ENERGY EFFICIENCY AND SOLID WASTE DIVERSION ACTIVITIES WITHIN THE QUEBEC SUSTAINABLE COMMUNITY

Document Prepared by the quantification team of WILL Solutions Inc.

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CONTENTS

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). The project groups a large range of Client Facilities, all located inside the Province of Quebec, mainly small to medium sized companies (each emit ≤ 25,000 tCO_2e of GHG emission/year, i.e., small final emitters (SFEs)), that are part of the industrial, commercial, or institutional (ICI) sector.

This project has been 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 businesses and organizations. The main objectives are:

1. To group inside a "Sustainable Community within a territory", 100 to 2,000 Client Facilities, all located inside the Province of Quebec, that will achieve a potential 34,250,000 tCO_2e of emission reductions for the period 2020-2029.
2. To stimulate and reward ICI business units – large or small facilities – for their efforts to reduce GHG emissions, by giving them access to local and international markets based on recognized programs.
3. To collect ground data in real time, and consequently, stimulate and enhance ICI facilities for a better sustainable behavior.
4. To stimulate and reward 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 project is implemented since January 1st, 2010. At the Client Facility level, despite the existence of different scenarios to cope with the reality of different business units, all Project Units/Project Activity Instances (PAI)/Business Units have adhered to the Sustainable Community (SC) project with ongoing Project Units/PAI. Since the beginning, WILL's efforts have focused on recruiting new members and their Project Units/PAI into the project. For some Client Facilities, PAIs are at the development or early implementation stage. The group approach requires progressive phasing of the PAIs, and future monitoring reports will consider new PAIs which will be integrated into the SC between the first verification and the following ones.

The total GHG emission reductions for the 752 PAIs active under the period starting January 1st, 2020, to December 31st, 2021, included in this Monitoring Report are 1,624,899 tCO_2e. For the

period of January 1st, 2020, to December 31st, 2020, with 786,226 tCO_2e, the yearly average is equivalent to 1,045 tCO_2e per PAI. For the period of January 1st, 2021, to December 31st, 2021, with 838,673 tCO_2e, the yearly average is equivalent to 1,217 tCO_2e per PAI.

Table 1 Audit History of the Project 929

Audit Type	Period	Program	VVB Name	Number of years
Project Validation	11-07-2013	VCS Program	SGS United Kingdom Ltd.	n.a.
1st Monitoring Report	01-01-2010 to 31-10-2013	VCS Program	Perry Johnson Registrars Carbon Emissions Services, Inc (PJRCES)	2.5
2nd Monitoring Report	01-11-2013 to 31-12-2015	VCS Program	Perry Johnson Registrars Carbon Emissions Services, Inc (PJRCES)	2 years and 2 months
3rd Monitoring Report	01-01-2016 to 31-12-2016	VCS Program	Earthood Services Private Limited (ESPL)	1
4th Monitoring Report	01-01-2017 to 31-12-2018	VCS Program	Earthood Services Private Limited (ESPL)	1
5th Monitoring Report	01-01-2019 to 31-12-2019	VCS Program	Earthood Services Private Limited (ESPL)	1
Project Renewal	24-05-2021	VCS Program	Earthood Services Private Limited (ESPL)	n.a.
6th Monitoring Report	01-01-2020 to 31-12-2021	VCS Program	LGAI Technological Center, S.A. (APPLUS+)	2

1.2 Sectoral Scope and Project Type

This is a grouped project where the sectoral scopes applicable are scope 3 and scope 13.

1.3 Project Proponent

Organization name	Will Solutions Inc. (WILL)
Contact person	Claudia Lesage
Title	GHG Quantification Manager
Address	Beloeil, Province of Quebec, Canada, J3G 5Z5
Telephone	1 438 897-8007

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Organization name	Will Solutions Inc. (WILL)
Contact person	*Martin Clermont*
Title	*President, Founder, Engineer, and Carbon Expert*
Telephone	1 438 897-8009
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Organization name	Will Solutions Inc. (WILL)
Contact person	*Anne-Marie Gendron*
Title	Chief Operating Officer (COO)
Telephone	*1 438 897-8001*
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1.4 Other Entities Involved in the Project

There are no other entities involved in the project.

1.5 Project Start Date

The project starting date is January 1st, 2010.

1.6 Project Crediting Period

The project crediting period is 10 years. The first crediting period was from January 1st, 2010, to December 31st, 2019. The project was renewed and validated by VCS on May 24, 2021, for a second 10-year crediting period from January 1st, 2020, to December 31st, 2029.

1.7 Project Location

All ICI's Clients Facilities included in the 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 for the different Client Facilities.

The map shown below represents the Province of Quebec and its territory. The province shares more than 12,000 km of land, rivers, and marine borders with Ontario, Nunavut, Newfoundland and Labrador, Prince Edward Island, New Brunswick, Nova Scotia, and the United States. The 11 geodesic coordinates of the map represent the limit of the polygon covering the territory of the Province of Quebec. Each of the 83 Client Facilities declared in this Monitoring Report, with 62 that have provided their data, which supports 752 PAI, are all located inside this polygon. A separate KML file has been provided to demonstrate all Client Facilities and their PAIs are situated within the polygon.

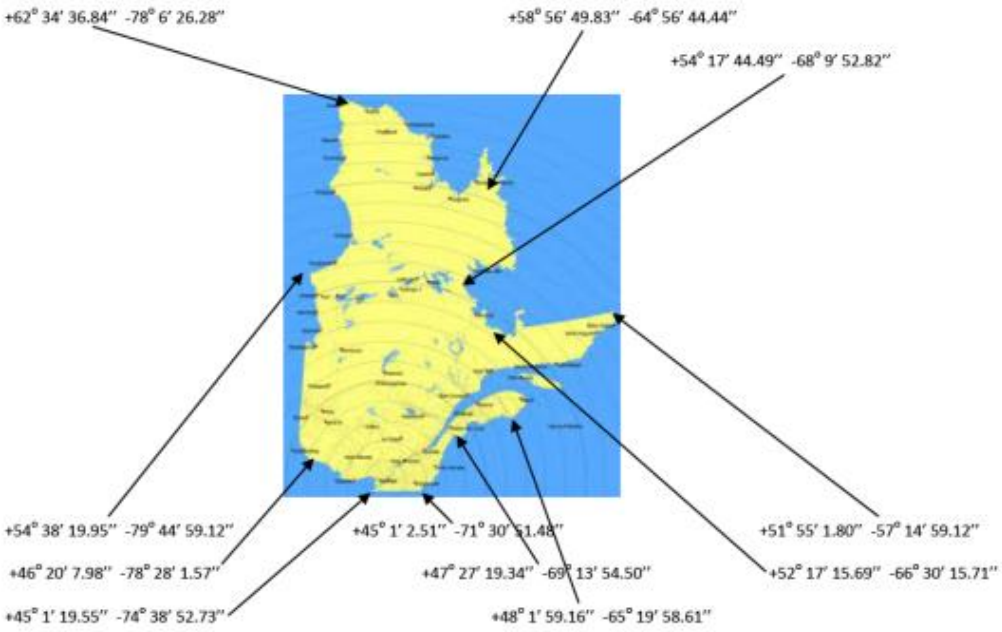


Figure 1 Geodesic coordinates of the polygon covering the Province of Quebec territory.

1.8 Title and Reference of Methodology

The title of the selected methodology is *Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community (Version 1.0)*; it is referenced as VM0018. This methodology was developed by Will Solutions Inc. under the VCS program and was certified and released in February 2012.

1.9 Participation under other GHG Programs

Not applicable. Will Solutions, the project proponent, does not participate in any other GHG program, neither regulated nor voluntary. Will Solutions is only active in the VCS program.

Will Solutions, does not participate to the Quebec regulated market, named the SPEDE[1], and neither to the WCI. The double counting concerns of the VCS Program have been addressed in the previous five Monitoring Reports regarding the Quebec's Cap-and-Trade System for GHG allowances, named the SPEDE. Further information on how the project proponent avoids double counting risks with the SPEDE can be found in Appendix A-1.Other Forms of Credit and Supply Chain (Scope 3) Emissions

Emission Trading Programs and Other Binding Limits: 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 A-1.

Other Forms of Environmental Credit: During the 2020-2021 period, the project proponent, Will Solutions, did not receive other forms of environmental credit.

Supply Chain (Scope 3) Emissions: The project proponent took a conservative approach by excluding all grid electricity producers and distributors from all PAIs of this Monitoring report, for the period of January 1st, 2020, to December 31st, 2021. Further information on how the project proponent avoids double counting risks with scope 3 can be found in Appendix A-2.

1.10 Sustainable Development Contributions

The Sustainable Community (SC) solution developed by Will Solutions, boosts and rewards active and inclusive participation in the circular economy as well as the positive economy. The SC solution is primarily focused on reducing the "Demand side". The monetization on the voluntary carbon market of conscious efforts to reduce energy consumption and virgin resources confirms the close relationship between Development, Environment and Humanity.

WILL has monitored the positive impacts on the Sustainable Development Goals (SDGs) 9, 10, 11, 12, 13 and 17 as part of our collective project Sustainable Community of Quebec. Their description is listed and detailed in Table 1 below, and evidence of the project's SD contributions are provided in Appendix E.

[1] Web governmental reference to the SPEDE http://www.mddelcc.gouv.qc.ca/changements/carbone/documents-spede/in-brief.pdf

Table 2: 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	The contributions during this monitoring period includes: • 2 M CAD$ paid up to December 2021 to Sustainable Community SMEs to implement GHG reduction projects. • 752 GHG micro-projects (project activity instances) realized by over 150 SMEs with most located in remote area on 13 of the 17 administrative regions of Quebec.	The lifetime contributions of this project are: • 2 M CAD$ paid up to December 2022 to Sustainable Community SMEs to implement GHG reduction projects. • 8.96% of Quebec's population (near 800,000 people), associated to innovative projects through their organizations (SME, municipalities, and NGOs). • Over 800 GHG micro-projects (project activity instances) realized by over 150 SMEs with most located in remote areas, on 13 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	8.96% 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	The contributions during this monitoring period includes: 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.	The lifetime contributions of this project include: 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)	12.2	Increase efficient use of natural resources.	Implemented activities to increase	The contributions during this monitoring period includes: 14% of Quebec's municipalities (160 municipal organisations over 1,130 Quebec municipalities), located mainly in remote areas, have participated to this group project to pass in their business community the virtuous approaches.	The contributions during this monitoring period includes: 14% of Quebec's municipalities (160 municipal organisations over 1,130 Quebec municipalities), located mainly in remote areas, have participated to this group project.
5)	13.0	Number of tCO_2e of greenhouse gas emissions (GHG) avoided and reduced.	Implemented activities to increase	The contributions during this monitoring period includes: • 1,67 million tCO_2e of greenhouse gas emissions (GHG) avoided and/or reduced.	The lifetime contributions include: • 1,67 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	The contributions during this monitoring period includes: • 14 NGOs directly associated to the Sustainability movement.	The lifetime contributions include: • 14 NGOs directly associated to the Sustainability movement. • 332 meetings/conferences to convince partners to adhere to the Sustainable Community.

2 SAFEGUARDS

2.1 No Net Harm

Will Solutions Inc. (WILL) as project proponent, is not in charge of doing or realizing any physical sustainable project activity instances (PAI) on behalf of its members. On the contrary, WILL is mutualizing all the eligible GHG reduction efforts completed by each member of the Sustainable Community (SC) project with the objective to convert them into VCU, sale them and return a minimum of 45% of the gross sales to each member, proportional to their GHG reduction efforts. WILL is mutualizing the expertise and the monetization's costs to democratize the participation of all stakeholders of the civil society to tackle the climate issue.

WILL screens every PAI of all new SC members to ensure they comply with environmental regulations. With grouping all eligible PAI, which are mainly located in remote areas, the SC project creates strong and beneficial socio-economic impacts by rewarding economically SME and municipality projects directly that are focused on Sustainable Development, and that are well aligned with the 17 Sustainable Development Goal (SDG) of the United Nations. In November 2022, VERRA validated and published on their registry the first SD report of Will Solutions, which covered the period of January 1st, 2016 to December 31st, 2018. WILL intends to submit another SD report for the period ending on December 31st, 2019.

WILL Solutions is certified B Corp since March 2019[2]. In 2018, WILL implemented a sustainability plan and has since produced an annual report with the objective of continuously improving its environmental footprint. The latest report was published in June 2022 and includes the carbon footprint of all corporate activities since 2007[3]. Since 2007, WILL has purchased carbon credits to offset its emissions. In addition, WILL is an active member since February 2020 of the Net Zero 2030[4] movement which brings together more than 1,000 B Corp organizations.

2.2 Local Stakeholder Consultation

No comments from local stakeholders were received for this monitoring period. The project has all local and regional stakeholders support required by the Project as mentioned in the Project Document already validated. Furthermore, WILL continues to receive community support from NGOs, such as the Reseau SADC and *Fondation Trois-Rivière Durable*, which aim to facilitate the microfinancing (with sustainability consideration) of SMEs and municipalities in remote areas and recruiting their customers (more than 10,000 SMEs and municipalities), as new members of the Sustainable Community project.

[2] B Corp link https://bcorporation.net/directory/solutions-will
[3] Link to the latest version released in June 2022
https://www.solutionswill.com/2022/SustainableDevGoalsReport_June2022.pdf
[4] https://www.bcorpclimatecollective.org/net-zero-2030

Directly knowing their customer and their sustainable projects (on energy consumption and waste diversion), they facilitate the recruitment of new members to the Sustainable Community project with a particular focus on those who are eager to act now on sustainable development.

Many post are available on SME impact and on the LinkedIn account of the project proponent: www.linkedin.com/company/will-solutions

Methods used for engaging local stakeholders

WILL as the project proponent maintain throughout the monitoring period ongoing and regular communication with project stakeholders such as social development partners, collaborators, governments, members (Client Facilities) and VCU buyers. 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 inputs or concerns over the project through email correspondence or phone calls. In its latest sustainability report[5] published in June 2021, WILL reported that it has produced more than 90 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.

Methods used for documenting the outcomes of the local stakeholder communication

The quantification manager and the sales manager are responsible for collecting and addressing the inputs and concerns, when applicable.

The mechanism for on-going communication with local stakeholders

Stakeholders can provide at any time their inputs or concerns over this grouped project through email correspondence or phone calls. The quantification manager and the sales manager are responsible for collecting and addressing the inputs and concerns.

How due account of any input received during ongoing communication is taken

No comments, inputs, 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.

2.3 AFOLU-Specific Safeguards

Not applicable since this is not an AFOLU project.

[7] Latest Sustainability report https://www.solutionswill.com/uploads/2019/12/SD-Plan-Update-2019.pdf

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The project activity is in operation during this 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. PAIs that did not provide evidence are excluded from this report and are identified (in dark red) in the Annexure B-C. PAIs included in this monitoring report do not have positive emissions, and this can be verified in the Annexure B-C as well as individual data sheet.

The table below presents clearly how many Client Facilities and PAIs are considered, excluded, and added during this monitoring period per vintage:

	2020		2021	
	Client Facilities	PAI	Client Facilities	PAI
Considered during this monitoring period	62	752	55	689
Excluded from this monitoring period	21	66	28	129
Added during this monitoring period	0	0	0	0
Total	83	818	83	818

The reasons attributed to excluded Client Facilities and PAIs are specified in the Annexure B-C.

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

There are no deviations to the Project Description (PD) in this Monitoring Report.

3.3 Grouped Projects

As an eligibility criterion, each individual PAI must be associated with a relevant Generic PAI. The project proponent has established a list of 9 Generic PAI, as listed in Table 3, that allow for the additionality analysis of new PAIs.

Table 3: Generic PAI Reference Number

	Generic PAI (no new Generic PAI on this 6th Monitoring Report)	Generic PAI - Energy Efficiency (EE) – Sectoral Scope 3	Generic PAI - Waste Management (WM) – 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	Fuel Switching	√	
IX	Energy Conservation	√	
X	Energy Efficiency – Demand Side from New Building or Major Renovation	√	
	Total:	7	2

The 9 generic PAIs have processes/outcomes which go beyond business-as-usual (BAU) practices and are defined as more efficient when compared to common practices. On this basis, and in accordance with the guidelines from the CDM's *Combined tool to identify the Baseline Scenario and Demonstrate Additionality* (Version 5.0.0.) – as requested by the VM0018 – the VVB has validated the additionality of each Generic PAI in the first monitoring report of February 2014. The Generic PAIs were revalidated by the VVB and the VCS program in the renewal of our project document on May 24, 2021. The group project (cluster) is additional and is still a first-of-its-kind, around the world, and on the other hand, any new PAI added in the Sustainable Community group project are recognized as additional as they must be associated with a generic PAI as an eligibility criterion.

It is noteworthy that, without the cost sharing and the Business model of the project proponent, it would be impossible for the grouped Client Facilities to submit any of their eligible GHG emission reductions to the voluntary market. It is simply not affordable for individual Client facilities and for each of their different PAI.

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

All monitored data 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 technical data sheet (quantification sheet) was used, and the reductions quantifications (baseline and project emission reductions) were agglomerated. For further details on each Client Facility quantification sheets, see Appendix B. Each PAI (Table 3) associated to a generic PAI is monitored and available at validation as described in the tables below.

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) required and used to the calculation of this item are described for each generic project activity instance of this project. These EF are taking account of the CH_4, N_2O and CO_2 emissions. All values applied and used for the calculations are described for each generic project activity instance in the Appendix D.2.
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	-

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) required and used to the calculation of this item are described for each generic project activity instance of this project. These EF are taking account of the CH_4, N_2O and CO_2 emissions. All values applied and used for to the calculations are described for each generic project activity instance in the Appendix D.2.
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	-

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 source of thermal energy 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) required and used to the calculation of this item are described for each generic project activity instance of this project. These EF are taking account of the CH_4, N_2O and CO_2 emissions. All values applied and used for to the calculations are described for each generic project activity instance in the Appendix D.2.
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	-

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 source of thermal energy 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) required and used to the calculation of this item are described for each generic project activity instance of this project. These EF are taking account of the CH_4, N_2O and CO_2 emissions. All values applied and used for to the calculations are described for each generic project activity instance in the Appendix D.2.
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	-

Data / Parameter	OX
Data unit	-
Description	Oxidation factor (reflecting the amount of soil or other material covering the waste)
Source of data	This factor is 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).
Value applied	All emission factors (EF) required and used to the calculation of this item are described for each generic project activity instance of this project. These EF are taking account of the CH_4, N_2O and CO_2 emissions. All values applied and used for to the calculations are described for each generic project activity instance in the Appendix D.2.
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	-

Data / Parameter	DOC_1
Data unit	-
Description	Fraction of degradable organic carbon (DOC) that can decompose
Source of data	This factor is 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).
Value applied	All emission factors (EF) required and used to the calculation of this item are described inside for each generic project activity instance of this project. These EF are taking account of the CH_4, N_2O and CO_2 emissions.

	All values applied and used for to the calculations are described for each generic project activity instance in the Appendix D.2.
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	-

Data / Parameter	DOCj
Data unit	-
Description	Fraction of degradable organic carbon (by weight)
Source of data	This factor is 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).
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	-

Data / Parameter	MCF
Data unit	-
Description	Methane correction factor
Source of data	This factor is 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).

Value applied	All emission factors (EF) required and used to the calculation of this item are described for each generic project activity instance of this project. These EF are taking account of the CH_4, N_2O and CO_2 emissions. All values applied and used for to the calculations are described for each generic project activity instance in the Appendix D.2.
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	-

Data / Parameter	k_j
Data unit	-
Description	Decay rate for the waste type j
Source of data	IPCC 2006 Guidelines for National Greenhouse Gas Inventories (adapted from Volume 5, Table 3.3)
Value applied	All emission factors (EF) required and used to the calculation of this item are described for each generic project activity instance of this project. These EF are taking account of the CH_4, N_2O and CO_2 emissions. All values applied and used for to the calculations are described for each generic project activity instance in the Appendix D.2.
Purpose of Data	The MCF factor is used for: • The Calculation of baseline emissions • The Calculation of project emissions
Comments	-

4.2 Data and Parameters Monitored

All monitored data 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 technical data sheet (quantification sheet) was used. For further details on each Client Facility quantification sheets, see Appendix 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.
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	-

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.
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	-

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.
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	-

4.3 Monitoring Plan

The monitoring plan applied to all Project Units is the same as described in the five previous monitoring reports which is in accordance with the VM0018 methodological requirements. All five 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 D.3.

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. 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 D.3.

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

3. Data Management System

To keep safely all documents and records collected during the monitoring, the record keeping practices 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.

4. 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.

5. 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.

6. 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
62	328	424	752

		Scope 3 PAIs	Scope 13 PAIs	Total PAIs
Total PAI to be audited (sample)	$\sqrt{n}$	19	21	40

The project proponent has provided a more detailed procedure for determining the selected sample to be taken by the VVB in the Annexure B-C, worksheet "Sample for Verification."

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 4 below shows the calculation for baseline emissions for each Client Facility and their PAIs. In addition, for this sixth monitoring report, each Client Facility (members) of the Sustainable Community project have an individual spreadsheet for the detailed quantification of their eligible PAIs which is available as an Annexure upon request (see Appendix B for further details). Relevant information to complement these calculations is available, when applicable, in the individual spreadsheets.

Client Facilities that did not provide evidence for their PAIs for this monitoring period are excluded from this report and are identified in dark red in Table 4 and 5.

Table 4: Quantification of baseline emissions of 2020 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	139,064.85	×	0.002735	=	380.31	380
Client Facility 0108	1	19,283.60	×	0.002735	=	52.74	72
	1	6,996.40	×	0.00279	=	19.52	
Client Facility 0301	1	0.00	×	0.002735	=	0.00	0

Client Facility 0302	1	37,586.31	×	0.002735	=	102.80	268
	1	8,911.80	×	0.002790	=	24.86	
	1	37,586.31	×	0.002735	=	102.79	
	1	5,037.22	×	0.002735	=	13.78	
	1	1.79	×	3.65864	=	6.55	
	1	10.1	×	1.78524	=	18.03	
Client Facility 0303	0	-	×	-	=	-	-
Client Facility 0305	1	262,106.71	×	0.002735	=	716.79	716
Client Facility 0306	34	600,761.55	×	0.002735	=	1642.92	1,642
Client Facility 0307	1	14,330.57	×	0.001544	=	22.13	22
Client Facility 0308	1	14,064.00	×	0.002735	=	38.46	58
	1	7,145.80	×	0.002735	=	19.54	
Client Facility 0309	1	4,802.09	×	0.002735	=	13.13	251
	2	349.33	×	0.683240	=	238.67	
Client Facility 0403	1	176,335.00	×	0.001544	=	272.26	380
	1	159.36	×	0.683240	=	108.88	
Client Facility 0404	1	32,113.68	×	0.002735	=	87.82	1,385
	1	24,915.13	×	0.002735	=	68.14	
	1	22,862.81	×	0.002735	=	62.52	
	1	113,126.77	×	0.002735	=	309.37	
	1	130,577.38	×	0.002735	=	357.09	
	1	12,344.54	×	0.002735	=	33.76	
	1	26,452.24	×	0.002735	=	72.34	
	1	24,213.04	×	0.002735	=	66.22	
	1	15,286.21	×	0.002735	=	41.80	
	1	34,130.81	×	0.002735	=	93.34	
	1	24,673.14	×	0.002735	=	67.47	
	1	15,948.61	×	0.002735	=	43.62	
	1	20,943.68	×	0.002735	=	57.28	
	1	9,083.22	×	0.002735	=	24.84	
Client Facility 0502	1	232,692.00	×	0.002734736	=	636.35	636
Client Facility 0503	0	-	×	-	=	-	
Client Facility 0504	1	27,440.60	×	0.002735	=	75.04	2,494
	1	9,941.90	×	0.002735	=	27.19	
	1	4,112.74	×	0.002735	=	11.25	
	1	108,168.31	×	0.002735	=	295.81	
	1	490.79	×	3.934140	=	1930.84	
	1	0	×	0.683240	=	0.00	
	1	226.26	×	0.683240	=	154.59	
Client Facility 0507	1	13,437.14	×	0.002735	=	36.75	1,322

	3	428.04	×	1.78524	=	764.15	
	16	764.04	×	0.68324	=	522.02	
Client Facility 0508	1	19,211.00	×	0.002735	=	52.54	165
	1	5,734.00	×	0.002735	=	15.68	
	1	8,634.00	×	0.002735	=	23.61	
	1	8,647.00	×	0.002735	=	23.65	
	1	7,643.00	×	0.002735	=	20.90	
	1	10,528.00	×	0.002735	=	28.79	
Client Facility 0512	1	181.26	×	3.93414	=	713.10	713
Client Facility 0601	9	1,468,869.63	×	0.001889	=	2774.69	14,291
	1	17,495.00	×	0.001544	=	27.01	
	1	6,436.00	×	1.785240	=	11489.80	
Client Facility 0602	1	6,301.09	×	0.002735	=	17.23	1,515
		142,839.91	×	0.001889	=	269.87	
	1	19478.17	×	0.001889	=	36.80	
	1	630,706.23	×	0.001889	=	1191.61	
Client Facility 0603	0	-	×	-	=	-	-
Client Facility 0604	1	4,374.40	×	2.48683	=	10878.39	18,375
	1	1,275,370.60	×	0.001889	=	2409.58	
	1	43,331.62	×	0.001889	=	81.87	
	1	392,080.91	×	0.001889	=	740.77	
	1	128,676.98	×	0.002735	=	351.90	
	1	1,244.62	×	2.48683	=	3095.16	
		529,479.61	×	0.001544	=	817.51	
Client Facility 0605	1	157,921.90	×	0.002735	=	431.87	963
	1	89,469.42	×	0.002361	=	211.26	
		114,793.37	×	0.002790	=	320.25	
Client Facility 0701	1	3,984.20	×	0.001889	=	7.53	7
Client Facility 0702	1	52,052.70	×	0.001544	=	80.37	353
		70,140.00	×	0.000036	=	2.52	
		53,207.74	×	0.001544	=	82.15	
	1	121,903.11	×	0.001544	=	188.22	
Client Facility 0703	0	-	×	-	=	-	-
Client Facility 0704	1	20,549.00	×	0.002735	=	56.20	56
Client Facility 0705	0	-	×	-	=	-	-
Client Facility 0706	1	1,124,678.07	×	0.001764	=	1,983.91	12,111
		23,608.62	×	0.001544	=	36.45	
	1	267,690.73	×	0.001764	=	472.20	
		5,619.22	×	0.001544	=	8.68	
	1	331,648.98	×	0.001764	=	585.02	

		130,941.05	×	0.001544	=	202.17	
	1	2,592,307.52	×	0.001764	=	4,572.79	
		54,416.29	×	0.001544	=	84.02	
	1	484,100.27	×	0.001764	=	853.95	
		10,161.97	×	0.001544	=	15.69	
	1	245,553.29	×	0.001764	=	433.15	
		5,154.52	×	0.001544	=	7.96	
	1	1,191,847.14	×	0.001764	=	2,102.40	
		25,018.60	×	0.001544	=	38.63	
	1	31,900.00	×	0.02240	=	714.56	
Client Facility 0707	4	16,353.15	×	2.08494	=	34,095.34	56,615
	4	10,029.03	×	2.08494	=	20,909.93	
	4	535.79	×	0.68324	=	366.07	
	4	1448.52	×	0.68324	=	989.69	
	4	59.53	×	2.08494	=	124.12	
	4	62.73	×	2.08494	=	130.79	
	24	-	×	-	=	-	
Client Facility 0709	0	-	×	-	=	-	-
Client Facility 0710	1	1,012,674.00	×	0.00315	=	3186.24	70,215
	1	3.57	×	3.93414	=	14.04	
	85	34,950.00	×	1.91748	=	67015.93	
Client Facility 0711	0	-	×	-	=	-	-
Client Facility 0712	1	0	×	3.99	=	0.00	191.00
	1	0	×	3.23957	=	0.00	
	1	52.3	×	3.65864	=	191.35	
Client Facility 0713	0	-	×	-	=	-	-
Client Facility 0714	0	-	×	-	=	-	-
Client Facility 0801	0	-	×	-	=	-	-
Client Facility 0802	1	249,909.79	×	0.001544	=	385.86	385
Client Facility 0803	0	-	×	-	=	-	
Client Facility 0804	1	3,339,215.70	×	0.000002	=	6.81	78
		2,843.30	×	0.001889	=	5.37	
		335.28	×	0.002735	=	0.92	
	1	168,402.00	×	0.000002	=	0.34	
		27,677.46	×	0.001889	=	52.28	
		4,650.42	×	0.002735	=	12.72	
Client Facility 0805	14	31,685.58	×	1.78524	=	56,566.36	56,566
Client Facility 0806	39	856	×	0.68324	=	584.85	584
Client Facility 0808	15	26,694.00	×	1.78524	=	47655.20	47,655
Client Facility 0901	1	1,770.60	×	0.68324	=	1209.74	6,828

	1	1,128.63	×	3.93414	=	4,440.19	
	1	565.16	×	2.08494	=	1,178.32	
Client Facility 0902	0	-	×	-	=	-	-
Client Facility 0903	0	-	×	-	=	-	-
Client Facility 0905	0	-	×	-	=	-	-
Client Facility 0910	1	21,789.47	×	0.002790	=	60.79	
	5	8,935.09	×	1.78524	=	15951.28	16,421
	1	112.1	×	3.65864	=	410.13	
Client Facility 1001	0	-	×	-	=	-	-
Client Facility 1005	5	8,214,839.98	×	0.001544	=	12,683.58	
		383,895.00	×	0.001889	=	725.30	22,046
	2	5,594,658.24	×	0.001544	=	8,638.06	
Client Facility 1008	1	114,626.96	×	0.000002	=	0.23	
		12,855.32	×	0.001544	=	19.85	24
		1,442.86	×	0.002735	=	3.95	
Client Facility 1011	1	47610	×	0.001889	=	89.95	
		2142304	×	0.000002	=	4.37	
	1	0	×	0.001889	=	0.00	
		0	×	0.000002	=	0.00	
	1	204,218.00	×	0.001889	=	385.83	
		1,206,900.00	×	0.000002	=	2.46	
	1	0.00	×	0.001889	=	0.00	
		0.00	×	0.000002	=	0.00	
	1	44,763.00	×	0.001889	=	84.57	1,167
		219,126.00	×	0.000002	=	0.45	
	1	133,946.00	×	0.001889	=	253.07	
		830,400.00	×	0.000002	=	1.69	
	1	0	×	0.001889	=	0.00	
		0	×	0.000002	=	0.00	
	1	142,212.00	×	0.001889	=	268.68	
		1,419,360.00	×	0.000002	=	2.90	
	1	38,742.00	×	0.001889	=	73.20	
		126,720.00	×	0.000002	=	0.26	
Client Facility 1101	10	61,000.00	×	0.002735	=	166.82	
	10	1,591,292.95	×	0.002422	=	3854.68	
		152,148.00	×	0.002735	=	416.08	10,111
		66,099.00	×	0.001544	=	102.06	
	3	3,121.16	×	1.78524	=	5572.02	
Client Facility 1102	1	51,182.00	×	0.002735	=	139.97	139
Client Facility 1103	12	399.74	×	2.08494	=	833.43	19,743

	12	2,781.70	×	1.78524	=	4966.00	
	12	3,797.28	×	0.68324	=	2594.45	
	12	2,884.81	×	3.93414	=	11349.24	
Client Facility 1108	1	679.71	×	1.78524	=	1213.45	9,026
	1	352.22	×	0.68324	=	240.65	
	1	1,924.90	×	3.93414	=	7572.83	
Client Facility 1201	1	46,969.40	×	0.002735	=	128.45	128
Client Facility 1204	1	7,779.00	×	0.002735	=	21.27	21
Client Facility 1205	1	0.00	×	0.002735	=	0.00	0
Client Facility 1206	0	-	×	-	=	-	-
Client Facility 1207	1	592.79	×	1.78524	=	1058.27	7,447
	1	1,317.38	×	0.68324	=	900.09	
	1	1,395.24	×	3.93414	=	5489.07	
Client Facility 1208	1	60,211.00	×	0.002735	=	164.66	166
		703,200.00	×	0.000002	=	1.43	
Client Facility 1209	1	5,096.00	×	0.002735	=	13.94	13
Client Facility 1210	18	344,638.75	×	0.002422	=	834.84	834
Client Facility 1302	1	318.44	×	3.93414	=	1252.79	1,356
	1	151.76	×	0.68324	=	103.69	
Client Facility 1303	1	29,455.00	×	0.002735	=	80.55	80
Client Facility 1304	0	-	×	-	=	-	-
Client Facility 1305	1	5700.13	×	0.002735	=	15.59	15
Client Facility 1308	1	12.00	×	0.683240	=	8.20	21
	1	7.00	×	1.917480	=	13.42	
Client Facility 1309	1	3,190.20	×	0.001544	=	4.93	26
	1	1.46	×	3.658640	=	5.33	
	1	4.59	×	1.046900	=	4.80	
	1	3.38	×	3.658640	=	12.37	
Client Facility 1312	33	2,507.23	×	2.08494	=	5,227.42	5,227
Client Facility 1314	10	2,586,140.26	×	0.002735	=	7,072.41	77,407
	5	5,367,402.39	×	0.002735	=	14,678.43	
	5	2,715,722.81	×	0.002735	=	7,426.78	
	15	27,016.00	×	1.78524	=	48,230.04	
Client Facility 1330	0	-	×	-	=	-	-
	0	-	×	-	=	-	
Client Facility 1401	1	4.6	×	3.65864	=	16.83	16
Client Facility 1403	0	-	×	-	=	-	-
Client Facility 1404	0	-	×	-	=	-	-
Client Facility 1601	1	1,174,626.05	×	0.001764	=	2,072.02	192,953
		30,187.25	×	0.001544	=	46.61	

	1	1,174,626.05	×	0.001764	=	2,072.02	
		30,187.25	×	0.001544	=	46.61	
	1	1,174,626.05	×	0.001764	=	2,072.02	
		30,187.25	×	0.001544	=	46.61	
	1	3,707,679.32	×	0.001764	=	6,540.29	
	3	21,823.00	×	1.91748	=	41,845.17	
	50	72,080.00	×	1.91748	=	138,211.96	
Client Facility 1602	3	51,687.00	×	0.001544	=	79.80	102
		5,101.00		0.002735		13.95	
		3,095.00		0.002735		8.46	
Client Facility 1603	1	13,694.00	×	0.001889	=	25.87	4,872
		479,000.00	×	0.000002	=	0.98	
	1	1,913.87	×	1.78524	=	3416.72	
	1	1,365.65	×	1.04690	=	1429.70	
Client Facility 1604	0	-	×	-	=	-	-
Client Facility 1605	5	3,126.14	×	0.003518	=	11.00	4,263
	5	2,724.83	×	1.560728	=	4252.72	
	5	0	×	0	=	0.00	
Client Facility 0002	76	26,861,793.76	×	0.001544	=	41474.18	109,371
	12	35,410.00	×	1.91748	=	67897.97	
Client Facility 0003	34	1,606,662.00	×	0.0451	=	72460.46	72,460
Total:	**752**						**852,747**

BEy values have been rounded down for conservativeness.

The baseline emissions BEy = 852,747 tCO_2e

Table 5: Quantification of baseline emissions of 2021 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	96,171.57	×	0.002735	=	263.00	263
Client Facility 0108	1	19,283.60	×	0.002735	=	52.74	72
	1	6,996.40	×	0.002790	=	19.52	
Client Facility 0301	1	121,556.40	×	0.002735	=	332.46	332
Client Facility 0302	1	29,094.79	×	0.002735	=	79.57	230
	1	6,966.00	×	0.002790	=	19.44	
	1	29,094.79	×	0.002735	=	79.57	
	1	6,394.14	×	0.002735	=	17.49	

	1	3.2	×	3.65864	=	11.71	
	1	12.82	×	1.78524	=	22.89	
Client Facility 0303	0	-	×	-	=	-	-
Client Facility 0305	1	262,106.71	×	0.002735	=	716.79	716
Client Facility 0306	0	0.00	×	0.002735	=	0.00	0
Client Facility 0307	1	14,403.49	×	0.001544	=	22.24	22
Client Facility 0308	1	14,064.00	×	0.002735	=	38.46	38
Client Facility 0309	0	0.00	×	0.002735	=	0.00	222
	2	325.58	×	0.683240	=	222.45	
Client Facility 0403	1	176,335.00	×	0.001544	=	272.26	363
	1	134.47	×	0.683240	=	91.88	
Client Facility 0404	1	32,113.68	×	0.002735	=	87.82	1,385
	1	24,915.13	×	0.002735	=	68.14	
	1	22,862.81	×	0.002735	=	62.52	
	1	113,126.77	×	0.002735	=	309.37	
	1	130,577.38	×	0.002735	=	357.09	
	1	12,344.54	×	0.002735	=	33.76	
	1	26,452.24	×	0.002735	=	72.34	
	1	24,213.04	×	0.002735	=	66.22	
	1	15,286.21	×	0.002735	=	41.80	
	1	34,130.81	×	0.002735	=	93.34	
	1	24,673.14	×	0.002735	=	67.47	
	1	15,948.61	×	0.002735	=	43.62	
	1	20,943.68	×	0.002735	=	57.28	
	1	9,083.22	×	0.002735	=	24.84	
Client Facility 0502	1	232,692.00	×	0.002735	=	636.35	636
Client Facility 0503	0	-	×	-	=	-	
Client Facility 0504	1	27,440.60	×	0.002735	=	75.04	2,433
	1	9,941.90	×	0.002735	=	27.19	
	1	4,112.74	×	0.002735	=	11.25	
	1	100,425.97	×	0.002735	=	274.64	
	1	480.81	×	3.934140	=	1891.57	
	1	0	×	0.683240	=	0.00	
	1	225.04	×	0.683240	=	153.76	
Client Facility 0507	1	13,437.14	×	0.002735	=	36.75	1,062
	3	319.56	×	1.78524	=	570.49	
	16	667.15	×	0.68324	=	455.82	
Client Facility 0508	0	0.00	×	0.002735	=	0.00	0
	0	0.00	×	0.002735	=	0.00	
	0	0.00	×	0.002735	=	0.00	

	0	0.00	×	0.002735	=	0.00	
	0	0.00	×	0.002735	=	0.00	
	0	0.00	×	0.002735	=	0.00	
Client Facility 0512	1	203.43	×	3.93414	=	800.32	800
Client Facility 0601	9	1,472,688.71	×	0.001889	=	2781.91	15,873
	1	17,495.00	×	0.001544	=	27.01	
	1	7,318.00	×	1.785240	=	13064.39	
Client Facility 0602	1	6,301.09	×	0.002735	=	17.23	1,709
		165,032.84	×	0.001889	=	311.80	
	1	18336.98	×	0.001889	=	34.64	
	1	712,505.25	×	0.001889	=	1346.15	
Client Facility 0603	0	-	×	-	=	-	-
Client Facility 0604	1	4,379.49	×	2.48683	=	10891.05	18,850
	1	1,276,854.26	×	0.001889	=	2412.39	
	1	43,382.03	×	0.001889	=	81.96	
	1	392,537.02	×	0.001889	=	741.63	
	1	134,639.62	×	0.002735	=	368.20	
	1	1,407.33	×	2.48683	=	3499.79	
		554,014.64	×	0.001544	=	855.39	
Client Facility 0605	1	157,921.90	×	0.002735	=	431.87	963
	1	89,469.42	×	0.002361	=	211.26	
		114,793.37	×	0.002790	=	320.25	
Client Facility 0701	1	3,984.20	×	0.001889	=	7.53	7
Client Facility 0702	1	41,900.00	×	0.001544	=	64.69	464
		50,100.00	×	0.000036	=	1.80	
		38,005.53	×	0.001544	=	58.68	
	1	219,780.74	×	0.001544	=	339.34	
Client Facility 0703	0	-	×	-	=	-	-
Client Facility 0704	1	20,549.00	×	0.002735	=	56.20	56
Client Facility 0705	0		×	-	=	-	-
Client Facility 0706	1	1,321,606.42	×	0.001764	=	2,331.29	10,819
		27,742.43	×	0.001544	=	42.83	
	1	909,848.06	×	0.001764	=	1,604.96	
		19,099.03	×	0.001544	=	29.49	
	1	727,528.89	×	0.001764	=	1,283.35	
		15,271.88	×	0.001544	=	23.58	
	1	378,353.23	×	0.001764	=	667.41	
		7,942.18	×	0.001544	=	12.26	
	1	357,118.38	×	0.001764	=	629.95	
		7,496.43	×	0.001544	=	11.57	

	1	340,834.16	×	0.001764	=	601.23	
		7,154.60	×	0.001544	=	11.05	
	1	1,566,749.32	×	0.001764	=	2,763.72	
		32,888.34	×	0.001544	=	50.78	
	1	33,779.00	×	0.02240	=	756.65	
Client Facility 0707	4	2,160.94	×	2.08494	=	4,505.43	57,421
	4	20,330.50	×	2.08494	=	42,387.87	
	4	658.51	×	0.68324	=	449.92	
	4	14605.3	×	0.68324	=	9,978.93	
	4	47.88	×	2.08494	=	99.83	
	4	0	×	2.08494	=	0.00	
	24	-	×	-	=	-	
Client Facility 0709	0	-	×	-	=	-	-
Client Facility 0710	1	1,012,674.00	×	0.00315	=	3186.24	89,289
	1	4.5	×	3.93414	=	17.70	
	85	44,895.50	×	1.91748	=	86086.22	
Client Facility 0711	0	-	×	-	=	-	-
Client Facility 0712	0	0	×	3.99	=	0.00	0
	0	0	×	3.23957	=	0.00	
	0	0	×	3.65864	=	0.00	
Client Facility 0713	0	-	×	-	=	-	-
Client Facility 0714	0	-	×	-	=	-	-
Client Facility 0801	0	-	×	-	=	-	-
Client Facility 0802	1	292,771.54	×	0.001544	=	452.03	452
Client Facility 0803	0	-	×	-	=	-	
Client Facility 0804	1	3,339,215.70	×	0.000002	=	6.81	78
		2,843.30	×	0.001889	=	5.37	
		335.28	×	0.002735	=	0.92	
	1	168,402.00	×	0.000002	=	0.34	
		27,677.46	×	0.001889	=	52.28	
		4,650.42	×	0.002735	=	12.72	
Client Facility 0805	14	33,072.00	×	1.78524	=	59,041.46	59,041
Client Facility 0806	39	1034.1	×	0.68324	=	706.54	706
Client Facility 0808	15	35,889.00	×	1.78524	=	64070.48	64,070
Client Facility 0901	1	1,955.54	×	0.68324	=	1336.10	6,416
	1	1,117.50	×	3.93414	=	4,396.40	
	1	328.02	×	2.08494	=	683.90	
Client Facility 0902	0	-	×	-	=	-	-
Client Facility 0903	0	-	×	-	=	-	-
Client Facility 0905	0	-	×	-	=	-	-

Client Facility 0910	0	0.00	×	0.002790	=	0.00	0
	0	0.00	×	1.78524	=	0.00	
	0	0	×	3.65864	=	0.00	
Client Facility 1001	0		×	-	=	-	-
Client Facility 1005	5	8,214,839.98	×	0.001544	=	12,683.58	22,046
		383,895.00	×	0.001889	=	725.30	
	2	5,594,658.24	×	0.001544	=	8,638.06	
Client Facility 1008	1	114,626.96	×	0.000002	=	0.23	24
		12,855.32	×	0.001544	=	19.85	
		1,442.86	×	0.002735	=	3.95	
Client Facility 1011	0	0	×	0.001889	=	0.00	0
		0	×	0.000002	=	0.00	
Client Facility 1101	10	100,652.77	×	0.002735	=	275.26	9,472
	10	1,591,292.95	×	0.002422	=	3854.68	
		152,148.00	×	0.002735	=	416.08	
		143,185.00	×	0.001544	=	221.08	
	3	2,635.50	×	1.78524	=	4705.00	
Client Facility 1102	1	51,182.00	×	0.002735	=	139.97	139
Client Facility 1103	12	387.31	×	2.08494	=	807.52	19,214
	12	2,324.69	×	1.78524	=	4150.13	
	12	3,718.87	×	0.68324	=	2540.88	
	12	2,978.14	×	3.93414	=	11716.42	
Client Facility 1108	1	4,170.45	×	1.78524	=	7445.25	14,525
	1	258.12	×	0.68324	=	176.36	
	1	1,754.89	×	3.93414	=	6903.98	
Client Facility 1201	1	46,969.40	×	0.002735	=	128.45	128
Client Facility 1204	1	0.00	×	0.002735	=	0.00	0
Client Facility 1205	0	0.00	×	0.002735	=	0.00	0
Client Facility 1206	0	-	×	-	=	-	-
Client Facility 1207	1	490.1	×	1.78524	=	874.95	7,397
	1	1,233.57	×	0.68324	=	842.82	
	1	1,443.63	×	3.93414	=	5679.44	
Client Facility 1208	0	0.00	×	0.002735	=	0.00	0
		0.00	×	0.000002	=	0.00	
Client Facility 1209	1	5,096.00	×	0.002735	=	13.94	13
Client Facility 1210	18	367,614.67	×	0.002422	=	890.50	890
Client Facility 1302	1	284.38	×	3.93414	=	1118.79	1,224
	1	154.11	×	0.68324	=	105.29	
Client Facility 1303	1	29,455.00	×	0.002735	=	80.55	80
Client Facility 1304	0	-	×	-	=	-	-

Client Facility 1305	1	5700.13	×	0.002735	=	15.59	15
Client Facility 1308	1	12.00	×	0.683240	=	8.20	21
	1	7.00	×	1.917480	=	13.42	
Client Facility 1309	1	5,593.90	×	0.001544	=	8.64	31
	1	1.32	×	3.658640	=	4.81	
	1	4.59	×	1.046900	=	4.80	
	1	3.86	×	3.658640	=	14.13	
Client Facility 1312	33	2,480.61	×	2.08494	=	5,171.92	5,171
Client Facility 1314	10	1,733,465.77	×	0.002735	=	4,740.57	66,153
	5	5,961,061.40	×	0.002735	=	16,301.93	
	5	2,501,256.31	×	0.002735	=	6,840.28	
	15	21,438.00	×	1.78524	=	38,271.98	
Client Facility 1330	0	-	×	-	=	-	-
	0	-	×	-	=	-	
Client Facility 1401	1	4.6	×	3.65864	=	16.83	16
Client Facility 1403	0	-	×	-	=	-	-
Client Facility 1404	0	-	×	-	=	-	-
Client Facility 1601	1	1,331,534.79	×	0.001764	=	2,348.81	186,431
		34,219.72	×	0.001544	=	52.83	
	1	1,331,534.79	×	0.001764	=	2,348.81	
		34,219.72	×	0.001544	=	52.83	
	1	1,331,534.79	×	0.001764	=	2,348.81	
		34,219.72	×	0.001544	=	52.83	
	1	4,289,059.92	×	0.001764	=	7,565.83	
	3	21,777.00	×	1.91748	=	41,756.96	
	50	67,747.50	×	1.91748	=	129,904.48	
Client Facility 1602	3	51,687.00	×	0.001544	=	79.80	102
		5,101.00		0.002735		13.95	
		3,095.00		0.002735		8.46	
Client Facility 1603	1	13,694.00	×	0.001889	=	25.87	4,457
		479,000.00	×	0.000002	=	0.98	
	1	1,651.21	×	1.78524	=	2947.81	
	1	1,416.87	×	1.04690	=	1483.32	
Client Facility 1604	0	-	×	-	=	-	-
Client Facility 1605	5	8,503.98	×	0.003518	=	29.92	4,640
	5	2,954.04	×	1.560728	=	4610.45	
	5	0.00	×	0.00	=	0.00	
Client Facility 0002	76	10,558,103.52	×	0.001544	=	16301.54	42,988
	12	13,918.00	×	1.91748	=	26687.49	
Client Facility 0003	34	1,802,233.00	×	0.0451	=	81280.71	81,280

Total:	689		801,245

BEy values have been rounded down for conservativeness.

The baseline emissions BEy = 801,245 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 6 below shows the calculation for project emissions for each Client Facility and their PAIs. In addition, for this sixth monitoring report, each Client Facility (members) of the Sustainable Community project have an individual spreadsheet for the detailed quantification of their eligible PAIs which is available as an Annexure upon request (see Appendix B for further details). Relevant information to complement these calculations is available when applicable in the individual spreadsheets.

Client Facilities that did not provide evidence for their PAIs for this monitoring period are excluded from this report and are identified in dark red in Table 6 and 7.

Table 6: Quantification of project emissions of 2020 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	170.77	×	0.000036	=	0.006	137
		50,351.60	×	0.002735	=	137.70	
Client Facility 0108	1	25.92	×	0.000036	=	0.00	11

		4,009.00	×	0.002735	=	10.96	
	1	267,962.12	×	0.000002	=	0.54	
Client Facility 0301	1	0.00	×	0.000036	=	0.00	0
		0.00	×	0.002735	=	0.00	
Client Facility 0302	1	30,543.80	×	0.001544	=	47.16	208
		17,506.90	×	0.002735	=	47.88	
	1	4,455.90	×	0.002790	=	12.43	
	1	37,007.48	×	0.002735	=	101.21	
	1	10.1	×	0.000036	=	0.00	
	1	0	×	0.000000	=	0.00	
	1	0	×	0.000000	=	0.00	
Client Facility 0303	0	-	×	-	=	-	-
Client Facility 0305	1	341.30	×	0.000036	=	0.01	15
		5,499.80	×	0.002735	=	15.04	
Client Facility 0306	34	658.79	×	0.000036	=	0.02	5
		2,911,242.49	×	0.000002	=	5.94	
Client Facility 0307	1	261,179.00	×	0.000002	=	0.53	17
		10,912.00	×	0.001544	=	16.85	
Client Facility 0308	1	159,660.00	×	0.000002	=	0.32	6
	1	2,241.10	×	0.002735	=	6.13	
Client Facility 0309	1	9.63	×	0.000036	=	0.00	0
	2	0	×	0.000000	=	0	
Client Facility 0403	1	238.64	×	0.000036	=	0.01	0
	1	0	×	0.000000	=	0	
Client Facility 0404	1	443,040.00	×	0.000002	=	0.90	12
	1	290,400.00	×	0.000002	=	0.59	
	1	300,780.00	×	0.000002	=	0.61	
	1	1,088,400.00	×	0.000002	=	2.22	
	1	1,915,200.00	×	0.000002	=	3.91	
	1	174,690.00	×	0.000002	=	0.36	
	1	428,880.00	×	0.000002	=	0.87	
	1	254,970.00	×	0.000002	=	0.52	
	1	222,840.00	×	0.000002	=	0.45	
	1	289,425.00	×	0.000002	=	0.59	
	1	188,460.00	×	0.000002	=	0.38	
	1	150,480.00	×	0.000002	=	0.31	
	1	305,500.00	×	0.000002	=	0.62	
	1	175,320.00	×	0.000002	=	0.36	
Client Facility 0502	1	922.6	×	0.000036	=	0.03	7
		2,779.35	×	0.002735	=	7.60	

Client Facility 0503	0	-	×	-	=	-	-
Client Facility 0504	1	384,000.00	×	0.000002	=	0.78	
		4,204.00	×	0.002735	=	11.50	
	1	193,920.00	×	0.000002	=	0.40	
	1	3,504.00	×	0.001544	=	5.41	20
	2	1,156,800.00	×	0.000002	=	2.36	
	1	0	×	0.000000	=	0.00	
	1	0	×	0.000000	=	0.00	
Client Facility 0507	1	0	×	0.002735	=	0.00	
	3	0	×	0.000000	=	0.00	0
	16	0	×	0.000000	=	0.00	
Client Facility 0508	1	0	×	0.002735	=	0.00	
	1	0	×	0.002735	=	0.00	
	1	0	×	0.002735	=	0.00	
	1	0	×	0.002735	=	0.00	0
	1	0	×	0.002735	=	0.00	
	1	0	×	0.002735	=	0.00	
Client Facility 0512	1	0	×	0.000000	=	0.00	0
Client Facility 0601	9	2,901,913.18	×	0.000036	=	104.37	
	1	0	×	0.001544	=	0.00	104
	1	0	×	0.000000	=	0.00	
Client Facility 0602	1	99,185.68	×	0.001889	=	187.39	
	1	13525.32	×	0.001889	=	25.55	212
	1	0	×	0.001889	=	0.00	
Client Facility 0603	0	-	×	-	=	-	-
Client Facility 0604	1	2,189.06	×	2.486830	=	5443.82	
	1	0	×	0.001889	=	0.00	
	1	0	×	0.001889	=	0.00	
	1	0	×	0.001889	=	0.00	5,956
	1	169,278.31	×	0.001544	=	261.36	
	1	149,853.85	×	0.001544	=	231.37	
		9,967,322.00	×	0.000002	=	20.33	
Client Facility 0605	1	66,599.30	×	0.002735	=	182.13	
	1	35,008.50	×	0.002361	=	82.66	311
		16,822.70	×	0.002790	=	46.93	
Client Facility 0701	1	61,740.00	×	0.000002	=	0.13	0
Client Facility 0702	1	52,052.70	×	0.001544	=	80.37	
		70,140.00	×	0.000036	=	2.52	165
	1	53,207.74	×	0.001544	=	82.15	
Client Facility 0703	0	-	×	-	=	-	-

Client Facility 0704	1	135,173.00	×	0.000002	=	0.28	0
Client Facility 0705	0	-	×	-	=	-	-
Client Facility 0706	1	246,235.28	×	0.001544	=	380.18	2,108
	1	58,607.80	×	0.001544	=	90.49	
	1	72,610.72	×	0.001544	=	112.11	
	1	567,555.81	×	0.001544	=	876.29	
	1	105,988.17	×	0.001544	=	163.64	
	1	53,761.06	×	0.001544	=	83.01	
	1	260,941.17	×	0.001544	=	402.89	
	1	0	×	0.000000	=	0.00	
Client Facility 0707	4	0	×	0.000000	=	0.00	0
	4	0	×	0.000000	=	0.00	
	4	0	×	0.000000	=	0.00	
	4	0	×	0.000000	=	0.00	
	4	0	×	0.000000	=	0.00	
	4	0	×	0.000000	=	0.00	
	24	-	×	-	=	-	
Client Facility 0709	0	-	×	-	=	-	-
Client Facility 0710	1	11,640.00	×	0.000036	=	0.42	0
	1	0	×	0.000000	=	0.00	
	85	0	×	0.000000	=	0.00	
Client Facility 0711	0	-	×	-	=	-	-
Client Facility 0712	1	0	×	0.000000	=	0.00	0
	1	0	×	0.000000	=	0.00	
	1	0	×	0.000000	=	0.00	
Client Facility 0713	0	-	×	-	=	-	-
Client Facility 0714	0	-	×	-	=	-	-
Client Facility 0801	0	-	×	-	=	-	-
Client Facility 0802	1	765,083.33	×	0.000036	=	27.52	27
Client Facility 0803	0	-	×	-	=	-	
Client Facility 0804	1	151,346.00	×	0.000002	=	0.31	2
	1	989,280.00	×	0.000002	=	2.02	
Client Facility 0805	14	0	×	0.000000	=	0	0
Client Facility 0806	39	0	×	0.000000	=	0	0
Client Facility 0808	15	0	×	0.000000	=	0	0
Client Facility 0901	1	0	×	0.000000	=	0	0
	1	0	×	0.000000	=	0	
	1	0	×	0.000000	=	0	
Client Facility 0902	0	-	×	-	=	-	-
Client Facility 0903	0	-	×	-	=	-	-

Client Facility 0905	0	-	×	-	=	-	-
Client Facility 0910	1	231,840.00	×	0.000002	=	0.47	
	5	0	×	0.000000	=	0	0
	1	0	×	0.000000	=	0	
Client Facility 1001	0	-	×	-	=	-	-
Client Facility 1005	5	10,395.88	×	0.000036	=	0.37	
		549,545.00	×	0.001889	=	1038.27	1,653
	2	7,080.04	×	0.000036	=	0.25	
		398,349.00	×	0.001544	=	615.04	
Client Facility 1008	1	183,038.00	×	0.000002	=	0.37	2
		1,397.90	×	0.001544	=	2.16	
Client Facility 1011	1	43,067.00	×	0.001889	=	81.37	
		1,767,600.00	×	0.000002	=	3.61	
	1	0	×	0.001889	=	0.00	
		0	×	0.000002	=	0.00	
	1	102,420.00	×	0.001889	=	193.50	
		1,474,200.00	×	0.000002	=	3.01	
	1	0.00	×	0.001889	=	0.00	
		0.00	×	0.000002	=	0.00	
	1	40,918.00	×	0.001889	=	77.31	630
		261,135.00	×	0.000002	=	0.53	
	1	71,024.00	×	0.001889	=	134.19	
		788,880.00	×	0.000002	=	1.61	
	1	0	×	0.001889	=	0.00	
		0	×	0.000002	=	0.00	
	1	48,744.00	×	0.001889	=	92.09	
		1,458,000.00	×	0.000002	=	2.97	
	1	21,035.00	×	0.001889	=	39.74	
		151,740.00	×	0.000002	=	0.31	
Client Facility 1101	10	61,000.00	×	0.002422	=	147.76	
	10	3,121.16		0.000036		0.11	
		61,000.00		0.002422		147.76	562
		60,154.88		0.002735		164.51	
		66,099.00	×	0.001544	=	102.06	
	3	0	×	0.000000	=	0.00	
Client Facility 1102	1	400	×	0.002735	=	1.09	1
		242,900.00	×	0.000002	=	0.50	
Client Facility 1103	12	0	×	0.000000	=	0.00	
	12	0	×	0.000000	=	0.00	0
	12	0	×	0.000000	=	0.00	

	12	0	×	0.000000	=	0.00	
Client Facility 1108	1	0	×	0.000000	=	0.00	
	1	0	×	0.000000	=	0.00	0
	1	0	×	0.000000	=	0.00	
Client Facility 1201	1	271,339.00	×	0.000002	=	0.55	0
Client Facility 1204	1	4,204.50	×	0.002735	=	11.50	11
Client Facility 1205	1	0.00	×	0.002735	=	0.00	0
		0.00	×	0.001544	=	0.00	
Client Facility 1206	0	-	×	-	=	-	-
Client Facility 1207	1	0	×	0.000000	=	0.00	
	1	0	×	0.000000	=	0.00	0
	1	0	×	0.000000	=	0.00	
Client Facility 1208	1	0	×	0.002735	=	0.00	1
		938,400.00	×	0.000002	=	1.91	
Client Facility 1209	1	17.00	×	0.000036	=	0.00	
Client Facility 1210	18	46,800.00	×	0.002422	=	113.37	113
		462.6	×	0.000036	=	0.02	
Client Facility 1302	1	0	×	0.000000	=	0.00	0
	1	0	×	0.000000	=	0.00	
Client Facility 1303	1	210,973.00	×	0.000002	=	0.43	0
Client Facility 1304	0	-	×	-	=	-	-
Client Facility 1305	1	51,800.00	×	0.000002	=	0.11	14
		5,289.50		0.002735		14.47	
Client Facility 1308	1	0	×	0.000000	=	0	0
	1	0	×	0.000000	=	0	
Client Facility 1309	1	2,454.00	×	0.001544	=	3.79	
	1	0	×	0.000000	=	0	3
	1	0	×	0.000000	=	0	
	1	0	×	0.000000	=	0	
Client Facility 1312	33	0	×	0.000000	=	0	0
Client Facility 1314	10	5,185.75	×	0.000036	=	0.19	
	5	10,762.76	×	0.000036	=	0.39	0
	5	5,445.59	×	0.000036	=	0.20	
	15	0	×	0.000000	=	0	
Client Facility 1330	0	-	×	-	=	-	-
	0	-	×	-	=	-	
Client Facility 1401	1	0	×	0.000000	=	0	0
Client Facility 1403	0	-	×	-	=	-	-
Client Facility 1404	0	-	×	-	=	-	-
Client Facility 1601	1	293,190.67	×	0.001764	=	517.18	1,641

		19,234.00	×	0.001544	=	29.70	
		3,200.71	×	0.000036	=	0.12	
	1	293,190.67	×	0.001764	=	517.18	
		19,234.00	×	0.001544	=	29.70	
		3,200.71	×	0.000036	=	0.12	
	1	293,190.67	×	0.001764	=	517.18	
		19,234.00	×	0.001544	=	29.70	
		3,200.71	×	0.000036	=	0.12	
	1	5,492.00	×	0.000036	=	0.20	
	3	0	×	0.000000	=	0	
	50	0	×	0.000000	=	0	
Client Facility 1602	3	4,920.80	×	0.001544	=	7.60	8
		230,040.00		0.000002		0.47	
		118,480.00		0.000002		0.24	
Client Facility 1603	1	4,916.00	×	0.001889	=	9.29	11
		899,496.00	×	0.000002	=	1.83	
	1	0	×	0.000000	=	0	
	1	0	×	0.000000	=	0	
Client Facility 1604	0	-	×	-	=	-	-
Client Facility 1605	5	3,126.14	×	0.000783	=	2.45	2
	5	0.00	×	0.000000	=	0	
	5	0	×	0.000000	=	0	
Client Facility 0002	76	35,410.00	×	0.000036	=	1.27	1
	12	0	×	0.000000	=	0	
Client Facility 0003	34	1,606,662.00	×	0.000061	=	98.01	98
Total:	**752**						**14,074**

PEy values have been rounded down for conservativeness.

The project emissions PEy = 14,074 tCO_2e

Table 7: Quantification of project emissions of 2021 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	146.31	×	0.000036	=	0.01	55
		20,164.30	×	0.002735	=	55.14	
Client Facility 0108	1	18.51	×	0.000036	=	0.00	12
		4,224.00	×	0.002735	=	11.55	
	1	267,962.12	×	0.000002	=	0.54	

Client Facility 0301	1	48,938.40	×	0.002735	=	133.85	133
Client Facility 0302	1	26,414.30	×	0.001544	=	40.78	160
		11,730.10	×	0.002735	=	32.08	
	1	3,483.00	×	0.002790	=	9.72	
	1	28,646.73	×	0.002735	=	78.34	
	1	12.82	×	0.000036	=	0.00	
	1	0.00	×	0.000000	=	0.00	
	1	0.00	×	0.000000	=	0.00	
Client Facility 0303	0	-	×	-	=	-	-
Client Facility 0305	1	323.32	×	0.000036	=	0.01	11
		4,041.00	×	0.002735	=	11.05	
Client Facility 0306	0	0.00	×	0.000036	=	0.00	0
		0.00	×	0.000002	=	0.00	
Client Facility 0307	1	266,849.00	×	0.000002	=	0.54	18
		11,535.00	×	0.001544	=	17.81	
Client Facility 0308	1	126,900.00	×	0.000002	=	0.25	0
Client Facility 0309	0	0.00	×	0.000036	=	0.00	0
	2	0.00	×	0.000000	=	0	
Client Facility 0403	1	252.49	×	0.000036	=	0.01	0
	1	0.00	×	0.000000	=	0	
Client Facility 0404	1	445,680.00	×	0.000002	=	0.91	11
	1	307,440.00	×	0.000002	=	0.63	
	1	142,320.00	×	0.000002	=	0.29	
	1	1,092,000.00	×	0.000002	=	2.23	
	1	1,891,800.00	×	0.000002	=	3.86	
	1	104,130.00	×	0.000002	=	0.21	
	1	430,560.00	×	0.000002	=	0.88	
	1	242,100.00	×	0.000002	=	0.49	
	1	202,500.00	×	0.000002	=	0.41	
	1	269,160.00	×	0.000002	=	0.55	
	1	196,020.00	×	0.000002	=	0.40	
	1	174,360.00	×	0.000002	=	0.36	
	1	216,440.00	×	0.000002	=	0.44	
	1	155,520.00	×	0.000002	=	0.32	
Client Facility 0502	1	843.56	×	0.000036	=	0.03	6
		2,200.00	×	0.002735	=	6.02	
Client Facility 0503	0	-	×	-	=	-	-
Client Facility 0504	1	389,640.00	×	0.000002	=	0.79	23
		5,569.20	×	0.002735	=	15.23	
	1	190,560.00	×	0.000002	=	0.39	

	1	3,270.00	×	0.001544	=	5.05	
	1	1,074,000.00	×	0.000002	=	2.19	
	1	0.00	×	0.000000	=	0.00	
	1	0.00	×	0.000000	=	0.00	
	1	0.00	×	0.000000	=	0.00	
Client Facility 0507	1	0.00	×	0.002735	=	0.00	
	3	0.00	×	0.000000	=	0.00	0
	16	0.00	×	0.000000	=	0.00	
Client Facility 0508	0	0.00	×	0.002735	=	0.00	
	0	0.00	×	0.002735	=	0.00	
	0	0.00	×	0.002735	=	0.00	0
	0	0.00	×	0.002735	=	0.00	
	0	0.00	×	0.002735	=	0.00	
	0	0.00	×	0.002735	=	0.00	
Client Facility 0512	1	0.00	×	0.000000	=	0.00	0
Client Facility 0601	9	2,909,458.17	×	0.000036	=	104.64	
	1	0	×	0.001544	=	0.00	104
	1	0	×	0.000000	=	0.00	
Client Facility 0602	1	102,288.60	×	0.001889	=	193.26	
	1	11365.4	×	0.001889	=	21.47	214
	1	0	×	0.001889	=	0.00	
Client Facility 0603	0	-	×	-	=	-	-
Client Facility 0604	1	1,909.43	×	2.486830	=	4748.43	
	1	0	×	0.001889	=	0.00	
	1	0	×	0.001889	=	0.00	
	1	0	×	0.001889	=	0.00	5,160
	1	169,278.31	×	0.001544	=	261.36	
	1	82,458.45	×	0.001544	=	127.31	
		11,270,364.00	×	0.000002	=	22.99	
Client Facility 0605	1	87,679.30	×	0.002735	=	239.78	
	1	16,985.40	×	0.002361	=	40.11	327
		16,985.00	×	0.002790	=	47.38	
Client Facility 0701	1	70,140.00	×	0.000002	=	0.14	0
Client Facility 0702	1	41,900.00	×	0.001544	=	64.69	
		50,100.00	×	0.000036	=	1.80	125
	1	38,005.53	×	0.001544	=	58.68	
Client Facility 0703	0	-	×	-	=	-	-
Client Facility 0704	1	132,031.00	×	0.000002	=	0.27	0
Client Facility 0705	0	-	×	-	=	-	-
Client Facility 0706	1	563,785.31	×	0.001544	=	870.47	3,689

	1	388,132.93	×	0.001544	=	599.27	
	1	310,357.23	×	0.001544	=	479.19	
	1	161,402.06	×	0.001544	=	249.20	
	1	152,343.46	×	0.001544	=	235.22	
	1	145,396.76	×	0.001544	=	224.49	
	1	668,361.05	×	0.001544	=	1,031.94	
	1	0.00	×	0.000000	=	0.00	
Client Facility 0707	4	0	×	0.000000	=	0.00	
	4	0	×	0.000000	=	0.00	
	4	0	×	0.000000	=	0.00	
	4	0	×	0.000000	=	0.00	0
	4	0	×	0.000000	=	0.00	
	4	0	×	0.000000	=	0.00	
	24	-	×	-	=	-	
Client Facility 0709	0	-	×	-	=	-	-
Client Facility 0710	1	11,169.00	×	0.000036	=	0.40	
	1	0	×	0.000000	=	0.00	0
	85	0	×	0.000000	=	0.00	
Client Facility 0711	0	-	×	-	=	-	-
Client Facility 0712	0	0	×	0.000000	=	0.00	
	0	0	×	0.000000	=	0.00	0
	0	0	×	0.000000	=	0.00	
Client Facility 0713	0	-	×	-	=	-	-
Client Facility 0714	0	-	×	-	=	-	-
Client Facility 0801	0	-	×	-	=	-	-
Client Facility 0802	1	850,000.00	×	0.000036	=	30.57	30
Client Facility 0803	0	-	×	-	=	-	
Client Facility 0804	1	135,599.00	×	0.000002	=	0.28	2
	1	911,880.00	×	0.000002	=	1.86	
Client Facility 0805	14	0	×	0.000000	=	0	0
Client Facility 0806	39	0	×	0.000000	=	0	0
Client Facility 0808	15	0	×	0.000000	=	0	0
Client Facility 0901	1	0	×	0.000000	=	0	
	1	0	×	0.000000	=	0	0
	1	0	×	0.000000	=	0	
Client Facility 0902	0	-	×	-	=	-	-
Client Facility 0903	0	-	×	-	=	-	-
Client Facility 0905	0	-	×	-	=	-	-
Client Facility 0910	0	0.00	×	0.000002	=	0.00	0
	0	0	×	0.000000	=	0	

	0	0	×	0.000000	=	0	
Client Facility 1001	0		×	-	=	-	-
Client Facility 1005	5	7,741.80	×	0.000036	=	0.28	1,828
		675,155.00	×	0.001889	=	1275.58	
	2	3,906.32	×	0.000036	=	0.14	
		357,994.00	×	0.001544	=	552.74	
Client Facility 1008	1	230,336.00	×	0.000002	=	0.47	1
		569.30	×	0.001544	=	0.88	
Client Facility 1011	0	0.00	×	0.001889	=	0.00	0
		0.00	×	0.000002	=	0.00	
Client Facility 1101	10	100,652.77	×	0.002422	=	243.82	732
	10	2,635.50		0.000036		0.09	
		100,652.77		0.002422		243.82	
		8,510.90		0.002735		23.28	
		143,185.00	×	0.001544	=	221.08	
	3	0	×	0.000000	=	0.00	
Client Facility 1102	1	400	×	0.002735	=	1.09	1
		390,880.00	×	0.000002	=	0.80	
Client Facility 1103	12	0	×	0.000000	=	0.00	0
	12	0	×	0.000000	=	0.00	
	12	0	×	0.000000	=	0.00	
	12	0	×	0.000000	=	0.00	
Client Facility 1108	1	0	×	0.000000	=	0.00	0
	1	0	×	0.000000	=	0.00	
	1	0	×	0.000000	=	0.00	
Client Facility 1201	1	277,686.00	×	0.000002	=	0.57	0
Client Facility 1204	1	0.00	×	0.002735	=	0.00	0
Client Facility 1205	0	0.00	×	0.002735	=	0.00	0
		0.00	×	0.001544	=	0.00	
Client Facility 1206	0	-	×	-	=	-	-
Client Facility 1207	1	0	×	0.000000	=	0.00	0
	1	0	×	0.000000	=	0.00	
	1	0	×	0.000000	=	0.00	
Client Facility 1208	0	0	×	0.002735	=	0.00	0
		0.00	×	0.000002	=	0.00	
Client Facility 1209	1	14.00	×	0.000036	=	0.00	
Client Facility 1210	18	156,305.00	×	0.002422	=	378.63	378
		166.35	×	0.000036	=	0.01	
Client Facility 1302	1	0	×	0.000000	=	0.00	0
	1	0	×	0.000000	=	0.00	

Client Facility 1303	1	201,871.00	×	0.000002	=	0.41	0
Client Facility 1304	0	-	×	-	=	-	-
Client Facility 1305	1	46,140.00	×	0.000002	=	0.09	8
		2,953.90		0.002735		8.08	
Client Facility 1308	1	0	×	0.000000	=	0	0
	1	0	×	0.000000	=	0	
Client Facility 1309	1	4,303.00	×	0.001544	=	6.64	6
	1	0	×	0.000000	=	0	
	1	0	×	0.000000	=	0	
	1	0	×	0.000000	=	0	
Client Facility 1312	33	0	×	0.000000	=	0	0
Client Facility 1314	10	3,475.96	×	0.000036	=	0.13	0
	5	11,953.17	×	0.000036	=	0.43	
	5	5,015.54	×	0.000036	=	0.18	
	15	0	×	0.000000	=	0	
Client Facility 1330	0	-	×	-	=	-	-
	0	-	×	-	=	-	
Client Facility 1401	1	0	×	0.000000	=	0	0
Client Facility 1403	0	-	×	-	=	-	-
Client Facility 1404	0	-	×	-	=	-	-
Client Facility 1601	1	325,664.00	×	0.001764	=	574.47	1,845
		26,146.73	×	0.001544	=	40.37	
		7,259.00	×	0.000036	=	0.26	
	1	325,664.00	×	0.001764	=	574.47	
		26,146.73	×	0.001544	=	40.37	
		7,259.00	×	0.000036	=	0.26	
	1	325,664.00	×	0.001764	=	574.47	
		26,146.73	×	0.001544	=	40.37	
		7,259.00	×	0.000036	=	0.26	
	1	6,353.17	×	0.000036	=	0.23	
	3	0	×	0.000000	=	0	
	50	0	×	0.000000	=	0	
Client Facility 1602	3	6,608.40	×	0.001544	=	10.20	11
		263,520.00		0.000002		0.54	
		132,160.00		0.000002		0.27	
Client Facility 1603	1	6,687.00	×	0.001889	=	12.63	14
		841,020.00	×	0.000002	=	1.72	
	1	0	×	0.000000	=	0.00	
	1	0	×	0.000000	=	0	
Client Facility 1604	0	-	×	-	=	-	-

Client Facility 1605	5	8,503.98	×	0.000783	=	6.66	6
	5	0.00	×	0.000000	=	0	
	5	0	×	0.000000	=	0	
Client Facility 0002	76	13,918.00	×	0.000036	=	0.50	0
	12	0	×	0.000000	=	0	
Client Facility 0003	34	1,802,233.00	×	0.000061	=	109.94	109
Total:	**689**						**15,019**

PEy values have been rounded down for conservativeness.

The project emissions PEy = 15,019 tCO_2e

5.3 Leakage

At Project Unit level, the leakage, during the period of January First, 2020, to December 31st, 2021, is *de minimus*, thus LEy=0.

5.4 Net GHG Emission Reductions and Removals

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

Thus, $ER_y = BE_y - PE_y - LE_y$

Table 8 Net GHG emission reductions of the Sustainable Community Project

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
01-Jan-2020 to 31-Dec-2020	*852,747*	*14,074*	*De minimus*	*838,673*
01-Jan-2021 to 31-Dec-2021	*801,245*	*15,019*	*De minimus*	*786,226*
Total	***1,653,992***	***29,093***	***De minimus***	***1,624,899***

The 1,624,899 tCO_2e representing the net GHG emission reductions of the years (vintage) 2020 and 2021 written in Table 8 include the net GHG emissions reductions from sectoral scope 3 and 13 generated between January 1st, 2020, and December 31st, 2021.

Regarding the table below, it is important to note that all PAIs from this grouped 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-2020 to 31-Dec-2020	1,900,000	838,673	77 %	Recruitment of new Client Facilities and new PAIs into the Sustainable Community project was not as high as expected, mainly due to COVID-19 impacts on operations of all organizations.
01-Jan-2021 to 31-Dec-2021	2,350,000	786,226	99 %	Recruitment of new Client Facilities and new PAIs into the Sustainable Community project was not as high as expected, mainly due to COVID-19 impacts on operations of all organizations.
Total	4,250,000	1,624,899	89 %	

APPENDIX A: 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 five 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).[6]

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[7]. The project proponent is therefore able to easily and regularly verify that none 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[8] 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

[6] https://www.environnement.gouv.qc.ca/changementsclimatiques/marche-carbone.asp
[7] https://www.environnement.gouv.qc.ca/changements/carbone/participants-inscrits-au-SPEDE.htm
[8] 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 the last four 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. As written in section 1.9, all GHG reductions from the 328 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 double counting.

For the period of January 1st, 2020, to December 31st 2021, sectoral scope 3 emissions account for 421,812 tCO_2e of emission reductions. This amount is included in this Monitoring Report and will be serialized under the VCS program.

APPENDIX B: DETAILS OF SUMMARIZED RESULTS AND SOCIAL IMPACTS

The project proponent produces a summarized spreadsheet that regroups all the yearly eligible baseline and projects GHG emissions per Client Facility participating to this monitoring report. An anonymized version of the summarized data sheet **is available on the Verra registry (named Annex B-C)** due to it containing Confidential Information on Client Facilities.

APPENDIX C: RESULTS FOR THE EMISSION REDUCTIONS OF 2015-2019

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, 2015 to December 31st, 2019, as well as the emission reductions for 2020 and 2021 for 42 new PAIs. The amount of these verified GHG reductions represents 147,893 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 2015-2021 emission reductions reported in Table 9 below were not reported in previous monitoring reports, and therefore that there are no risks of double counting with all five previous monitoring reports.

Table 9 List of GHG emission reductions quantified by vintage from the period of January 1st, 2015, to December 31st, 2019, and 42 new PAIs for the vintages 2020 and 2021.

	GHG emissions in (tCO_2e)			
Year	Baseline emissions (tCO_2e)	Project emissions (tCO_2e)	Leakage emissions (tCO_2e)	Net emission reductions (tCO_2e)
2015	10,324	20	*De minimus*	10,304
2016	13,877	4	*De minimus*	13,873
2017	13,761	21	*De minimus*	13,740
2018	14,378	76	*De minimus*	14,302
2019	37,433	92	*De minimus*	37,341
2020	26,265	41	*De minimus*	26,224
2021	32,539	430	*De minimus*	32,109
Total 2015-2019	**148,577**	**684**	***De minimus***	**147,893**

The net GHG emission reductions for the years 2015, 2016, 2017, 2018 and 2019, and from 2020 and 2021 (new PAIs), 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.

Baseline Emission (2020 Excluded New PAIs)

The Client Facilities (CF) in **bold** in the table below are new CF's with new PAIs that are excluded from this monitoring report. CF's not in bold have new PAIs but were already part of previous monitoring reports.

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 0102	1	7,273	×	0.002735	=	19.89	19
Client Facility 0103	1	83,490.58	×	0.002735	=	228.32	228
Client Facility 0304	1	145,699.47	×	0.002735	=	398.45	398
Client Facility 0306	16	334,405.24	×	0.002735	=	914.15	914
Client Facility 0601	1	3,092,312.08	×	0.000002	=	6.31	6
Client Facility 1108	1	3,820.14	×	0.683240	=	2,610.07	2,610
Client Facility 1210	1	462.60	×	1.785240	=	825.85	825
Client Facility 1314	6	3,195	×	1.785240	=	5,703.84	5,703
Client Facility 0004	1	1,882.64	×	0.003146	=	5.92	
	1	604.06	×	0.003146	=	1.90	13
	1	1,828.82	×	0.003146	=	5.75	
Client Facility 0005	1	358,733.60	×	0.001544	=	553.88	553
	3	7,821.00	×	1.917480	=	14,996.61	14,996
	35						26,265

BEy values have been rounded down for conservativeness.

The baseline emissions BEy for the 2020 vintage, excluded from this MR = 26,265 tCO_2e

Baseline Emission (2021 Excluded New PAIs)

The Client Facilities (CF) in **bold** in the table below are new CF's with new PAIs that are excluded from this monitoring report. CF's not in bold have new PAIs but were already part of previous monitoring reports.

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 0102	1	7,273	×	0.002735	=	19.89	19
Client Facility 0103	1	0.00	×	0.002735	=	0.00	0
Client Facility 0302	1	17,506.90	×	0.002735	=	47.88	47
Client Facility 0304	1	132,284.34	×	0.002735	=	361.76	361
Client Facility 0601	1	3,092,312.08	×	0.000002	=	6.31	6
Client Facility 0702	1	52,052.70	×	0.001544	=	80.37	80
Client Facility 0706	4	635,787.54	×	0.001764	=	1,121.52	1,142

		13,346.10	×	0.001544	=	20.61	
Client Facility 1108	1	4,089.83	×	0.683240	=	2,794.33	2,794
Client Facility 1210	1	166.35	×	1.785240	=	296.97	296
Client Facility 1308	1	300.00	×	0.002361	=	0.71	0
Client Facility 1314	4	9,653.00	×	1.785240	=	17,232.92	17,232
Client Facility 0004	1	1,882.64	×	0.003146	=	5.92	
	1	199.58	×	0.003146	=	0.63	12
	1	1,828.82	×	0.003146	=	5.75	
Client Facility 0005	1	358,733.60	×	0.001544	=	553.88	553
	2	5,214.00	×	1.917480	=	9,997.74	9,997
	23						32,539

BEy values have been rounded down for conservativeness.

The baseline emissions BEy for the 2021 vintage, excluded from this MR = 32,539 tCO_2e

Project Emission (2020 Excluded New PAIs)

The Client Facilities (CF) in **bold** in the table below are new CF's with new PAIs that are excluded from this monitoring report. CF's not in bold have new PAIs but were already part of previous monitoring reports..

Client Facilities	Nbr of PAIs	$FF_{BL,y}$ or $WS_{BL,y}$	×	EF_3 or EF_{13}	=	PE_y in tCO_2e	PE_y in tCO_2e (rounded down)
Client Facility 0102	1	475,560.00	×	0.000002	=	0.97	0
Client Facility 0103	1	167.42	×	0.000036	=	0.01	22
		8,140.00	×	0.002735	=	22.26	
Client Facility 0304	1	283.00	×	0.000036	=	0.01	12
		4,567.00	×	0.002735	=	12.49	
Client Facility 0306	16	336.71	×	0.000036	=	0.01	3
		1,620,501.09	×	0.000002	=	3.31	
Client Facility 0601	1	0.00	×	0.00	=	0.00	0
Client Facility 1108	1	0.00	×	0.00	=	0.00	0
Client Facility 1210	1	0.00	×	0.00	=	0.00	0
Client Facility 1314	6	0.00	×	0.00	=	0.00	0
Client Facility 0004	1	3,736	×	0.000002	=	0.01	0
		1,458.68	×	0.003146	=	4.59	
	1	7,134.00	×	0.000002	=	0.01	4
	1	470.60	×	0.000036	=	0.02	
Client Facility 0005	1	0.00	×	0.00	=	0.00	0

	3	0.00	×	0.00	=	0.00	0
	35						41

PEy values have been rounded down for conservativeness.

The baseline emissions PEy for the 2020 vintage, excluded from this MR = 41 tCO_2e

Project Emission (2021 Excluded New PAIs)

The Client Facilities (CF) in **bold** in the table below are new CF's with new PAIs that are excluded from this monitoring report. CF's not in bold have new PAIs but were already part of previous monitoring reports.

Client Facilities	Nbr of PAIs	$FF_{BL,y}$ or $WS_{BL,y}$	×	EF_3 or EF_{13}	=	PE_y in tCO_2e	PE_y in tCO_2e (rounded down)
Client Facility 0102	1	560,340.00	×	0.000002	=	1.14	1
Client Facility 0103	1	0.00	×	0.00	=	0.00	0
		0.00	×	0.00	=	0.00	0
Client Facility 0302	1	224,640.00	×	0.000002	=	0.46	0
Client Facility 0304	1	260.00	×	0.000036	=	0.01	7
		2,622.00	×	0.002735	=	7.17	
Client Facility 0601	1	0.00	×	0.00	=	0.00	0
Client Facility 0702	1	300,000	×	0.000002	=	0.61	0
		0.00		0.001544		0.00	
Client Facility 0706	4	271,221.20	×	0.001544	=	418.76	418
Client Facility 1108	1	0.00	×	0.00	=	0.00	0
Client Facility 1210	1	0.00	×	0.00	=	0.00	0
Client Facility 1308	1	2,907.00	×	0.000002	=	0.01	0
Client Facility 1314	4	0.00	×	0.00	=	0.00	0
Client Facility 0004	1	5,163.00	×	0.000002	=	0.01	4
		1,541.41	×	0.003146	=	4.85	
	1	4,801.00	×	0.000002	=	0.01	
	1	724.00	×	0.000036	=	0.03	
Client Facility 0005	1	0.00	×	0.00	=	0.00	0
	1	0.00	×	0.00	=	0.00	0
	23						430

PEy values have been rounded down for conservativeness.

The baseline emissions PEy for the 2021 vintage, excluded from this MR = 430 tCO_2e

APPENDIX D: DATA, PARAMETERS, AND MONITORING PLAN

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

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	Thermal Energy kg CO2e/GJ
1	3	MERN, August 16, 2019	Butane	L	0.001764	62.03
2	3	MERN, August 16, 2019	Biomass and bark residue	Mt	0.000036	95.57
3	3	MERN, August 16, 2019	Diesel	L	0.002789	72.84
4	3	MERN, August 16, 2019	Electricity	KWh	0.000002	0.57
5	3	MERN, August 16, 2019	Gasoline	L	0.002361	67.71
6	3	MERN, August 16, 2019	Coal coke	Mt	0.002487	86.26
7	3	MERN, August 16, 2019	Natural gas	M3	0.001889	49.86
8	3	MERN, August 16, 2019	Fuel oil no. 2	L	0.002735	71.03
9	3	MERN, August 16, 2019	Fuel oil no. 6	L	0.003146	74.03
10	3	Life Cycle Carbon Benefits of Aerospace Alloy Recycling[9]	Recycled metal (FeTi)	Mt	0.000061	N/A
11	3	MERN, August 16, 2019	Propane	L	0.001544	61.00

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[10].

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 version 15, 2020	Food/Organic waste	Mt	0.683240

[9] 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

[10] 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

2	13	USEPA, WARM version 15, 2020	Corrugated container; Cardboard	Mt	*3.658640*
3	13	USEPA, WARM version 15, 2020	Mixed paper	Mt	*3.934140*
4	13	CDM scope 13; AMS-III-E	Sewage & septic sludges	Mt	2.085
5	13	USEPA, WARM version 15, 2020	Contaminated/treated soil (Asphalt shingles)	Mt	0.022040
6	13	USEPA, WARM version 15, 2020	Medium density fiberboard; urban biomass	Mt	1.785240
7	13	USEPA, WARM version 15, 2020	Dimensional lumber; Bark residues	Mt	1.917480
8	13	USEPA, WARM version 15, 2020	Green residues; Putrescible	Mt	0.683240
10	13	USEPA, WARM version 15, 2020	Mixed Plastics	Mt	1.046900

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

D-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.		

D-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	

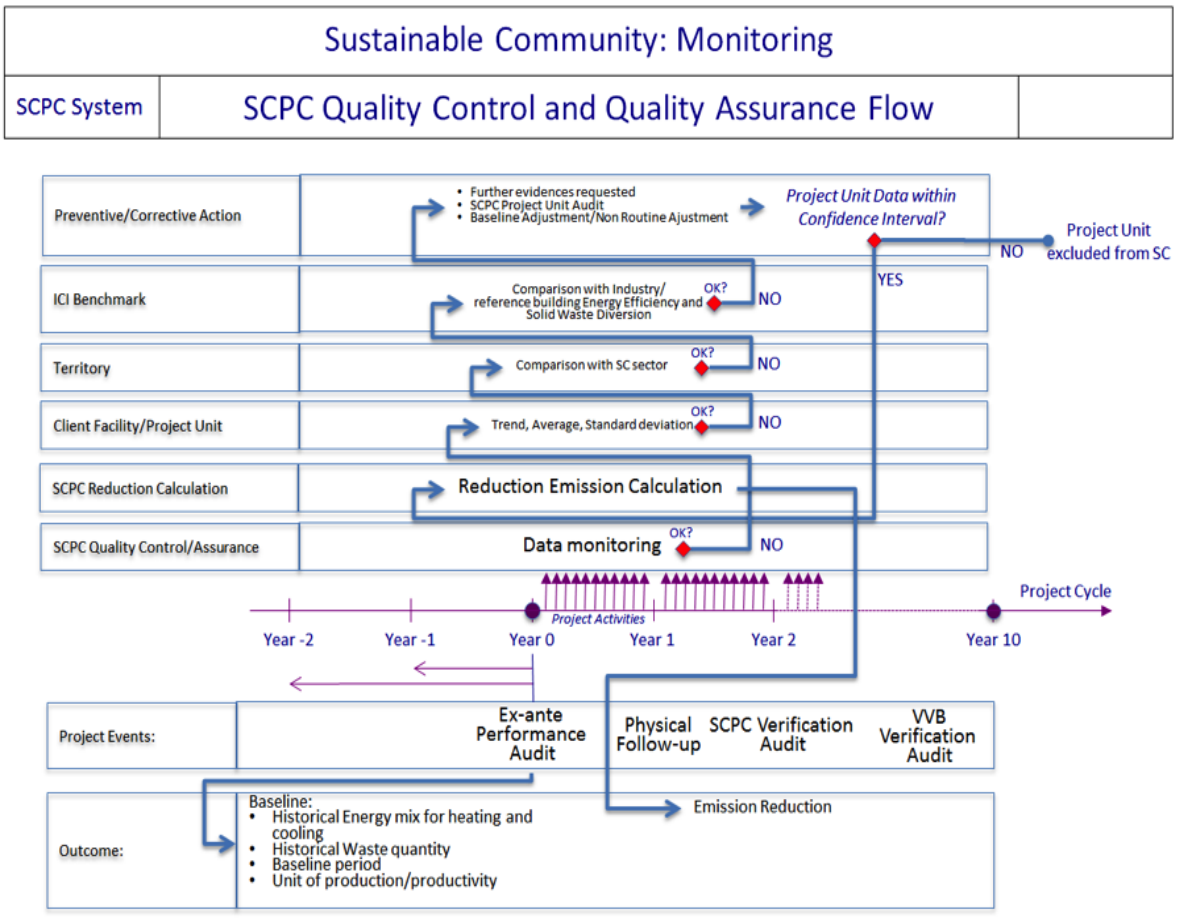
Waste	Waste diversion	Option B		Waste mass / volume	Mass: balance Volume: container	Transaction based	Weight calculation from volume	Materiality as company charged on container
	Waste reduction: substitution of single wood pallets by reusable cardboard palette	Option B		Number of palettes and reusage	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 level of responsibility of the organization. Should the system require, a recourse/appeal will be set in place.

APPENDIX E: 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 are 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-ofgreenhouse-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-Update2019.pdf

- 2020: https://solutionswill.com/wpcontent/uploads/2020/07/SustainDevelopGoalsReport_SolutionsWILL_2020.pdf
- 2021: https://solutionswill.com/wpcontent/uploads/2021/07/SustainableDevelopmentReport_SolutionsWILL_June20 21.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

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/fr-fr/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-TSVCMJune2021_Flyer_ANG-VFinal.pdf
- January 2021 on Verra consultation on EFCU: https://solutionswill.com/wp-content/uploads/2021/01/Will-contribution-to-VCS-questionsabout-EFCU_15Jan2021.pdf
- November 2020 on TSVCM: https://solutionswill.com/wp-content/uploads/2020/11/Will-contribution-to-TSVCM-V1V3.pdf
- August 2020 to Environment Canada and Climate change on carbon pricing: https://solutionswill.com/wp-content/uploads/2020/08/Federal-carbon-pricingmemoir_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-VCSversion-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/wpcontent/uploads/2019/07/wills_comment_on_draft_version_4.0_vcs_july_5_2018.pdf