Dryer 1, 2 and 3	Used in Dryer 1, 2 and 3		
d	Source of data	Meter from distributor	Meter from distributor	Meter from Boisaco Tank Station	Meter from HydroQuebec
e	Description of measurement	Amount of Propane delivered	Amount of Butane delivered	Volume of Diesel tanked in the loader	Number of kWh used
f	Frequency	At each delivery	At each delivery	At time of tanking	At each HQ billing period
g	Value monitored	Liters	Liters	Liters	kWh
h	Monitoring equipment	Fuel Distributor Meter	Fuel Distributor Meter	Fuel Distributor Meter	HQ Electricity Meter
i	QA/QC procedures	Delivery in line with Tank nominal value	Delivery in line with Tank nominal value	Delivery in line with tank nominal value	Ex-ante comparison
j	Purpose of data	Baseline scenario for drying PMP	Baseline scenario for drying PMP	Project scenario biomass moving	Project scenario for drying PMP
k	Calculation method	Propane Volume consumed	Butane Volume consumed	Usage portion estimate	Nominal Aggregate Electrical Motor installed
l	Comments	Project Units/PAI using similar technology may used different fossil combustibles. In such instance, Emission Factors will be defined accordingly.			

Table 13 Data and Parameter PAI II (generic) Methane Avoidance Emission

	Generic PAI Reference Number	II
	Description of Generic PAI	Methane Emission Avoidance
3.1	Data/Parameter available at validati	EF DOC_j (Σ CO_2/CH_4/N_2O)
a	unit	t eCO_2/MT
b	Description	Combined Emission Factor for Fraction of Degradable organic Carbon (by weight)
c	Source of data	IPCC, Environment Canada, AEE
d	Value applied	*0,0616*
d	Description of measurement	IPCC-UNFFCC / Env. Canada / AEE
e	Purpose of data	Parameters for Baseline and Project Em.
3.2	Data/Parameter monitored	
a	Data	Volume of Biomass
	Option A or Option B Measurement	Option A
	Source/Sink identification	B7
b	Data Unit	t
c	Description	Used in Biomass Furnace
d	Source of data	Number of Loads
e	Description of measurement	Cumulative amount of biomass in the furnace
f	Frequency	At each load
g	Value monitored	Loader shovel
h	Monitoring equipment	Weighting bridge
i	QA/QC procedures	Monthly calibration of the loader
j	Purpose of data	Methane Emission Avoidance
k	Calculation method	Comparison from B7 and P7
l	Comments	Project Units/PAI using similar technology may used different fossil combustibles. In such instance, Emission Factors will be defined accordingly.

Table 14 Data and Parameter PAI (generic) III Torrefied Biomass Combustible

	Generic PAI Reference Number	III
	Description of Generic PAI	Torrefied Biomass Combustible
3.1	Data/Parameter available at validati	EF DOC_j (Σ CO_2/CH_4/N_2O)
a	unit	t eCO_2/MT
b	Description	Combined Emission Factor for Fraction of Degradable organic Carbon (by weight)
c	Source of data	IPCC, Environment Canada, AEE
d	Value applied	*0,0616*
d	Description of measurement	IPCC-UNFFCC / Env. Canada / AEE
e	Purpose of data	Parameters for Baseline and Project Em.
3.2	Data/Parameter monitored	
a	Data	Volume of Biomass
	Option A or Option B Measurement	Option A
	Source/Sink identification	B7
b	Data Unit	t
c	Description	Used in Biomass Furnace
d	Source of data	Number of Loads
e	Description of measurement	Cumulative amount of biomass in the furnace
f	Frequency	At each load
g	Value monitored	Torrefied Biomass Combustible Volume
h	Monitoring equipment	Weighting bridge
i	QA/QC procedures	Monthly calibration of the loader
j	Purpose of data	Methane Emission Avoidance
k	Calculation method	Comparison from B7 and P7
l	Comments	Project Units/PAI using similar technology may used different fossil combustibles. In such instance, Emission Factors will be defined accordingly.

Table 15 Data and Parameter PAI (generic) IV Saving energy on recycling activities

	Generic PAI Reference Number	IV	IV	IV	IV	IV	IV	IV
	Description of Generic PAI	Saving Energy on Recycling Activities	Saving Energy on Recycling Activities	Saving Energy on Recycling Activities	Saving Energy on Recycling Activities	Saving Energy on Recycling Activities	Saving Energy on Recycling Activities	Saving Energy on Recycling Activities
3.1	Data/Parameter available at validati	EF HDPE (Σ CO2/CH4/N2O)	EF PET (Σ CO2/CH4/N2O)	EF PVC (Σ CO2/CH4/N2O)	EF LDPE (Σ CO2/CH4/N2O)	EF PP (Σ CO2/CH4/N2O)	EF PS (Σ CO2/CH4/N2O)	EF PC/ABS/MDPE (Σ CO2/CH4/N2O)
a	unit	t eCO_2/1'000 Lbs	t eCO_2/1'000 Lbs	t eCO_2/1'000 Lbs	t eCO_2/1'000 Lbs	t eCO_2/1'000 Lbs	t eCO_2/1'000 Lbs	t eCO_2/1'000 Lbs
b	Description	Combined Emission Factor for HDPE	Combined Emission Factor for PET	Combined Emission Factor for PVC	Combined Emission Factor for LDPE	Combined Emission Factor for PP	Combined Emission Factor for PS	Combined Emission Factor for PC/ABS/MDPE
c	Source of data	EPA	EPA	EPA	EPA	EPA	EPA	EPA
d	Value applied	*0,71*	*1,15*	*0,99*	*0,895*	*0,775*	*1,25*	*0,93*
d	Description of measurement	EPA Net Emission Factor	EPA Net Emission Factor	EPA Net Emission Factor	EPA Net Emission Factor	EPA Net Emission Factor	EPA Net Emission Factor	EPA Net Emission Factor
e	Purpose of data	Parameters for Project Emission.	Parameters for Project Emission.	Parameters for Project Emission.	Parameters for Project Emission.	Parameters for Project Emission.	Parameters for Project Emission.	Parameters for Project Emission.
3.2	Data/Parameter monitored							
a	Data	HDPE	PET	PVC	LDPE	PP	PS	PC/ABS/MDPE
	Option A or Option B Measurement	Option A	Option A	Option A	Option A	Option A	Option A	Option A
	Source/Sink identification	P9	P9	P9	P9	P9	P9	P9
b	Data Unit	t	t	t	t	t	t	t
c	Description	Volume of recycled plastic	Volume of recycled plastic	Volume of recycled plastic	Volume of recycled plastic	Volume of recycled plastic	Volume of recycled plastic	Volume of recycled plastic
d	Source of data	Weighting Balance or Bridge	Weighting Balance or Bridge	Weighting Balance or Bridge	Weighting Balance or Bridge	Weighting Balance or Bridge	Weighting Balance or Bridge	Weighting Balance or Bridge
e	Description of measurement	Amount of HDPE delivered	Amount of PET delivered	Amount of PVC delivered	Amount of LDPE delivered	Amount of PP delivered	Amount of PS delivered	Amount of PC/ABS/MDPE delivered
f	Frequency	At each delivery	At each delivery	At each delivery	At each delivery	At each delivery	At each delivery	At each delivery
g	Value monitored	t	t	t	t	t	t	t
h	Monitoring equipment	Calibrated weighting devices	Calibrated weighting devices	Calibrated weighting devices	Calibrated weighting devices	Calibrated weighting devices	Calibrated weighting devices	Calibrated weighting devices
i	QA/QC procedures	Double check: seller and buyer weight	Double check: seller and buyer weight	Double check: seller and buyer weight	Double check: seller and buyer weight	Double check: seller and buyer weigh	Double check: seller and buyer weigh	Double check: seller and buyer weight
j	Purpose of data	Emission avoided with recycled plastic	Emission avoided with recycled plastic	Emission avoided with recycled plastic	Emission avoided with recycled plastic	Emission avoided with recycled plasti	Emission avoided with recycled plasti	Emission avoided with recycled plastic
k	Calculation method	HDPE Volume delivered	PET Volume delivered	PVC Volume delivered	LDPE Volume delivered	PP Volume delivered	PS Volume delivered	PC/ABS/MDPE Volume delivered
l	Comments	Project Units/PAI using similar technology may used different fossil combustibles. In such instance, Emission Factors will be defined accordingly.						

Table 16 Data and Parameter PAI (generic) V Heat Recovery

	Generic PAI Reference Number	V	V
	Description of Generic PAI	Heat Recovery	Heat Recovery
3.1	Data/Parameter available at validati	EF Propane (Σ CO_2/CH_4/N_2O)	EF Electricity (Σ CO_2/CH_4/N_2O)
a	unit	t eCO_2/L	t eCO_2/kWh
b	Description	Combined Emission Factor for Propane	Emission Factor for Electricity
c	Source of data	IPCC, Environment Canada, AEE	AEE
d	Value applied	*0,001544*	*0,000003*
d	Description of measurement	IPCC-UNFFCC / Env. Canada / AEE	Official Emission Factors Determination
e	Purpose of data	Parameters for Baseline and Project Em.	Parameters for Project Emission
3.2	Data/Parameter monitored		
a	Data	Propane	Electricity
	Option A or Option B Measurement	Option A	Option A: nominal
	Source/Sink identification	B7 and P7	P7
b	Data Unit	L	kWh
c	Description	Used for Heating buildings	Used for Heating buildings
d	Source of data	Meter from distributor	Meter from HydroQuebec
e	Description of measurement	Amount of Propane delivered	Number of kWh used
f	Frequency	At each delivery	At each HQ billing period
g	Value monitored	Liters	kWh
h	Monitoring equipment	Fuel Distributor Meter	HQ Electricity Meter
i	QA/QC procedures	Delivery in line with Tank nominal value	Ex-ante comparison
j	Purpose of data	Baseline scenario for heating Building	Baseline scenario for heating Building
k	Calculation method	Propane Volume consumed	Installed Nominal Electrical Equipement
l	Comments	Project Units/PAI using similar technology may used different fossil combustibles. In such instance, Emission Factors will be defined accordingly.	

Table 17 Data and Parameter PAI (generic) VII Energy Efficiency Demand Side

	Generic PAI Reference Number	VII	VII
	Description of Generic PAI	Saving Energy on Recycling Activities	Saving Energy on Recycling Activities
3.1	Data/Parameter available at validati	EF Oil N°6 (Σ CO2/CH4/N2O)	EF Electricity (Σ $CO_2/CH_4/N_2O$)
a	unit	t eCO_2/L	t eCO_2/kWh
b	Description	Combined Emission Factor for Oil N°6	Emission Factor for Electricity
c	Source of data	IPCC, Environment Canada, AEE	AEE
d	Value applied	*0,001544*	*0,000003*
d	Description of measurement	IPCC-UNFFCC / Env. Canada / AEE	Official Emission Factors Determination
e	Purpose of data	Parameters for Baseline and Project Em.	Parameters for Project Emission
3.2	Data/Parameter monitored		
a	Data	Oil N°6	Electricity
	Option A or Option B Measurement	Option A	Option A: nominal
	Source/Sink identification	B7	P7
b	Data Unit	L	kWh
c	Description	Used in Furnace to heat building	Used to heat building
d	Source of data	Meter from distributor	Meter from HydroQuebec
e	Description of measurement	Amount of Oil N°6 delivered	Number of kWh used
f	Frequency	At each delivery	At each HQ billing period
g	Value monitored	Liters	kWh
h	Monitoring equipment	Fuel Distributor Meter	HQ Electricity Meter
i	QA/QC procedures	Delivery in line with Tank nominal value	Ex-Ante Comparison
j	Purpose of data	Baseline scenario for heating building	Baseline/Project scenario for lighting and heating building
k	Calculation method	Oil N°6 Volume consumed	Nominal Electrical Heater installed
l	Comments	Project Units/PAI using similar technology may used different fossil combustibles. In such instance, Emission Factors will be defined accordingly.	

Table 18 Data and Parameter PAI (generic) VIII Fuel Switching

	Generic PAI Reference Number	VIII	VIII	VIII
	Description of Generic PAI	Fuel Switching	Fuel Switching	Fuel Switching
3.1	Data/Parameter available at validati	EF Propane (Σ $CO_2/CH_4/N_2O$)	EF Oil N° 2 (Σ CO2/CH4/N2O)	EF Electricity (Σ $CO_2/CH_4/N_2O$)
a	unit	t eCO_2/L	t eCO_2/L	t eCO_2/kWh
b	Description	Combined Emission Factor for Propane	Combined Emission Factor for Oil N° 2	Emission Factor for Electricity
c	Source of data	IPCC, Environment Canada, AEE	IPCC, Environment Canada, AEE	AEE
d	Value applied	*0,001544*	*0,002734*	*0,000003*
d	Description of measurement	IPCC-UNFFCC / Env. Canada / AEE	IPCC-UNFFCC / Env. Canada / AEE	Official Emission Factors Determination
e	Purpose of data	Parameters for Baseline and Project Em.	Parameters for Baseline and Project Em.	Parameters for Project Emission
3.2	Data/Parameter monitored			
a	Data	Propane	Oil N°2	Electricity
	Option A or Option B Measurement	Option A	Option A	Option B
	Source/Sink identification	B7 and P7	B7 and P7	B7 and P7
b	Data Unit	L	L	kWh
c	Description	Used in Dryer 1, 2 and 3	Used in Furnace to heat building	
d	Source of data	Meter from distributor	Meter from distributor	Meter from HydroQuebec
e	Description of measurement	Amount of Propane delivered	Amount of Oil N°2 delivered	Number of kWh used
f	Frequency	At each delivery	At each delivery	At each HQ billing period
g	Value monitored	Liters	Liters	kWh
h	Monitoring equipment	Fuel Distributor Meter	Fuel Distributor Meter	HQ Electricity Meter
i	QA/QC procedures	Delivery in line with Tank nominal value	Delivery in line with Tank nominal value	Ex-Ante Comparison
j	Purpose of data	Baseline/Project scenario for heating building	Baseline/Project scenario for heating building	Baseline/Project scenario for heating building
k	Calculation method	Propane Volume consumed	Oil N°2 Volume consumed	Nominal Electrical Lighting and Equipement
l	Comments	Project Units/PAI using similar technology may used different fossil combustibles. In such instance, Emission Factors will be defined accordingly.		

Table 19 Data and Parameter PAI (generic) IX Energy conservation

	Generic PAI Reference Number	IX
	Description of Generic PAI	Energy Conservation
3.1	Data/Parameter available at validati	EF Oil N° 2 (Σ CO2/CH4/N2O)
a	unit	t eCO_2/L
b	Description	Combined Emission Factor for Oil N° 2
c	Source of data	IPCC, Environment Canada, AEE
d	Value applied	0,000822
d	Description of measurement	IPCC-UNFFCC / Env. Canada / AEE
e	Purpose of data	Parameters for Baseline and Project Em.
3.2	Data/Parameter monitored	
a	Data	Oil N°2
	Option A or Option B Measurement	Option A
	Source/Sink identification	P7
b	Data Unit	L
c	Description	Avoided emissions from Oil N° 2 extraction
d	Source of data	Volume of Oil N° 2 recovered
e	Description of measurement	Amount of Oil N°2 delivered
f	Frequency	At each delivery
g	Value monitored	Liters
h	Monitoring equipment	Volume determined by drums
i	QA/QC procedures	Delivery in line with Tank nominal value
j	Purpose of data	Avoided emissions from Oil N° 2 extraction
k	Calculation method	Oil N°2 Volume recovered
l	Comments	Project Units/PAI using similar technology may used different fossil combustibles. In such instance, Emission Factors will be defined accordingly.

Table 20 Data and Parameter PAI (generic) X Energy Efficiency Demand side: New buildings conservation

	Generic PAI Reference Number	X	X	X
	Description of Generic PAI	Energy Efficiency Demand Side: new buildings	Energy Efficiency Demand Side: new buildings	Energy Efficiency Demand Side: new buildings
3.1	Data/Parameter available at validati	EF Gaz Nat (Σ CO2/CH4/N2O)	EF Oil N° 2 (Σ CO2/CH4/N2O)	EF Electricity (Σ $CO_2/CH_4/N_2O$)
a	unit	t eCO_2/M^3	t eCO_2/L	t eCO_2/kWh
b	Description	Combined Emission Factor for Gaz Nat	Combined Emission Factor for Oil N° 2	Emission Factor for Electricity
c	Source of data	IPCC, Environment Canada, AEE	IPCC, Environment Canada, AEE	AEE
d	Value applied	*0,001902*	*0,002734*	*0,000003*
d	Description of measurement	IPCC-UNFFCC / Env. Canada / AEE	IPCC-UNFFCC / Env. Canada / AEE	Official Emission Factors Determination
e	Purpose of data	Parameters for Baseline and Project Em.	Parameters for Baseline and Project Em.	Parameters for Project Emission
3.2	Data/Parameter monitored			
a	Data	Gaz Nat	Oil N°2	Electricity
	Option A or Option B Measurement	Option A	Option A	Option A: nominal
	Source/Sink identification	P7	B7	B7 and P7
b	Data Unit	M^3	L	kWh
c	Description	Used in Furnace to heat building	Used in Furnace to heat building	Used to light and heat building
d	Source of data	Meter from Gaz Metro	Meter from distributor	Meter from HydroQuebec
e	Description of measurement	Number of M^3 used	Amount of Oil N°2 delivered	Number of kWh used
f	Frequency	At each Gaz Metro billing period	At each delivery	At each HQ billing period
g	Value monitored	M^3	Liters	kWh
h	Monitoring equipment	Gaz Metro Meter	Fuel Distributor Meter	HQ Electricity Meter
i	QA/QC procedures	Ex-Ante	Delivery in line with Tank nominal value	Ex-Ante
j	Purpose of data	Project scenario for heating the building	Baseline scenario for heating building	Baseline/Project scenario for lighting and heating
k	Calculation method	Gaz Nat Volume consumed	Oil N°2 Volume consumed	Nominal Aggregate Electrical Motor installed
l	Comments	sed different fossil combustibles. In such instance, Emission Factors will be defined accordingly.		

5-3 Monitoring Plan

The monitoring plan will be applied to all Project Units as follow:

			Baseline	Project					
Category	**Activity**	**Measure Option**	**Adjustment**	**Parameter**	**Instrument**	**Frequency**	**Incertitude**	**Impact on reduction**	**Adjustment**
Fuel switching	Biomass boiler	Option B		Mass of processed biomass	Loader bucket	Consolidation every week	Estimate of the average mass in the bucket	None	Process yield
Energy efficiency	Heat recovery: process	Option A	Process yield	Volume of fuel	Volume / quantity on invoice*	Continuous	Negligible as measure devices calibrated	None	
	Heat recovery: process	Option B	Process yield	Temperature and debit (enthalpy)	Thermometer / Debit meter	Continuous	Negligible as measure devices calibrated	None	
	Heat recovery: process	Option A		Volume of fuel	Volume / quantity on invoice* when tanking	Transaction based	Residual inventory at the end of the period	Materiality, decrease with tank filling turnover, compensate on the next period	
	Energy efficiency: building heating	Option A	Unit of productivity	Volume of fuel	Volume / quantity on invoice*	Continuous	Negligible as measure devices calibrated	None	Commercial building: unit of productivity
	Energy efficiency: building HVAC	Option A/ Option B	Unit of productivity	Volume of fuel / energy	Volume / quantity on invoice*	Continuous	Negligible as measure devices calibrated	None	Commercial building: unit of productivity
	Energy efficiency: envelope enhancement	Option A	Unit of productivity	Volume of fuel / energy	Volume / quantity on invoice*	Continuous	Negligible as measure devices calibrated	None	Commercial building: unit of productivity
	Energy efficiency: envelope enhancement	Option B	Unit of productivity	Volume of fuel	Volume / quantity on invoice* when tanking	Transaction based	Residual inventory at the end of the period	Materiality, decrease with tank filling turnover, compensate on the next period	Commercial building: unit of productivity
	Energy efficiency: building lighting	Option A	Light intensity	Nominal Wattage	Manufacturer technical data	At the time installation	Negligible as measure devices calibrated	None	

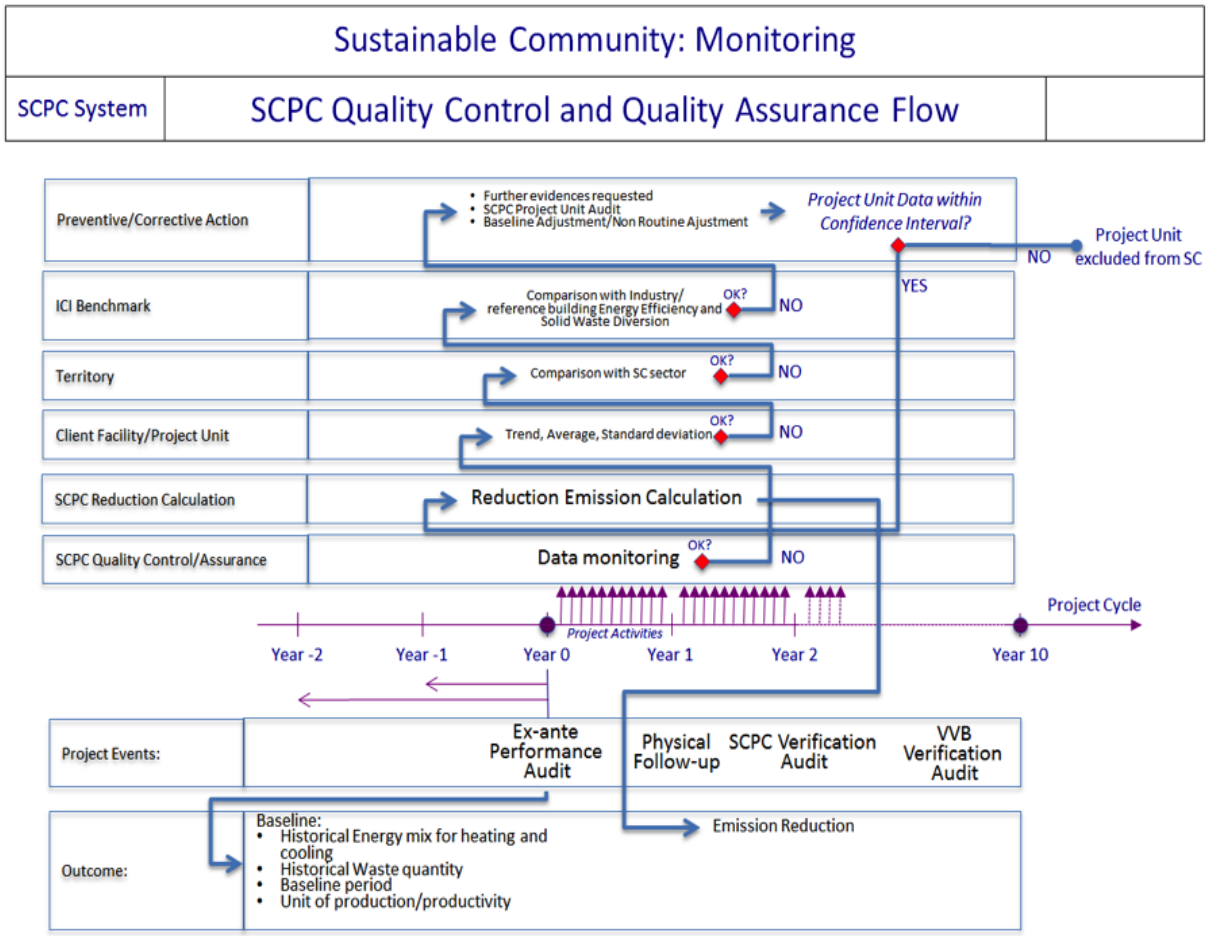
Waste	Waste diversion	Option B		Waste mass / volume	Mass: balance Volume: container	Transaction based	Weight calculation from volume	Materiality as company charged on container
	Waste reduction: substitution of single wood pallets by reusable cardboard palette	Option B		Number of palettes and reusage	Number of travels written on palette/ Bill of lading	Monthly consolidation	Wood palette end of life at point of destination	Max: Energy substitution if burn

*Energy suppliers are required to have their debit meters regularly calibrated: the invoice is then based on the calibrated debit meter reading.

In addition, a Quality Control of the data is performed as follows:

- At the time of registration of the project unit: a physical audit of the premises of the Project Unit takes place, and physical evidence necessary to determine the baseline scenario is collected;
- At each entry in the SCPC system, controls will be run to compare entry to historical data, sectorial SCPC benchmark and to external benchmark;
- Investigation may be necessary to get physical evidence of the data entered into the SCPC system;
- Impact of a possibly recurring issue will be looked at for all the concerned Project Units.
- For each baseline period, a random sample of Project Units will be audited during the project. The sample size will be the square root of the Project Units participating to the SCPC system. Evidence of the audit are kept discrepancies will be analyzed as well as potential impact on related Project Units;

The figure below provides the SCPC validation/verification data workflow:



In terms of organization, there are six levels where potential problems can be escalated, with different levels of responsibility of the organization. Should the system require, a recourse/appeal will be set in place.

APPENDIX 5: SDG CONTRIBUTIONS SUPPORTING EVIDENCE

The following documentation describes the evidence for each declared SDG contribution: 9, 10, 11, 12, 13 and 17. Evidence is available directly through publicly accessible referenced documents, including the VCS project documents: Monitoring Reports and their Verification (VVB) reports. When applied, the evidence is provided through a hyperlink to the supporting evidence.

a. **First series of evidence in place on the Verra registry:**

- Monitoring Report third cohort; July 2019
  - Section 1.10 on Sustainable Development,
  - Section 2.4.1 and 2.4.2 on no net Harm and local Stakeholder Consultation
- The VVB report on the third cohort, July 2019 has confirmed these statements.
- Press release of the 3rd cohort, July 2019
  - Hyperlink: https://www.newswire.ca/news-releases/will-announces-3-million-tons-of-greenhouse-gas-offsets-released-for-sale-870212697.html
- The publication on LinkedIn of an article on November 7, 2016: https://www.linkedin.com/pulse/sustainable-community-solution-catalyst-17-sdgs-martinclermont/?published=t

b. **Second series of evidence in place on the Verra registry:**

- Monitoring Report fourth cohort; September 2020,
  - Section 1.11 on Sustainable Development,
  - Section 2.1: on no net Harm and local Stakeholder Consultation
- The VVB report on the fourth cohort; September 2020 has confirmed these statements.
- Press release of the fourth cohort; September 2020:

- Hyperlink: https://solutionswill.com/wp-content/uploads/2020/09/PR_WILLAnnounces-the-Verified-Results-of-its-4th-Cohort-Sept2020.pdf

c. **Third series of evidence as Will' Sustainability action plan:**

- Will (as project proponent), sustainable development plan action (2018) including scope of monitoring, education, and carbon neutrality: https://solutionswill.com/wp-content/uploads/2020/07/SustainDevelopPlan_20192020.pdf
- 2019: https://solutionswill.com/wp-content/uploads/2019/12/SD-Plan-Update-2019.pdf

- 2020: https://solutionswill.com/wp-content/uploads/2020/07/SustainDevelopGoalsReport_SolutionsWILL_2020.pdf
- 2021:
- https://solutionswill.com/wp-content/uploads/2021/07/SustainableDevelopmentReport_SolutionsWILL_June2021.pdf
- 2022: https://solutionswill.com/wp-content/uploads/2022/07/SustainableDevGoalsReport2021-2022_WILLSolutions_June2022-V.ENG_.pdf
- A 5th distribution of carbon revenues: https://www.newswire.ca/news-releases/ipccit-s-t-minus-one-a-5th-distribution-of-carbon-income--895902007.html
- A 6th distribution of carbon revenues: https://solutionswill.com/en/the-6th-income-distribution-is-here/
- A 7th distribution of carbon revenues: https://www.newswire.ca/news-releases/will-solutions-distributes-2-1m-to-quebec-smes-that-reduce-their-ghg-emissions-845949803.html

d. **Fourth series of evidence; Will's B Corp certification**

- B Corp certification in 2018-2019 and in place since March 2019: https://www.bcorporation.net/en-us/find-a-b-corp/company/solutions-will/
- Certification renewal under process and scheduled for March 2022.

e. **Fifth series of evidence: international Sustainable Community solution.**

- Solar Impulse certification for Sustainable Community, completed in July 2020: https://solarimpulse.com/solutions-explorer/sustainable-community

f. **Last series of evidence;** main memoirs prepared and submitted by Will on Voluntary Carbon Markets (VCM):

- June 2021 on the TSVCM: https://solutionswill.com/wp-content/uploads/2021/07/Will-contribution-to-TSVCM-June2021_Flyer_ANG-VFinal.pdf
- January 2021 on Verra consultation on EFCU: https://solutionswill.com/wp-content/uploads/2021/01/Will-contribution-to-VCS-questions-about-EFCU_15Jan2021.pdf
- November 2020 on TSVCM: https://solutionswill.com/wp-content/uploads/2020/11/Will-contribution-to-TSVCM-V1-V3.pdf
- August 2020 to Environment Canada and Climate change on carbon pricing: https://solutionswill.com/wp-content/uploads/2020/08/Federal-carbon-pricing-memoir_by_WILLSolutions_August2020.pdf

- June 2019 comments about the second VCS consultation on the 4.0 VCS program project especially on the issue of the SME's participation and the overlapping Monitoring Report period criteria: https://solutionswill.com/wp-content/uploads/2019/07/Will-Comments-June-2019-on-VCS-version-4-1-1.pdf

- July 2018 comments about the first VCS consultation on the 4.0 VCS program project especially on the issue of the SME's participation and the overlapping Monitoring Report period criteria: https://solutionswill.com/wp-content/uploads/2014/01/wills_comment_on_draft_version_4.0_vcs_july_5_2018.pdf