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

Document Prepared by the quantification team of WILL Solutions and its collaborators

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| **Project Title** | Energy efficiency and solid waste diversion activities within the Quebec Sustainable Community |
| **Version** | *1.7* |
| **Report ID** | Fifth Monitoring Report |
| **Date of Issue** | 22-11-2023 |
| **Project ID** | *929* |
| **Monitoring Period** | 01-01-2019 to 31-12-2019 |
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# 1 PROJECT DETAILS

## 1.1 Summary Description of the Implementation Status of the Project

The Energy Efficiency and Solid Waste Diversion Activities within the Quebec Sustainable Community project document was prepared by Will Solutions Inc. to allow Will Solutions as project proponent (Sustainable Community Service Promoter (SCSP)), to quantify and originate GHG emission reductions in conformance with VCS Methodology VM0018 Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community (Version 1.0). The project targets a large range of Client Facilities, all located inside the Province of Quebec, mainly small to medium sized companies (each one emits $\leq$ 25,000 $tCO_2e$ of GHG emission/year/facility, small final emitters (SFEs)), that are part of the industrial, commercial, or institutional (ICI) sector, and/or property of several and different owners and grouped together inside a "Sustainable Community" within a Territory.

This project has been designed to be simple, yet rigorous to apply, measure, and monitor. Even though the activities of SFEs vary, energy consumption and waste disposal are similar across many businesses and organizations. The main objectives are:

1. To gradually group together inside a "Sustainable Community within a territory", up to 10,000 client facilities inside the Province of Quebec, that will achieve together a potential 22,852,000 $tCO_2e$ of GHG emission reductions for the period 2010-2019.

2. To stimulate and reward ICI business units – large or small facilities – for their efforts to reduce GHG emissions, by giving them access to the internationally recognized voluntary carbon credits market.

3. To collect ground data in real time, and consequently, stimulate and enhance ICI facilities for a better sustainable behavior.

4. This approach stimulates and rewards all the small actions carried out by each of the ICI sites: to divert industrial and commercial waste from landfill for a more efficient waste recovery and for increasing energy efficiency in buildings.

The project has been implemented by the Sustainable Community Service Promoter (SCSP) since January 1st, 2010. At the Client Facility level, situations vary: a majority of Project Units/Project Activity Instances (PAI)/Business Units have adhered to the Sustainable Community (SC) project and operate Project Units/PAI. Efforts since the beginning of the period focused on converting members and having their Project Units/PAI recorded 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 the future monitoring report will take into account all new PAIs which will be integrated into the SC between the first verification and the following ones. This quantification report will be the penultimate before the renewal of the Project Document (PD) for

another 10-year period (2020-2029). The total GHG emission reductions for the 735 PAIs active under the period starting January 1st, 2019 to December 31st, 2019 included in this Monitoring Report are 780,019 $tCO_2e$. That represents a yearly average of 1,061 $tCO_2e$ per PAI.

## 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

Will Solutions is the sole project proponent of this grouped project.

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| **Organization name** | WILL Solutions Inc. (WILL) |
| **Contact person** | Martin Clermont |
| **Title** | President, Founder, Professional Engineer, and carbon expert. |
| **Address** | Beloeil, Province of Quebec, Canada, J3G 5Z5 |
| **Telephone** | 514-990-2124 ext. 1 |
| **Email** | mclermont@solutionswill.com |

## 1.4 Other Entities Involved in the Project

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|---|---|
| **Organization name** | Certi Conseil |
| **Role in the Project** | Special advisor and internal validator as QA/QC of the WSI internal quality program |
| **Contact person** | Mr. Christophe Kaestli |
| **Title** | Senior Advisor |
| **Address** | Montreal, Province of Quebec, Canada |
| **Telephone** | 514-839-8788 |
| **Email** | christophe.kaestli@certiconseil.com |

## 1.5 Project Start Date

The project starting date is January 1st, 2010.

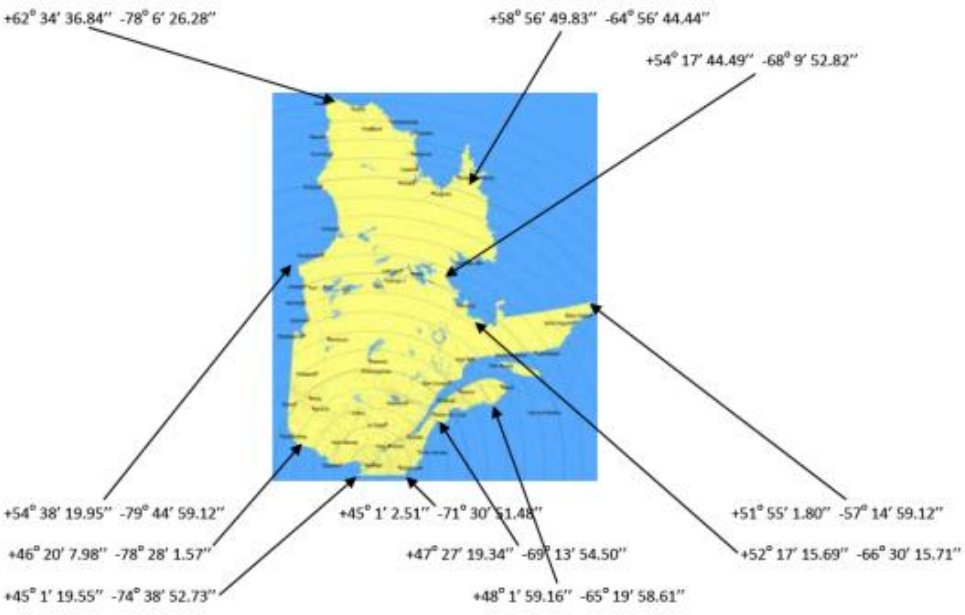
## 1.6 Project Crediting Period

The project crediting period is 10 years. The starting date is January 1st, 2010 and the end date is December 31st, 2019. The project was renewed and validated by VCS on May 24, 2021 for another 10-year 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 geographical map shown below represents the Province of Quebec and its territory. This Province shares more than 12,000 km of lands, 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 84 Client Facilities declared in this Monitoring Report, with 59 that have provided their data, which supports all 735 PAI, are all located inside this polygon. Refer to the Appendix C-1 for the specific geodetic coordinates of each Client Facility.



## 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; 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 four 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.

Furthermore, the project proponent took a conservative approach by excluding all grid electricity producers and distributors from all the 735 PAI of this Monitoring report, for the period of January 1st, 2019 to December 31st, 2019. Further information on how the project proponent avoids double counting risks with scope 3 can be found in Appendix A-2.

## 1.10 Other Forms of Credit

During the 2019 period, the project proponent, Will Solutions, received no other forms of environmental credit (EC). The GHG reductions quantified in this Monitoring Report are not related to any of the 80 regulated facilities emitting ≥ 25 kt of equivalent $CO_2$ and not linked to any of the 40 entities acting as distributor of fossil fuel involved in the RSPEDE (as a carbon trading program) and the project reductions have not been used for compliance under such programs or mechanisms.

## 1.11 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.

The SC solution also enhances conscious human gesture, prioritizing the behavioral change that guides the selection and integration of green technologies. The SC solution plays a catalyst role in achieving these objectives and in several sustainable development goals (SDGs) of the United

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

Nations (UN) in particular the SDG, 9, 10, 11, 12, 13 and 17, see more on our LinkedIn post: HERE.

Will Solutions Inc. (WILL), the project proponent, a certified B Corp private company, is acting as a social entrepreneur, and is engaged in providing the best business solutions and business models that measure the environmental performance of each individual, company, and community, and reward those who advocate for sustainable development. WILL is carbon neutral since 2007 and is committed to return 10% of his net benefit to community projects and initiatives supporting sustainable development. WILL is convinced that this action matches circular and positive economy concepts.

As the project proponent, WILL was directly affected by the COVID-19 health crisis (since March 2020 up to now). WILL made a corporate decision, with all due respect to our team of auditors, collaborators, members of our project, our VVB and other stakeholders, and with the approval of the VCS program, to carry out this 5th verification with our VVB in desk review mode.

WILL has also decided to renew our project document (PD) for another 10-year period starting January 1st, 2020 to December 31, 2029, which was written, completed, validated by a VVB and registered by VCS on May 24, 2021.

We are studying and planning during the period (2020-2029) to amend the VM0018 methodology in order to include the reduction of GHGs linked to sustainable mobility micro-projects (sectoral scope 7), which will include generic PAIs, with always the building as the perimeter for calculating eligible reductions. These generic PAIs might include behavioral changes, sharing and participative business models and the conversion of all vehicles to electric vehicles powered by renewable, non-fossil fuels.

In parallel, we have initiated in mid-2019 (with a network of researchers from 5 Canadian universities and two technological partners) a project to automate our traceability platform, which is operated in cloud mode, in order to include technology elements of IoT, AI and Block Chain. This automation, in addition to the reliability and the reduction of errors in handling the collected data (the evidences) from all our client facilities and their PAIs (data which represented, only in our third cohort, over 10,000 evidences, photos, and videos for ≈ 100,000 pages of different types of documents (i.e., big data)), will allow to group 20 times more members, up to 2,000.

These members might operate around 12,000 to 20,000 buildings in the same cluster. It will be then possible to complete a cohort of verification over a 12-month period, instead of 30 months, which will make it possible to address differently the issue of overlapping periods of the Monitoring Reports under the VCS program.

Evidence of the project's SD contributions are provided in Appendix F.

**Table 1: Sustainable Development Contributions**

| Row number | SDG Target | SDG Indicator | Net Impact on SDG Indicator | Current Project Contributions | Contributions Over Project Lifetime |
|---|---|---|---|---|---|
| 1) | 9.3 | Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets. | Implemented activities to increase | • Number of people within the Quebec province positively impacted by Will Solutions initiated Sustainable Community projects retribution.<br>• Number of GHG reduction projects aiming micro-projects *(as Projects activities instance (PAI))* carried out by Small and Medium Enterprises (SME) in relation to energy demand (sectoral scope 3) and waste management optimization (sectoral scope 13) which are the beneficiary of the resulting climate finance funding. | The lifetime contributions of this project involve:<br>• 9,53% of Quebec's population (near 800,000 people), associated to innovative projects through their organizations (SME, municipalities and NGOs)<br>• Over 800 GHG micro-projects (projects activities instances) realized by over 150 SMEs with a majority located in remote areas from 13 of the 17 administrations 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 | • A calculated 9,53% of the Quebec's population territory, located mainly in remote area, 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 the domino effect of driving climate action will allow us to increase inclusion inside the Quebec's territory. |
| 3) | 11.A | 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 | • Number of Quebec municipalities participating to the Sustainable Community project which is in direct line to mitigate the climate risk. | During the lifetime of this project:<br>• 14 % of Quebec's municipalities (160 municipal organizations over 1,110 Quebec's municipalities), located mainly in remote areas, have participated to this group project which is in direct line to mitigate the climate risk. |
| 4) | 12.5 | By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse. | Implemented activities to decrease | • As calculated, 547,212 $tCO_2e$ from waste emissions was avoided through the reduction of waste generation, recycling, reuse and composting, mainly realized in remote regions. | The renewal of our group project by VCS (May 2021) over the period of 2020-2029 combined with the domino effect of driving climate action will allow us to reach ≈10,000,000 $tCO_2e$ associated with the reduction of waste generation. |

| | | | | | |
|---|---|---|---|---|---|
| 5) | 13.0 | Tonnes of greenhouse gas emissions avoided or removed. | Implemented activities to increase | • Number of $tCO_2e$ of greenhouse gas emissions (GHG) avoided and reduced. | During the lifetime of this project:<br>• 1,143 million $tCO_2e$ of greenhouse gas emissions (GHG) avoided and or reduced. |
| 6) | 17.17 | Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships. | Implemented activities to increase | • Creation of a vortex to acts into climate action as part of a sustainable development policy<br>• Number of organizations and partnerships associated with the vortex.<br>• Number of contacts/presentations to attract and convince new members to contributed and trained to the vortex. | During the lifetime of this project:<br>• Creation/collaboration of 1 (one) vortex<br>• 14 NGOs directly associated to the vortex<br>• +300 meetings/conference to convince partners to adhere to 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 40% of the gross sales to each member to the extent of each of its 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 each 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 projects directly as well as municipalities which are focused on Sustainable Development and well aligned with the 17 Sustainable Development Goal (SDG) of the United Nations. In early 2022, WILL filed to the VERRA register, a first SD report covering the period starting January 1, 2016, in order to comply with the demand of the CORSIA market. WILL intends, following the verification of this Monitoring Report, to submit another SD report for the period ending on December 31, 2019.

WILL Solutions is certified B Corp since March 2019[2]. In 2018, WILL implemented a Sustainability Plan and produces since then a yearly report with the objective to continuously improve its ecological footprint. The latest report published in June 2021 described the carbon footprint of all corporate activities since 2007[3]. Since 2007, WILL has bought carbon offsets to achieve carbon neutrality. 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-Rivières Durable*, which aim to facilitate the microfinancing (with sustainability consideration) of SMEs and municipalities in remote areas

[2] B Corp link https://bcorporation.net/directory/solutions-will
[3] Link to the latest version released on 2020 https://www.solutionswill.com/uploads/2019/12/SD-Plan-Update-2019.pdf
[4] https://www.bcorpclimatecollective.org/net-zero-2030

and recruiting their customers (more than 10,000 SMEs and municipalities), as new member of the Sustainable Community project.

Directly knowing their customer and their sustainable projects (on energy consumption and waste detour), 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. For more information about the Reseau SADC: www.sadc-cae.ca/en/the-reseau/mission.html.

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

WILL as the project proponent has maintained ongoing communication with project stakeholders such as social development partners, collaborators, governments, members (client facilities) and VCU buyers. 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.

## 2.3 AFOLU-Specific Safeguards

Not applicable since this is a non-AFOLU project.

[7] Include our latest update 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 report, and the maintenance of operations of all PAIs included in this monitoring report has been duly verified. 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 excluded from this monitoring report do not have positive emissions, and this can be verified in the Annexure B-C as well as the individual data sheet.

The project activity includes a total of 9 Generic PAIs types. These Generic PAIs allow for the additionality analysis of the PAIs in this monitoring report, which are described in Table 2. The 84 Client Facilities and 735 specific PAIs fall into one or more of these 9 Generic PAIs.

**Table 2: 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 |

## 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 deviation to the Project Description (PD) in this Monitoring Report.

## 3.3 Grouped Projects

At the project proponent level, it was demonstrated, at the satisfaction of the VVB, as per, namely, the Combined tool to identify the baseline scenario and demonstrate additionality (Version 05.0.0 of the CMD) as requested by the VM0018. The group project (cluster) is additional and is still a first of its kind, around the world. In addition, as per CDM, Combined Tool to Identify the Baseline Scenario and Demonstrate Additionality and validated by the VVB in July 2013, the additionality of every Generic PAI has been demonstrated and approved.

Furthermore, without the cost sharing from the regrouping of all Client facilities, and without the Business model of the project proponent, it is impossible 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.

Each individual PAI, once found eligible is associated to the relevant Generic PAI: the project proponent has established a list of 9 generic PAI, which were validated by the VVB in the first monitoring report of February 2014, to classify activities. These Generic PAI cover the different micro-projects (PAI) which WILL (project proponent) wishes to add to its Sustainable Community project.

The Generic Projects Activity Instance (PAI) have processes/outcomes which overpass business as usual (BAU) practices and define more efficient ways when compared to common practices. On this basis, and as per CDM additionality guidelines, the VVB has confirmed the additionality of each Generic PAI. Any new PAI added in the Sustainable Community group project method is recognized to be additional if it meets the eligibility criteria.

# 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 generic PAI (Table 2) associated to a generic PAI are 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.<br><br>All values applied and used for the calculations are described for each generic project activity instance in the Appendix E.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:<br>• The Calculation of baseline emissions<br>• 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.<br><br>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix E.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:<br>• The Calculation of baseline emissions<br>• 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.<br><br>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix E.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:<br><br>The Calculation of baseline emissions<br><br>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.<br><br>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix E.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<br>• 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.<br><br>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix E.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:<br>• The Calculation of baseline emissions<br>• 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 E.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:<br>• The Calculation of baseline emissions<br>• 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:<br>• The Calculation of baseline emissions<br>• 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 E.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:<br>• The Calculation of baseline emissions<br>• 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.<br>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix E.2. |
| Purpose of Data | The MCF factor is used for:<br>• The Calculation of baseline emissions<br>• 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 generic PAI associated to generic PAI are 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 recorder. 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:<br>• Flow meters installed on tanker. By law, such flow meters are to be calibrated regularly.<br>• Supplier sealed flow meters installed at Client Facility, such as gas meter. |
| **QA/QC procedures to be applied** | The SPSC system applies the following QC/QA procedures:<br>• Data comparison with past performance<br>• Data comparison with similar Project Unit<br>• Data comparison with standard benchmark (Ashrae 90.1, Model National Energy Code for Building MNECB)<br>• Data comparison with sector association.<br>• Project Unit Investigation for root cause analysis of data profile if outside range<br>• 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.<br><br>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:<br><br>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. |
| QA/QC procedures to be applied | The SPSC system applies the following QC/QA procedures:<br>• Data comparison with past performance<br>• Data comparison with similar Project Unit<br>• Data comparison with standard benchmark (Ashrae 90.1, Model National Energy Code for Building MNECB…)<br>• Data comparison with sector association.<br>• Project Unit Investigation for root cause analysis of data profile if outside range<br>• 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:<br>• Weighting balance. |
| QA/QC procedures to be applied | The SPSC system applies the following QC/QA procedures:<br>• Data comparison with past performance<br>• Data comparison with similar Project Unit<br>• Data comparison with Data comparison with sector association.<br>• Project Unit Investigation for root cause analysis of data profile if outside range<br>• 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 four latest monitoring reports which were verified and dated on: February 2014, November 2017, July 2019, and September 2020, which is in accordance with the VM0018 methodological requirements. All four previous verification reports were reviewed, controlled, and accepted by the VCS program staff. The monitoring plan is described in more details below, as well as in Appendix E.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 E.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

For each baseline period, a random sample of Project Units will be audited during the course of the project. The sample size will be the square root of the Project Units participating to the SCSP system. Evidence of the audit are kept and discrepancies will be analyzed as well as potential impact on related Project Units.

- The project proponent has a documented procedure for determining the sample to be taken when verifying Project Units available to the VVB in the Annexure B-C.

# 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 management

**$EF_3$** = $CO_2e$ emission factor of the fossil fuel

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

Table 3 below shows the calculation for baseline emissions for each Client Facility and their PAIs. In addition, for this fifth monitoring report, each Client Facility (members) of the Sustainable Community projects 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 spreadsheet.

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 3.

**Table 3: Quantification of baseline emissions 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 | 156,017.51 | × | 0.002735 | = | 426.67 | 426 |
| Client Facility 0108 | 1 | 19,283.60 | × | 0.002735 | = | 52.74 | 72 |
| | 1 | 6,996.40 | × | 0.002790 | = | 19.52 | |
| Client Facility 0301 | 1 | 107,481.40 | × | 0.002735 | = | 293.93 | 293 |
| Client Facility 0302 | 1 | 37,691.38 | × | 0.002735 | = | 103.08 | 263 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 9,012.40 | × | 0.002790 | = | 25.14 | |
| | 1 | 37,691.38 | × | 0.002735 | = | 103.08 | |
| | 1 | 4,849.21 | × | 0.002735 | = | 13.26 | |
| | 1 | 1.75 | × | 3.012704 | = | 5.26 | |
| | 1 | 9.72 | × | 1.470054 | = | 14.29 | |
| 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 | = | 1,642.92 | 1,642 |
| Client Facility 0307 | 1 | 15,713.75 | × | 0.001544 | = | 24.26 | 24 |
| Client Facility 0308 | 1 | 14,064.0 | × | 0.002735 | = | 38.46 | 58 |
| | 1 | 7,145.80 | × | 0.002735 | = | 19.54 | |
| Client Facility 0309 | 1 | 3,989.61 | × | 0.002735 | = | 10.91 | 191 |
| | 2 | 323.31 | × | 0.562614 | = | 181.90 | |
| Client Facility 0403 | 1 | 176,335.0 | × | 0.001544 | = | 272.26 | 342 |
| | 1 | 125.42 | × | 0.562614 | = | 70.56 | |
| 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 | 2,606 |
| | 1 | 9,941.90 | × | 0.002735 | = | 27.19 | |
| | 1 | 4,112.74 | × | 0.002735 | = | 11.25 | |
| | 1 | 127,692.47 | × | 0.002735 | = | 349.20 | |
| | 1 | 507.11 | × | 3.93414 | = | 1,995.04 | |
| | 1 | 0.00 | × | 0.68324 | = | 0.00 | |
| | 1 | 218.72 | × | 0.68324 | = | 149.44 | |
| Client Facility 0507 | 1 | 13,437.14 | × | 0.002735 | = | 36.75 | 1,124 |
| | 3 | 399.89 | × | 1.78524 | = | 713.90 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 16 | 548.88 | × | 0.68324 | = | 375.02 | |
| 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 | 205.49 | × | 3.93414 | = | 808.40 | 808 |
| Client Facility 0601 | 9 | 1,314,376.20 | × | 0.001889 | = | 2,483.28 | 12,653 |
| | 1 | 17,495.00 | × | 0.001544 | = | 27.01 | |
| | 1 | 5,682.00 | × | 1.78524 | = | 10,143.73 | |
| Client Facility 0602 | 1 | 6,301.09 | × | 0.002735 | = | 17.23 | 1,699 |
| | | 168,396.40 | × | 0.001889 | = | 318.15 | |
| | 1 | 0.00 | × | 0.001889 | = | 0 | |
| | 1 | 722,199.95 | × | 0.001889 | = | 1,364.47 | |
| Client Facility 0603 | 0 | - | × | - | = | - | - |
| Client Facility 0604 | 1 | 4,314.98 | × | 2.48683 | = | 10,730.62 | 18,645 |
| | 1 | 1,258,045.56 | × | 0.001889 | = | 2,376.85 | |
| | 1 | 42,742.99 | × | 0.001889 | = | 80.75 | |
| | 1 | 386,754.75 | × | 0.001889 | = | 730.70 | |
| | 1 | 138,498.12 | × | 0.002735 | = | 378.75 | |
| | 1 | 1,394.69 | × | 2.48683 | = | 3,468.36 | |
| | | 569,891.60 | × | 0.001544 | = | 879.90 | |
| Client Facility 0605 | 1 | 157,921.90 | × | 0.002735 | = | 431.87 | 1,001 |
| | 1 | 89,469.42 | × | 0.002790 | = | 249.60 | |
| | | 114,793.37 | × | 0.002790 | = | 320.25 | |
| Client Facility 0701 | 1 | 3,984.20 | × | 0.001889 | = | 7.53 | 7 |
| Client Facility 0702 | 1 | 94,352.80 | × | 0.001544 | = | 145.68 | 600 |
| | | 190,380.00 | × | 0.000036 | = | 6.85 | |
| | | 144,421.02 | × | 0.001544 | = | 222.97 | |
| | 1 | 145,864.24 | × | 0.001544 | = | 225.20 | |
| Client Facility 0703 | 0 | - | × | - | = | - | - |
| Client Facility 0704 | 1 | 20,549.00 | × | 0.002735 | = | 56.20 | 56 |
| Client Facility 0705 | 0 | - | × | - | = | - | - |
| Client Facility 0706 | 1 | 2,321,736.66 | × | 0.001764 | = | 4,095.51 | 13,207 |
| | | 48,736.61 | × | 0.001544 | = | 75.25 | |
| | 1 | 561,463.29 | × | 0.001764 | = | 990.41 | |
| | | 11,785.93 | × | 0.001544 | = | 18.20 | |
| | 1 | 361,955.68 | × | 0.001764 | = | 638.48 | |
| | | 7,597.97 | × | 0.001544 | = | 11.73 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 263,463.84 | × | 0.001764 | = | 464.75 | |
| | | 5,530.49 | × | 0.001544 | = | 8.54 | |
| | 1 | 705,040.22 | × | 0.001764 | = | 1,243.68 | |
| | | 14,799.82 | × | 0.001544 | = | 22.85 | |
| | 1 | 476,331.36 | × | 0.001764 | = | 840.24 | |
| | | 9,998.88 | × | 0.001544 | = | 15.44 | |
| | 1 | 1,547,834.95 | × | 0.001764 | = | 2,730.36 | |
| | | 32,491.30 | × | 0.001544 | = | 50.17 | |
| | 1 | 45,500.00 | × | 0.044 | = | 2,002.00 | |
| Client Facility 0707 | 4 | 14,231.26 | × | 2.08494 | = | 29,671.32 | |
| | 4 | 10,133.50 | × | 2.08494 | = | 21,127.74 | |
| | 4 | 753.37 | × | 0.68324 | = | 514.73 | |
| | 4 | 136.53 | × | 0.68324 | = | 93.35 | 52,286 |
| | 4 | 136.63 | × | 2.08494 | = | 284.64 | |
| | 4 | 285.22 | × | 2.08494 | = | 594.67 | |
| | 24 | - | × | - | = | - | |
| Client Facility 0709 | 0 | - | × | - | = | - | - |
| Client Facility 0710 | 1 | 1,012,674.00 | × | 0.003146 | = | 3,186.24 | |
| | 1 | 2.76 | × | 3.239565 | = | 8.94 | 59,248 |
| | 85 | 29,233.00 | × | 1.91748 | = | 56,053.69 | |
| Client Facility 0711 | 0 | - | × | - | = | - | - |
| Client Facility 0712 | 1 | 34.30 | × | 3.99 | = | 136.85 | |
| | 1 | 0.00 | × | 3.239565 | = | 0.0 | 860 |
| | 1 | 197.90 | × | 3.65864 | = | 724.04 | |
| Client Facility 0713 | 0 | - | × | - | = | - | - |
| Client Facility 0714 | 0 | - | × | - | = | - | - |
| Client Facility 0801 | 0 | - | × | - | = | - | - |
| Client Facility 0802 | 1 | 215,831.62 | × | 0.001544 | = | 333.24 | 333 |
| 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 | 32,187.68 | × | 1.78524 | = | 57,462.73 | 57,462 |
| Client Facility 0806 | 39 | 790.45 | × | 0.562614 | = | 444.72 | 444 |
| Client Facility 0808 | 15 | 23,955.00 | × | 1.78524 | = | 42,753 | 42,765 |
| Client Facility 0901 | 1 | 1,657.71 | × | 0.562614 | = | 932.65 | 5,128 |
| | 1 | 1,295.16 | × | 3.239565 | = | 4,195.75 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 0.00 | × | 2.08494 | = | 0 | |
| Client Facility 0902 | 0 | - | × | - | = | - | - |
| Client Facility 0903 | 0 | - | × | - | = | - | - |
| Client Facility 0905 | 0 | - | × | - | = | - | - |
| Client Facility 0910 | 1 | 20,131.58 | × | 0.00279 | = | 56.16 | |
| | 5 | 8,957.03 | × | 1.470054 | = | 13,167.32 | 13,543 |
| | 1 | 106.39 | × | 3.012704 | = | 320.52 | |
| Client Facility 1001 | 0 | - | × | - | = | - | - |
| Client Facility 1005 | 5 | 7,869,932.83 | × | 0.001544 | = | 12,151.05 | |
| | | 383,895.00 | × | 0.001889 | = | 725.30 | 21,210 |
| | 2 | 5,397,518.77 | × | 0.001544 | = | 8,333.68 | |
| 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 | 0.0 | × | 0.001889 | = | 0.0 | |
| | | 0.0 | × | 0.000002 | = | 0.0 | |
| | 1 | 0.0 | × | 0.001889 | = | 0.0 | |
| | | 0.0 | × | 0.000002 | = | 0.0 | |
| | 1 | 204,218.00 | × | 0.001889 | = | 385.83 | |
| | | 1,206,900.00 | × | 0.000002 | = | 2.46 | |
| | 1 | 43,802.00 | × | 0.001889 | = | 82.76 | |
| | | 120,907.00 | × | 0.000002 | = | 0.25 | |
| | 1 | 44,763.00 | × | 0.001889 | = | 84.57 | 1,156 |
| | | 219,126.00 | × | 0.000002 | = | 0.45 | |
| | 1 | 133,946.00 | × | 0.001889 | = | 253.07 | |
| | | 830,400.00 | × | 0.000002 | = | 1.69 | |
| | 1 | 0.00 | × | 0.001889 | = | 0.0 | |
| | | 0.00 | × | 0.000002 | = | 0.0 | |
| | 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 | 20 | 825,960.0 | × | 0.002422 | = | 2,000.77 | |
| | | 152,148.0 | × | 0.002735 | = | 416.08 | 7,697 |
| | 3 | 2,958.18 | × | 1.78524 | = | 5,281.06 | |
| Client Facility 1102 | 1 | 51,182.00 | × | 0.002735 | = | 139.97 | 139 |
| Client Facility 1103 | 12 | 211.36 | × | 2.08494 | = | 440.67 | |
| | 12 | 2,511.67 | × | 1.470054 | = | 3,692.29 | 17,701 |
| | 12 | 3,893.21 | × | 0.562614 | = | 2,190.37 | |
| | 12 | 3,512.28 | × | 3.239565 | = | 11,378.26 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Client Facility 1108 | 1 | 3,887.90 | × | 1.470054 | = | 5,715.42 | 12,406 |
| | 1 | 212.67 | × | 0.562614 | = | 119.65 | |
| | 1 | 2,028.51 | × | 3.239565 | = | 6,571.50 | |
| 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 | 135,603.05 | × | 0.002735 | = | 370.84 | 370 |
| Client Facility 1206 | 0 | - | × | - | = | - | - |
| Client Facility 1207 | 1 | 538.79 | × | 1.470054 | = | 792.05 | 6,056 |
| | 1 | 1,291.62 | × | 0.562614 | = | 726.68 | |
| | 1 | 1,400.64 | × | 3.239565 | = | 4,537.48 | |
| Client Facility 1208 | 1 | 60,211.30 | × | 0.002735 | = | 164.66 | 166 |
| | | 703,200.0 | × | 0.000002 | = | 1.43 | |
| Client Facility 1209 | 1 | 5,096.00 | × | 0.002735 | = | 13.94 | 13 |
| Client Facility 1210 | 18 | 275,711.00 | × | 0.002422 | = | 667.87 | 667 |
| Client Facility 1302 | 1 | 244.80 | × | 3.239565 | = | 793.04 | 876 |
| | 1 | 147.99 | × | 0.562614 | = | 83.26 | |
| Client Facility 1303 | 1 | 29,455.00 | × | 0.002735 | = | 80.55 | 80 |
| Client Facility 1304 | 0 | - | × | - | = | - | - |
| Client Facility 1305 | 0 | - | × | - | = | - | - |
| Client Facility 1308 | 1 | 3.00 | × | 0.562614 | = | 1.69 | 12 |
| | 1 | 7.00 | × | 1.578947 | = | 11.05 | |
| Client Facility 1309 | 1 | 4,088.50 | × | 0.001544 | = | 6.31 | 23 |
| | 1 | 1.25 | × | 3.012704 | = | 3.77 | |
| | 1 | 4.37 | × | 0.862069 | = | 3.77 | |
| | 1 | 3.38 | × | 3.012704 | = | 10.18 | |
| Client Facility 1312 | 10 | 2,162,404.13 | × | 0.002735 | = | 5,913.60 | 71,039 |
| | 5 | 5,715,668.98 | × | 0.002735 | = | 15,630.85 | |
| | 5 | 2,697,317.84 | × | 0.002735 | = | 7,376.45 | |
| | 15 | 23,593.00 | × | 1.78524 | = | 42,119.17 | |
| Client Facility 1314 | 33 | 2,500.00 | × | 2.08494 | = | 5,212.35 | 5,212 |
| Client Facility 1330 | 2 | 8,000.0 | × | 0.002361 | = | 18.89 | 83 |
| | 1 | 20.24 | × | 3.239569 | = | 65.57 | |
| Client Facility 1401 | 0 | - | × | - | = | - | - |
| Client Facility 1403 | 0 | - | × | - | = | - | - |
| Client Facility 1404 | 0 | - | × | - | = | - | - |
| Client Facility 1601 | 1 | 957,293.14 | × | 0.001764 | = | 1,688.65 | 158,258 |
| | | 24,601.91 | × | 0.001544 | = | 37.98 | |
| | 1 | 957,293.14 | × | 0.001764 | = | 1,688.65 | |
| | | 24,601.91 | × | 0.001544 | = | 37.98 | |
| | 1 | 957,293.14 | × | 0.001764 | = | 1,688.65 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 24,601.91 | × | 0.001544 | = | 37.98 | |
| | 1 | 3,727,257.38 | × | 0.001764 | = | 6,574.82 | |
| | 3 | 20,159.00 | × | 1.578947 | = | 31,829.99 | |
| | 50 | 72,627.50 | × | 1.578947 | = | 114,674.97 | |
| Client Facility 1602 | 0 | - | × | - | = | - | - |
| Client Facility 1603 | 1 | 13,694.00 | × | 0.001889 | = | 25.87 | 3,983 |
| | | 479,000.00 | × | 0.000002 | = | 0.98 | |
| | 1 | 1,787.74 | × | 1.470054 | = | 2,628.07 | |
| | 1 | 1,159.72 | × | 1.146 | = | 1,329.04 | |
| Client Facility 1604 | 0 | - | × | - | = | - | - |
| Client Facility 1605 | 0 | - | × | - | = | - | - |
| Client Facility 0002 | 76 | 29,814,998.02 | × | 0.00154398 | = | 46,033.88 | 108,090 |
| | 12 | 39,303.00 | × | 1.578947 | = | 62,057.35 | |
| Client Facility 0003 | 34 | 1,996,753.00 | × | 0.0451 | = | 90,053.56 | 90,053 |
| **Total:** | **735** | | | | | | **796,229** |

BEy values have been rounded down for conservativeness.

The baseline emissions BEy = 796,229 $tCO_2e$

## 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 takes into account 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 project emissions for each Client Facility and their PAIs. In addition, for this fifth monitoring report, each Client Facility (members) of the Sustainable

Community projects 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.

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.

**Table 4: Quantification of reduction emissions 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 | 230.22 | × | 0.000036 | = | 0.01 | 99 |
| | | 36,425.30 | × | 0.002735 | = | 99.61 | |
| Client Facility 0108 | 1 | 15.58 | × | 0.000036 | = | 0.0006 | 12 |
| | | 4,521.90 | × | 0.002735 | = | 12.37 | |
| | 1 | 267,962.12 | × | 0.000002 | = | 0.55 | |
| Client Facility 0301 | 1 | 101.36 | × | 0.000036 | = | 0.0036 | 214 |
| | | 78,382.80 | × | 0.002735 | = | 214.36 | |
| Client Facility 0302 | 1 | 32,568.40 | × | 0.001544 | = | 50.29 | 208 |
| | | 16,281.00 | × | 0.002735 | = | 44.52 | |
| | 1 | 4,506.20 | × | 0.002799 | = | 12.57 | |
| | 1 | 37,110.93 | × | 0.002735 | = | 101.49 | |
| | 1 | 9.72 | × | 0.000036 | = | 0.00035 | |
| | 1 | 0.0 | × | 0.0 | = | 0.0 | |
| | 1 | 0.0 | × | 0.0 | = | 0.0 | |
| Client Facility 0303 | 0 | - | × | - | = | - | - |
| Client Facility 0305 | 1 | 403.04 | × | 0.000036 | = | 0.01 | 10 |
| | | 3,846.30 | × | 0.002735 | = | 10.52 | |
| Client Facility 0306 | 34 | 658.79 | × | 0.000036 | = | 0.02 | 5 |
| | | 2,911,242.49 | × | 0.000002 | = | 5.93 | |
| Client Facility 0307 | 1 | 274,684.00 | × | 0.000002 | = | 0.56 | 19 |
| | | 12,358.00 | × | 0.001544 | = | 19.08 | |
| Client Facility 0308 | 1 | 330,480.00 | × | 0.000002 | = | 0.67 | 5 |
| | 1 | 1,708.00 | × | 0.002735 | = | 4.67 | |
| Client Facility 0309 | 1 | 8.00 | × | 0.000036 | = | 0.0003 | 0 |
| | 2 | 0.00 | × | 0 | = | 0.0 | |
| Client Facility 0403 | 1 | 377.36 | × | 0.000036 | = | 0.014 | 0 |
| | 1 | 0.00 | × | 0 | = | 0 | |
| Client Facility 0404 | 1 | 474,720.00 | × | 0.000002 | = | 0.97 | 14 |
| | 1 | 312,000.00 | × | 0.000002 | = | 0.64 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 320,580.00 | × | 0.000002 | = | 0.65 | |
| | 1 | 1,272,000.00 | × | 0.000002 | = | 2.59 | |
| | 1 | 2,258,100.00 | × | 0.000002 | = | 4.61 | |
| | 1 | 189,390.00 | × | 0.000002 | = | 0.39 | |
| | 1 | 473,760.00 | × | 0.000002 | = | 0.97 | |
| | 1 | 304,920.00 | × | 0.000002 | = | 0.62 | |
| | 1 | 220,320.00 | × | 0.000002 | = | 0.45 | |
| | 1 | 314,580.00 | × | 0.000002 | = | 0.64 | |
| | 1 | 212,400.00 | × | 0.000002 | = | 0.43 | |
| | 1 | 182,040.00 | × | 0.000002 | = | 0.37 | |
| | 1 | 296,205.00 | × | 0.000002 | = | 0.60 | |
| | 1 | 186,660.00 | × | 0.000002 | = | 0.38 | |
| Client Facility 0502 | 1 | 843.95 | × | 0.000036 | = | 0.03 | 7 |
| | | 2,779.35 | × | 0.002735 | = | 7.6 | |
| Client Facility 0503 | 0 | - | × | - | = | - | - |
| Client Facility 0504 | 1 | 409,760.00 | × | 0.000002 | = | 0.84 | |
| | | 5,833.00 | × | 0.002735 | = | 15.95 | |
| | 1 | 205,680.00 | × | 0.000002 | = | 0.42 | |
| | 1 | 5,909.00 | × | 0.001544 | = | 9.12 | 29 |
| | 2 | 1,365,600.00 | × | 0.000002 | = | 2.79 | |
| | 1 | 0.00 | × | 0.0 | = | 0 | |
| | 1 | 0.00 | × | 0.0 | = | 0 | |
| Client Facility 0507 | 1 | 0.00 | × | 0.002735 | = | 0 | |
| | 3 | 0.00 | × | 0.00 | = | 0 | 0 |
| | 16 | 0.00 | × | 0.00 | = | 0 | |
| Client Facility 0508 | 1 | 0.00 | × | 0.002735 | = | 0 | |
| | 1 | 0.00 | × | 0.002735 | = | 0 | |
| | 1 | 0.00 | × | 0.002735 | = | 0 | |
| | 1 | 0.00 | × | 0.002735 | = | 0 | 0 |
| | 1 | 0.00 | × | 0.002735 | = | 0 | |
| | 1 | 0.00 | × | 0.002735 | = | 0 | |
| | 1 | 0.00 | × | 0.002735 | = | 0 | |
| Client Facility 0512 | 1 | 0.00 | × | 0.00 | = | 0 | 0 |
| Client Facility 0601 | 9 | 2,596,694.45 | × | 0.000036 | = | 93.39 | |
| | 1 | 0.00 | × | 0.001544 | = | 0 | 93 |
| | 1 | 0.00 | × | 0.00 | = | 0 | |
| Client Facility 0602 | 1 | 106,134.28 | × | 0.001889 | = | 200.52 | |
| | 1 | 0.00 | × | 0.001889 | = | 0 | 200 |
| | 1 | 0.00 | × | 0.001889 | = | 0 | |
| Client Facility 0603 | 0 | - | × | - | = | - | - |
| Client Facility 0604 | 1 | 2,049.71 | × | 2.48683 | = | 5,097.28 | 6,261 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 0.00 | × | 0.001889 | = | 0 | |
| | 1 | 0.00 | × | 0.001889 | = | 0 | |
| | 1 | 0.00 | × | 0.001889 | = | 0 | |
| | 1 | 169,278.31 | × | 0.001544 | = | 261.36 | |
| | 1 | 569,891.60 | × | 0.001544 | = | 879.90 | |
| | | 11,169,165.00 | × | 0.000002 | = | 22.78 | |
| Client Facility 0605 | 1 | 76,397.20 | × | 0.002735 | = | 208.93 | |
| | 1 | 29,386.40 | × | 0.002361 | = | 69.39 | 334 |
| | | 20,308.31 | × | 0.002790 | = | 56.66 | |
| Client Facility 0701 | 1 | 45,420.00 | × | 0.000002 | = | 0.09 | 0 |
| Client Facility 0702 | 1 | 94,352.80 | × | 0.001544 | = | 145.68 | |
| | | 190,380.00 | × | 0.000036 | = | 6.85 | 375 |
| | 1 | 144,421.02 | × | 0.001544 | = | 222.97 | |
| Client Facility 0703 | 0 | - | × | - | = | - | - |
| Client Facility 0704 | 1 | 160,141.00 | × | 0.000002 | = | 0.33 | 0 |
| Client Facility 0705 | 0 | - | × | - | = | - | - |
| Client Facility 0706 | 1 | 741,874.73 | × | 0.001544 | = | 1,145.44 | |
| | 1 | 179,406.84 | × | 0.001544 | = | 277.00 | |
| | 1 | 115,657.29 | × | 0.001544 | = | 178.57 | |
| | 1 | 84,185.76 | × | 0.001544 | = | 129.98 | |
| | 1 | 225,284.61 | × | 0.001544 | = | 347.84 | 3,077 |
| | 1 | 152,204.26 | × | 0.001544 | = | 235.00 | |
| | 1 | 494,586.52 | × | 0.001544 | = | 763.63 | |
| | 1 | 0.00 | × | 0 | = | 0 | |
| Client Facility 0707 | 4 | 0.00 | × | 0 | = | 0 | |
| | 4 | 0.00 | × | 0 | = | 0 | |
| | 4 | 0.00 | × | 0 | = | 0 | |
| | 4 | 0.00 | × | 0 | = | 0 | 0 |
| | 4 | 0.00 | × | 0 | = | 0 | |
| | 4 | 0.00 | × | 0 | = | 0 | |
| | 24 | 0.00 | × | 0 | = | 0 | |
| Client Facility 0709 | 0 | - | × | - | = | - | - |
| Client Facility 0710 | 1 | 11,631.00 | × | 0.000036 | = | 0.42 | |
| | 1 | 0.00 | × | 0.0 | = | 0 | 0 |
| | 85 | 0.00 | × | 0.0 | = | 0 | |
| Client Facility 0711 | 0 | - | × | - | = | - | - |
| Client Facility 0712 | 1 | 0.00 | × | 0.0 | = | 0 | |
| | 1 | 0.00 | × | 0.0 | = | 0 | 0 |
| | 1 | 0.00 | × | 0.0 | = | 0 | |
| Client Facility 0713 | 0 | - | × | - | = | - | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Client Facility 0714 | 0 | - | × | - | = | - | - |
| Client Facility 0801 | 0 | - | × | - | = | - | - |
| Client Facility 0802 | 1 | 629,100.00 | × | 0.000036 | = | 22.63 | 22 |
| Client Facility 0803 | 0 | - | × | - | = | - | - |
| Client Facility 0804 | 1 | 146,860.00 | × | 0.000002 | = | 0.30 | 2 |
| | 1 | 987,480.00 | × | 0.000002 | = | 2.01 | |
| Client Facility 0805 | 14 | 0.00 | × | 0 | = | 0 | 0 |
| Client Facility 0806 | 39 | 0.00 | × | 0 | = | 0 | 0 |
| Client Facility 0808 | 15 | 0.00 | × | 0 | = | 0 | 0 |
| Client Facility 0901 | 1 | 0.00 | × | 0 | = | 0 | 0 |
| | 1 | 0.00 | × | 0 | = | 0 | |
| | 1 | 0.00 | × | 0 | = | 0 | |
| Client Facility 0902 | 0 | - | × | - | = | - | -- |
| Client Facility 0903 | 0 | - | × | - | = | - | - |
| Client Facility 0905 | 0 | - | × | - | = | - | - |
| Client Facility 0910 | 1 | 214,200.00 | × | 0.000002 | = | 0.44 | 0 |
| | 5 | 0.00 | × | 0 | = | 0 | |
| | 1 | 0.00 | × | 0 | = | 0 | |
| Client Facility 1001 | 0 | - | × | - | = | - | - |
| Client Facility 1005 | 5 | 9,959.40 | × | 0.000036 | = | 0.36 | 2,182 |
| | | 721,306.00 | × | 0.001889 | = | 1,362.78 | |
| | 2 | 6,830.56 | × | 0.000036 | = | 0.25 | |
| | | 530,803.00 | × | 0.001544 | = | 819.55 | |
| Client Facility 1008 | 1 | 208,526.00 | × | 0.000002 | = | 0.43 | 2 |
| | | 1,465.50 | × | 0.001544 | = | 2.26 | |
| Client Facility 1011 | 1 | 0.00 | × | 0.001889 | = | 0 | 803 |
| | | 0.00 | × | 0.000002 | = | 0 | |
| | 1 | 0.00 | × | 0.001889 | = | 0 | |
| | | 0.00 | × | 0.000002 | = | 0 | |
| | 1 | 152,387.00 | × | 0.001889 | = | 287.91 | |
| | | 1,517,400.00 | × | 0.000002 | = | 3.10 | |
| | 1 | 35,224.00 | × | 0.001889 | = | 66.55 | |
| | | 141,109.00 | × | 0.000002 | = | 0.29 | |
| | 1 | 41,837.00 | × | 0.001889 | = | 79.04 | |
| | | 250,450.00 | × | 0.000002 | = | 0.51 | |
| | 1 | 83,678.00 | × | 0.001889 | = | 158.09 | |
| | | 817,680.00 | × | 0.000002 | = | 1.67 | |
| | 1 | 0.00 | × | 0.001889 | = | 0 | |
| | | 0.00 | × | 0.000002 | = | 0 | |
| | 1 | 82,448.00 | × | 0.001889 | = | 155.77 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 1,452,000.00 | × | 0.000002 | = | 2.96 | |
| | 1 | 24,937.00 | × | 0.001889 | = | 47.11 | |
| | | 141,780.00 | × | 0.000002 | = | 0.29 | |
| Client Facility 1101 | 20 | 2,958.18 | × | 0.000036 | = | 0.11 | |
| | | 153,500.00 | × | 0.002422 | = | 371.83 | 371 |
| | 3 | 0.00 | × | 0 | = | 0 | |
| Client Facility 1102 | 1 | 400.00 | × | 0.002735 | = | 1.09 | 1 |
| | | 224,480.00 | × | 0.000002 | = | 0.46 | |
| Client Facility 1103 | 12 | 0.00 | × | 0.0 | = | 0 | |
| | 12 | 0.00 | × | 0.0 | = | 0 | 0 |
| | 12 | 0.00 | × | 0.0 | = | 0 | |
| | 12 | 0.00 | × | 0.0 | = | 0 | |
| Client Facility 1108 | 1 | 0.00 | × | 0.0 | = | 0 | |
| | 1 | 0.00 | × | 0.0 | = | 0 | 0 |
| | 1 | 0.00 | × | 0.0 | = | 0 | |
| Client Facility 1201 | 1 | 300,838.00 | × | 0.000002 | = | 0.6 | 0 |
| Client Facility 1204 | 1 | 3,515.00 | × | 0.002735 | = | 9.61 | 9 |
| Client Facility 1205 | 1 | 92,392.70 | × | 0.002735 | = | 252.67 | 304 |
| | | 33,663.60 | × | 0.001544 | = | 51.98 | |
| Client Facility 1206 | 0 | - | × | - | = | - | - |
| Client Facility 1207 | 1 | 0.00 | × | 0 | = | 0 | |
| | 1 | 0.00 | × | 0 | = | 0 | 0 |
| | 1 | 0.00 | × | 0 | = | 0 | |
| Client Facility 1208 | 1 | 0.00 | × | 0.002735 | = | 0 | 2 |
| | | 1,029,600.00 | × | 0.000002 | = | 2.10 | |
| Client Facility 1209 | 1 | 16.00 | × | 0.000036 | = | 0.001 | |
| Client Facility 1210 | 18 | 29,600.00 | × | 0.002422 | = | 71.70 | 71 |
| | | 514.11 | × | 0.000036 | = | 0.20 | |
| Client Facility 1302 | 1 | 0.00 | × | 0 | = | 0 | 0 |
| | 1 | 0.00 | × | 0 | = | 0 | |
| Client Facility 1303 | 1 | 258,243.00 | × | 0.000002 | = | 0.53 | 0 |
| Client Facility 1304 | 0 | - | × | - | = | - | - |
| Client Facility 1305 | 0 | - | × | - | = | - | - |
| Client Facility 1308 | 1 | 0.00 | × | 0 | = | 0 | 0 |
| | 1 | 0.00 | × | 0 | = | 0 | |
| Client Facility 1309 | 1 | 3,145.00 | × | 0.001544 | = | 4.86 | |
| | 1 | 0.00 | × | 0 | = | 0 | 4 |
| | 1 | 0.00 | × | 0 | = | 0 | |
| | 1 | 0.00 | × | 0 | = | 0 | |
| Client Facility 1312 | 10 | 4,336.07 | × | 0.000036 | = | 0.16 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 5 | 11,461.11 | × | 0.000036 | = | 0.41 | |
| | 5 | 5,408.68 | × | 0.000036 | = | 0.19 | |
| | 15 | 0.00 | × | 0 | = | 0 | |
| Client Facility 1314 | 33 | 0.00 | × | 0 | = | 0 | 0 |
| Client Facility 1330 | 2 | 0.00 | × | 0.002361 | = | 0 | 0 |
| | 1 | 0.00 | × | 0 | = | 0 | |
| Client Facility 1401 | 0 | - | × | - | = | - | - |
| Client Facility 1403 | 0 | - | × | - | = | - | - |
| Client Facility 1404 | 0 | - | × | - | = | - | - |
| Client Facility 1601 | 1 | 238,943.67 | × | 0.001764 | = | 421.49 | 1,340 |
| | | 16,215.00 | × | 0.001544 | = | 25.04 | |
| | | 6,719.67 | × | 0.000036 | = | 0.24 | |
| | 1 | 238,943.67 | × | 0.001764 | = | 421.49 | |
| | | 16,215.00 | × | 0.001544 | = | 25.04 | |
| | | 6,719.67 | × | 0.000036 | = | 0.24 | |
| | 1 | 238,943.67 | × | 0.001764 | = | 421.49 | |
| | | 16,215.00 | × | 0.001544 | = | 25.04 | |
| | | 6,719.67 | × | 0.000036 | = | 0.24 | |
| | 1 | 5,521.00 | × | 0.000036 | = | 0.20 | |
| | 3 | 0.00 | × | 0 | = | 0 | |
| | 50 | 0.00 | × | 0 | = | 0 | |
| Client Facility 1602 | 0 | - | × | - | = | - | - |
| Client Facility 1603 | 1 | 5,924.00 | × | 0.001889 | = | 11.19 | 13 |
| | | 891,630.00 | × | 0.000002 | = | 1.82 | |
| | 1 | 0.00 | × | 0 | = | 0 | |
| | 1 | 0.00 | × | 0 | = | 0 | |
| Client Facility 1604 | 0 | - | × | - | = | - | - |
| Client Facility 1605 | 0 | - | × | - | = | - | - |
| Client Facility 0002 | 76 | 39,303.00 | × | 0.000036 | = | 1.41 | 1 |
| | 12 | 0.00 | × | 0 | = | 0 | |
| Client Facility 0003 | 34 | 1,996,753.00 | × | 0.000061 | = | 121.80 | 121 |
| **Total:** | **735** | | | | | | **16,210** |

PEy values have been rounded down for conservativeness.

The project emissions PEy = 16,210 $tCO_2e$

## 5.3 Leakage

At Project Unit level, the leakage, during the period January First 2019 – December 31th, 2019, 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, $ER_y = BE_y - PE_y - LE_y$

The net GHG Emission Reductions of the Sustainable Community project are as follows:

| Year | Baseline emissions or removals ($tCO_2e$) | Project emissions or removals ($tCO_2e$) | Leakage emissions ($tCO_2e$) | Net GHG emission reductions or removals ($tCO_2e$) |
|---|---|---|---|---|
| 2019 | *796,229* | *16,210* | *De minimus* | *780,019* |
| **Total** | *796,229* | *16,210* | *De minimus* | *780,019* |

The 780,019 $tCO_2e$ representing the net GHG emission reductions of the year 2019 written in the above Table included the net GHG emissions reductions (all from sectorial scope 3 and 13) realized after January 1st, 2019. The net GHG emissions reductions from sectorial scope 3, realized after January 1st, 2019, represent 232,807 $tCO_2e$.

# APPENDIX:

**Appendix A:** Addressing double counting risks concerns.

**Appendix B:** Details of summarized results and social impacts.

**Appendix C:** Detailed results by Client Facilities.

**Appendix D:** The results for the emission reductions of 2015 to 2018.

**Appendix E:** Data, parameters, and monitoring plan.

# 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 four 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 of the above entities 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 participate 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 2019, 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 311 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 2019 to December 31st 2019, scope 3 emissions account for 232,807 $tCO_2e$ 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 data sheet that regroups all the yearly eligible baseline and projects GHG emissions per Client Facility participating to this monitoring report. The summarized data sheet **is available upon request as an annexure (B-1)** due to it containing Confidential Information on Client Facilities.

# Appendix C: Detailed results by Client Facilities

## C-1 Geodetic coordinates by Client Facilities

Compiled geodetic coordinates of each Client Facility (59) included in this Monitoring Report.

| Client Facilities | Coordinates |
|---|---|
| Client Facility 0101 | 48.354853, -67.220887 |
| Client Facility 0108 | 48.471982, -67.571899 |
| Client Facility 0301 | 48.119090, -69.174878 |
| Client Facility 0302 | 48.080021, -69.109391 |
| Client Facility 0305 | 48.000770, -69.046548 |
| Client Facility 0306 | 47.937789, -68.608633 |
| Client Facility 0307 | 47.643385, -68.839981 |
| Client Facility 0308 | 47.43586, -69.04228 |
| Client Facility 0309 | 47.612901, -68.796532 |
| Client Facility 0403 | 48.054898, -69.248080 |
| Client Facility 0404 | 47.828750, -69.532390 |
| Client Facility 0502 | 47.356000, -70.031288 |
| Client Facility 0504 | 47.369994, -70.032235 |
| Client Facility 0507 | 47.528225, -69.817804 |
| Client Facility 0508 | 47.373126, -70.029342 |
| Client Facility 0512 | 47.529550, -69.812089 |
| Client Facility 0601 | 46.571437, -71.828294 |
| Client Facility 0602 | 46.5419578, -71.6342007 |
| Client Facility 0604 | 46.623162, -71.735126 |
| Client Facility 0605 | 46.638839, -71.519778 |
| Client Facility 0701 | 48.414958, -71.237720 |
| Client Facility 0702 | 48.661155, -70898466 |
| Client Facility 0704 | 48.308760, -71.107553 |
| Client Facility 0706 | 48.541073, -71.290795 |
| Client Facility 0707 | 48.366757, -71.139097 |
| Client Facility 0710 | 48.902331, -71.768914 |
| Client Facility 0712 | 48.409000, -71.223602 |
| Client Facility 0802 | 46.460017, -72.843659 |
| Client Facility 0804 | 46.255756, -72.940881 |
| Client Facility 0805 | 46.258007, -72.950464 |
| Client Facility 0806 | 46.374607, -72.551147 |
| Client Facility 0808 | 46.426520, -73.016224 |
| Client Facility 0901 | 45.858103, -74.069785 |
| Client Facility 0910 | 45.620285, -74.451507 |
| Client Facility 1005 | 46.124070, -74.450220 |
| Client Facility 1008 | 45.895721, -74.152641 |
| Client Facility 1011 | 46.048040, -74.287285 |
| Client Facility 1101 | 46.426510, -74.922357 |
| Client Facility 1102 | 47.524229, -75.064996 |
| Client Facility 1103 | 46.539322, -75.479669 |
| Client Facility 1108 | 46.322196, -74.799753 |
| Client Facility 1201 | 48.805898, -79.205559 |
| Client Facility 1204 | 48.806592, -79.206748 |
| Client Facility 1205 | 48.792539, -79.201016 |
| Client Facility 1207 | 47.233875, -79.363804 |
| Client Facility 1208 | 48.396016, -77.253293 |
| Client Facility 1209 | 48.662711, -78.685036 |
| Client Facility 1210 | 48.594931, -79.288216 |
| Client Facility 1302 | 45.618381, -75.018116 |
| Client Facility 1303 | 45.722485, -75.057769 |
| Client Facility 1308 | 45.590099, -75.305001 |
| Client Facility 1309 | 45.591565, -75.441166 |
| Client Facility 1312 | 45.660606, -75.023673 |
| Client Facility 1314 | 45.886897, -75.061938 |
| Client Facility 1330 | 45.712331, -74.887887 |
| Client Facility 1601 | 48.283775, -69.887924 |
| Client Facility 1603 | 45.866413, -72.479822 |
| Client Facility 0002 | 45.141688, -73.664789 |
| Client Facility 0003 | 45.468337, -73.427146 |

# Appendix D: The results for the emission reductions of 2015 to 2018

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, 2018, as well as the emission reductions of 2019 for 27 new PAIs. The amount of these verified GHG reductions represents 362,971 $tCO_2e$. 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 emission reductions from 2015, 2016, 2017,2018 and 2019 (from new PAIs) reported in Table 1 below were not reported in previous monitoring reports, and therefore that there are no risks of double counting with the fourth monitoring report.

**Table 1 Appendix D**: list of GHG emission reductions quantified by vintage from the period January 1st, 2015 to December 31, 2018, and 27 new PAIs for the vintage 2019.

| | GHG emissions in ($tCO_2e$) | | | |
|---|---|---|---|---|
| **Year** | **Baseline emissions ($tCO_2e$)** | **Project emissions ($tCO_2e$)** | **Leakage emissions ($tCO_2e$)** | **Net emission reductions ($tCO_2e$)** |
| 2019 (ER from **excluded** new PAI) | 6,257 | 11 | de minimus | 6,246 |
| 2018 | 356,166 | 278 | de minimus | 355,888 |
| 2015-2017 | 852 | 15 | de minimus | 837 |
| **Total** | 363,275 | 304 | de minimus | 362,971 |

The net GHG emission reductions for the year 2015, 2016, 2017,2018, and 2019 (new PAIs), in the above Table include the net GHG emissions reductions from both sectorial scope 3 and 13. Detailed yearly calculations for each Client Facility are available upon request.

### Baseline Emission (2019 Excluded New PAIs)

The Client Facilities in **bold** in the table below are new Client Facilities with new PAIs that are excluded from this monitoring report. Client Facilities 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 0304** | 1 | 157,971.64 | × | 0.002735 | = | 432.01 | 432 |
| Client Facility 1108 | 1 | 2,232.01 | × | 0.562614 | = | 1,255.76 | 1,255 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Client Facility 1210 | 1 | 514.11 | × | 1.470054 | = | 755.77 | 755 |
| Client Facility 1312 | 7 | 1,683 | × | 1.785240 | = | 3,002 | 3,002 |
| **Client Facility 0004** | 1 | 1,882.64 | × | 0.003146 | = | 5.92 | |
| | 1 | 422.44 | × | 0.003146 | = | 1.33 | 7 |
| | 1 | 154.85 | × | 0.003146 | = | 0.49 | |
| Client Facility 0306 | 13 | 287,780.24 | × | 0.002735 | = | 787.00 | 787 |
| | 27 | | | | | | 6,257 |

BEy values have been rounded down for conservativeness.

The baseline emissions BEy for the 2019 vintage, excluded from this MR = 6,257 $tCO_2e$

### Project Emission (2019 Excluded New PAIs)

The Client Facilities in **bold** in the table below are new Client Facilities with new PAIs that are excluded from this monitoring report. Client Facilities 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 | 507,240.00 | × | 0.000002 | = | 1.03 | 1 |
| **Client Facility 0304** | 1 | 1,608.00 | × | 0.002735 | = | 4.40 | 4 |
| | | 301.00 | × | 0.000036 | = | 0.01 | 0 |
| Client Facility 1108 | 1 | 0 | × | 0 | = | 0 | 0 |
| Client Facility 1210 | 1 | 0 | × | 0 | = | 0 | 0 |
| Client Facility 1312 | 7 | 0 | × | 0 | = | 0 | 0 |
| **Client Facility 0004** | 1 | 2,701.00 | × | 0.000000 | = | 0 | 4 |
| | | 1,352.58 | × | 0.003146 | = | 4.25 | |
| | 1 | 4,989.00 | × | 0.000000 | = | 0 | |
| | 1 | 217.20 | × | 0.000036 | = | 0.01 | |
| Client Facility 0306 | 13 | 315.58 | × | 0.002735 | = | 0.01 | 2 |
| | | 1,394,560.06 | × | 0.000002 | = | 2.84 | |
| | 27 | | | | | | 11 |

PEy values have been rounded down for conservativeness.

The project emissions Pey for the 2019 vintage, excluded from this MR = 11 $tCO_2e$

# Appendix E: Data, parameters, and monitoring plan

All monitored data used to quantify the eligible GHG emissions reductions for each PAI in this monitoring report is supported by evidence, available to the VVB. A technical data sheet for each Client Facility participating to this monitoring report is available upon request in the Annexure C. Each generic PAI (Table 2) and each new PAI associated to generic PAI are monitored specifically as follows in the sections below.

## E.1 The Emission Factor (EF) used on this Monitoring Report

| | Sectorial Scope | Source, date issued | Energy Type | Unit | Value $tCO_2$/unit |
|---|---|---|---|---|---|
| 1 | 3 | MERN, August 16, 2019 | Butane | L | 0.001764 |
| 2 | 3 | MERN, August 16, 2019 | Biomass and bark residue | Mt | 0.000036 |
| 3 | 3 | MERN, August 16, 2019 | Diesel | L | 0.002789 |
| 4 | 3 | MERN, August 16, 2019 | Electricity | KWh | 0.000002 |
| 5 | 3 | MERN, August 16, 2019 | Gasoline | L | 0.002361 |
| 6 | 3 | MERN, August 16, 2019 | Coal coke | Mt | 0.002487 |
| 7 | 3 | MERN, August 16, 2019 | Natural gas | M3 | 0.001889 |
| 8 | 3 | MERN, August 16, 2019 | Fuel oil no. 2 | L | 0.002735 |
| 9 | 3 | MERN, August 16, 2019 | Fuel oil no. 6 | L | 0.003146 |
| 10 | 3 | Life Cycle Carbon Benefits of Aerospace Alloy Recycling[9] | Recycled metal (FeTi) | Mt | 0.000061 |
| 11 | 3 | MERN, August 16, 2019 | Propane | L | 0.001544 |

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

| | Sectorial Scope | Source, date issued | Energy Type | Unit | Value $tCO_2$/unit |
|---|---|---|---|---|---|
| 1 | 13 | USEPA, WARM version 15, 2020 | Food/Organic waste | Mt | 0.56 |
| 2 | 13 | USEPA, WARM version 15, 2020 | Corrugated container cardboard | Mt | 3.01 |
| 3 | 13 | USEPA, WARM version 15, 2020 | Mixed paper primarily residential | Mt | 3.23 |
| 4 | 13 | CDM scope 13; AMS-III-E | Sewage & septic sludges | Mt | 2.08 |
| 5 | 13 | USEPA, WARM version 15, 2020 | Asphalt shingles | Mt | 0.02 |
| 6 | 13 | USEPA, WARM version 15, 2020 | Medium density fiberboard | Mt | 1.47 |
| 7 | 13 | USEPA, WARM version 15, 2020 | Dimensional lumber | Mt | 1.57 |

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

[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

## E.2 Data and parameter description /PAI generic

### Table 4 Data and Parameter PAI (generic) I Biomass Energy Project

**Data and Parameters: Generic PAI 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 ($\Sigma$ $CO_2/CH_4/N_2O$) | EF Butane ($\Sigma$ $CO_2/CH_4/N_2O$) | EF Diesel ($\Sigma$ $CO_2/CH_4/N_2O$) | EF Electricity ($\Sigma$ $CO_2/CH_4/N_2O$) |
| 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 Determinatior | 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 5 Data and Parameter PAI II (generic) Methane Avoidance Emission

**Data and Parameters: Generic PAI II Methane Avoidance Emission**

| | Generic PAI Reference Number | II |
|---|---|---|
| | Description of Generic PAI | Methane Emission Avoidance |
| 3.1 | Data/Parameter available at validati | EF $DOC_j$ ($\Sigma$ $CO_2/CH_4/N_2O$) |
| 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 6** Data and Parameter PAI (generic) III Torrefied Biomass Combustible is being implemented, but not yet operational: for information only

**Data and Parameters: Generic PAI 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 7** Data and Parameter PAI (generic) IV Saving energy on recycling activities

**Data and Parameters: Generic PAI 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 $eCO_2$/1000 Lbs | t $eCO_2$/1000 Lbs | t $eCO_2$/1000 Lbs | t $eCO_2$/1000 Lbs | t $eCO_2$/1000 Lbs | t $eCO_2$/1000 Lbs | t $eCO_2$/1000 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 8** Data and Parameter PAI (generic) V Heat Recovery

**Data and Parameters: Generic PAI 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 9** Data and Parameter PAI (generic) VII Energy Efficiency Demand Side

**Data and Parameters: Generic PAI 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 10** Data and Parameter PAI (generic) VIII Fuel Switching

**Data and Parameters: Generic PAI 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 11** Data and Parameter PAI (generic) IX Energy conservation

**Data and Parameters: Generic PAI 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 12** Data and Parameter PAI (generic) X Energy Efficiency Demand side: New buildings conservation

**Data and Parameters: Generic PAI X Energy Efficiency Demand Side: New Buildings**

| | 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. | | |

## E.3 Monitoring Plan

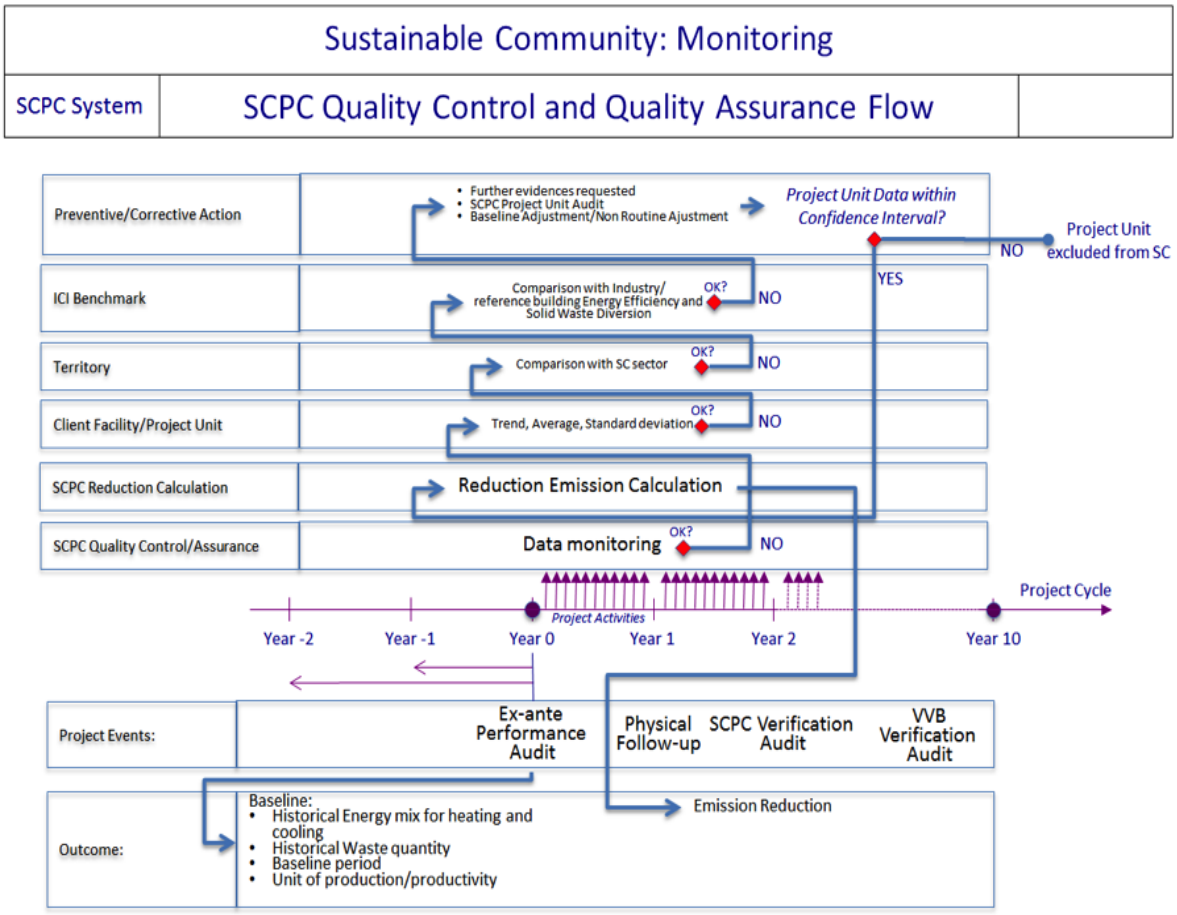
The monitoring plan will be applied to all Project Units as follow:

| | | | 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.

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




In terms of organization, there are six levels that 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 F: SDG Contributions Supporting Evidence

The following documentation describes the evidence for each declared SDG contribution: 9, 10, 11, 12, 13 and 17. These evidences were available directly through publicly accessible referenced documents, including the VCS project documents: Monitoring Reports and their Verification (VVB) reports. When applied, the evidences 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
     i. Section 1.10 on Sustainable Development,
     ii. 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
     i. Hyperlink: https://www.newswire.ca/news-releases/will-announces-3-million-tons-of-greenhouse-gas-offsets-released-for-sale-870212697.html
   - The publication on LinkedIn of an article on November 7, 2016: https://www.linkedin.com/pulse/sustainable-community-solution-catalyst-17-sdgs-martin-clermont/?published=t

b. **Second series of evidence** in place on the Verra registry:
   - Monitoring Report fourth cohort; September 2020,
     i. Section 1.11 *on Sustainable Development*,
     ii. Section 2.1: *on not 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:
     i. Hyperlink: https://solutionswill.com/wp-content/uploads/2020/09/PR_WILL-Announces-the-Verified-Results-of-its-4th-Cohort-Sept2020.pdf

c. **Third series of evidence** as Will's Sustainability action plan:
   - Will (as project proponent), sustainable development plan action (2018) including scope of monitoring, education, and carboneutrality: https://solutionswill.com/wp-content/uploads/2020/07/SustainDevelopPlan_2019-2020.pdf
     i. 2019: https://solutionswill.com/wp-content/uploads/2019/12/SD-Plan-Update-2019.pdf
     ii. 2020: https://solutionswill.com/wp-content/uploads/2020/07/SustainDevelopGoalsReport_SolutionsWILL_2020.pdf
     iii. 2021: https://solutionswill.com/wp-content/uploads/2021/07/SustainableDevelopmentReport_SolutionsWILL_June2021.pdf
     iv. A 5th distribution of carbon revenues: https://www.newswire.ca/news-releases/ipcc-it-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-TSVCM-June2021_Flyer_ANG-VFinal.pdf
- **January 2021** on Verra consultation on EFCU: https://solutionswill.com/wp-content/uploads/2021/01/Will-contribution-to-VCS-questions-about-EFCU_15Jan2021.pdf
- **November 2020** on TSVCM: https://solutionswill.com/wp-content/uploads/2020/11/Will-contribution-to-TSVCM-V1-V3.pdf
- **August 2020** to Environment Canada and Climate change on carbon pricing: https://solutionswill.com/wp-content/uploads/2020/08/Federal-carbon-pricing-memoir_by_WILLSolutions_August2020.pdf
- **June 2019** comments about the second VCS consultation on the 4.0 VCS program project especially on the issue of the SME's participation and the overlapping Monitoring Report period criteria: https://solutionswill.com/wp-content/uploads/2019/07/Will-Comments-June-2019-on-VCS-version-4-1-1.pdf
- **July 2018** comments about the first VCS consultation on the 4.0 VCS program project especially on the issue of the SME's participation and the overlapping Monitoring Report period criteria: https://solutionswill.com/wp-content/uploads/2019/07/wills_comment_on_draft_version_4.0_vcs_july_5_2018.pdf