

Energy Efficiency and Solid Waste Diversion Activities within The Quebec Sustainable Community

MONITORING REPORT



Document prepared by Will Solutions Inc.

Project Title	<i>Energy Efficiency And Solid Waste Diversion Activities Within The Quebec Sustainable Community</i>
Version	2.2
Report ID	<i>Monitoring Report 3.1</i>
Date of Issue	05-06-2019
Project ID	VCS project database ID 929
Monitoring Period	01-01-2016 to 31-12-2016
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Definitions:

Client Facility	A large range of small companies or business units that contract the Sustainable Community Service Promoter to manage their GHG emitting services. Client Facilities may include commercial, institutional, residential and industrial buildings/facilities including but not limited to warehouses, apartment buildings, hotels, restaurants, educational buildings, shopping malls, food manufacturing plants, chemical manufacturing facilities, and light industrial plants. Client Facilities are typically located in regional or state clusters.
Project Unit	A project activity instance wherein the equipment, processes and facilities are being serviced and impacted by the energy efficiency and waste diversion processing project. The Project Unit must be clearly defined and justified by the project proponent. All non-Project Unit items are covered under the heading of facility operation.
Generic Project Activities Instances	Generic Project Activity Instance whose characteristics have been validated and whose attributes, if met by subsequent PAI, will qualify any further occurrences in the Sustainable Community project.
Project Activities Instances	Further occurrences of a Generic PAI which fulfills all the eligibility criteria defined and therefore is qualified in the Sustainable Community project.

Numbering Convention

To facilitate the reading of the document, the following convention has been applied: Generic Project Activity Instance (PAI) is identified by Roman Number (from I to X)

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. (formerly Gedden) 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). This project targets a large range of Client Facilities, all located inside the Province of Quebec, mainly small to medium sized companies (each one have $\leq 25\,000\ tCO_2e$ of GHG emission /year/facility, Small Final Emitters -SFEs), 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 Project objectives are:

1. To gradually group together inside a "Sustainable Community within a Territory", up to 10,000 Clients Facilities, located 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 Industrial Commercial Institutional (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 Industrial Commercial and Institutional (ICI) facilities for a better sustainable behaviour;
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.

Will's Sustainable Community Solution



- At the Sustainable Community Service Promoter (SCSP), the project is implemented since January 1st, 2010. At the Client Facility level, there are different situations: a majority of Project Units/Project Activity Instances (PAI)/Business Units have adhered to the SC project and running Project Units/PAI. The efforts over the coming months will focus on converting these members and have them to have their Project Units/PAI recorded into the ICT platform. For a portion of Client Facility, PAI are on their way, whether at the conception and development or at early implementation. The Group Approach imposes a progressive phasing of the PAIs, and future monitoring report will account for all the new PAIs which will be integrated to the SC between the time of the first verification and the subsequent ones.
- The total GHG emission reductions for the 796 PAIs actives under the period starting 1^{er} January 2016 up to December 31th, 2016 included in this Monitoring Report are 801 067 tCO₂e. That represents a yearly average of $\approx 1\,006$ tCO₂e /per PAI.

1.2 Sectoral Scope and Project Type

The Sectoral Scopes are 3, 13 and it is a grouped project.

1.3 Project Proponent

Organization name	Will Solutions Inc.(WSI)
Contact person	M. Martin Clermont
Title	CEO and carbon expert
Address	Beloeil, Province of Quebec, Canada
Telephone	514-990-2124 ext. 1
Email	mclermont@solutionswill.com

1.4 Other Entities Involved in the Project

Organization name	Certi Conseil Inc.
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 Adviser
Address	4124 rue St Hubert, Montréal, QC, Canada

Telephone	514-839-8788
Email	christophe.kaestli@certiconseil.com

1.5 Project Start Date

The project starting date is January 1st 2010.

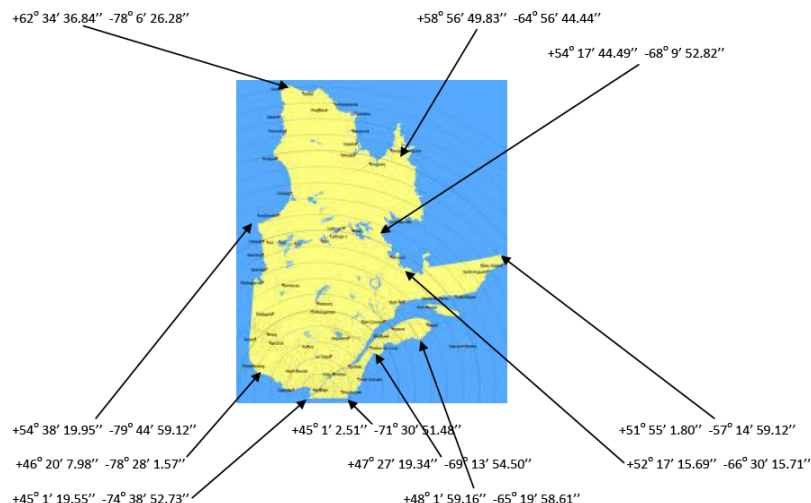
1.6 Project Crediting Period

The project crediting period is 10 years, renewable for 10 years. The starting date is January 1st 2010 and will end December 31rd 2019, renewable for another 10 years.

1.7 Project Location

All ICI's Clients Facilities associated to the project will be located inside the province of Quebec's territory in Canada. This grouping of Client Facilities bind them to a common geographic cluster (the territory of Province of Quebec), where the 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 Clients Facilities.

The geographical map shown here 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 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 79 Clients facilities declared on this monitoring report which are supporting all 796 PAI, are all located inside this polygon. Refer to the Appendix C 2 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 VM00018 in VCS and it was released in 2012.

1.9 Other Programs

Not applicable. Will Solutions, the project proponent, does not participate to any other GHG Programs neither regulated nor voluntary; Will Solutions is only active on the VCS program. Will solution, the project proponent, does not participate and does not intend to participate into the Quebec regulated market, as named the SPEDE¹, and neither to the WCI.

The Québec's Cap-and-Trade System for GHG allowances, an Emission Trading System (ETS) will be named in this monitoring report by its French acronym (RSPEDE). Extract from the technical Quebec overview² there is the scope of the RSPEDE:

«Since the start of the first compliance period on January 1st, 2013, persons and/or municipalities that operate any facility whose annual GHG emissions (excluding CO₂ emissions related to the combustion of biomass) are greater than or equal to 25 kt of equivalent CO₂ (kt CO₂ eq.) have been regulated by the C&T system».

«And as of January 1, 2015 (beginning of the second compliance period), any person or municipality that distributes in Québec fossil fuels whose combustion meets or exceeds the

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

² Technical Overview of the Québec's Cap-and-Trade, page 7. <http://www.mddelcc.gouv.qc.ca/changements/carbone/documents-spede/technical-overview.pdf>

annual GHG emission threshold of 25 kt CO₂ eq. is also covered by the C&T system, thereby encompassing almost 85 % of Québec's GHG emissions».

Furthermore, the project proponent took a conservative approach by excluding all grid electricity claims (scope 2 as defined by energy indirect GHG³) from all the 796 PAI of this Monitoring report, from the period starting January First 2016 up to December 31th, 2016.

1.10 Sustainable Development

The Sustainable Community Solution (SC) 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 reconfirms 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 Nations (UN) in particular the SDG, 9, 11, 13 and 17, see more on the following post on LinkedIn: <https://www.linkedin.com/pulse/sustainable-community-solution-catalyst-17-sdgs-martin-clermont?published=t>. The social impact, in another word, the participation of all 79 clients facilities (all citizens of the municipalities participating, all SME's employees participating and their customers, represents around 9,53% of the Quebec population. See in appendix B.

The recruitment of new members (clients facility) and new community supports, were realized with the participation of 14 SADCs, as non-governmental organizations (NGO); Matapedia, Neigette, Basques, Rivière-du-Loup, Kamouraska, Lotbinière, Haut-Saguenay, Maskinongé, CAE Rive-Nord, Laurentides, Antoine-Labelle, Papineau, Abitibi-Ouest and SADC Autray-Joliette, all members of the Réseau des SADC et CAE. All these NGOs have for mission to facilitate microfinance and sustainability to small and medium enterprises (SME) and municipalities in remote area.

Will Solutions Inc. (WSI), the project proponent, is acting as a social entrepreneur, and its' engagement is to provide the best business solutions and business models that measure the environmental performance of each individual, citizen, company and community and rewards those who are advocate to 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. WSI is convinced that this action matches circular and positive economy concepts.

³ Scope 2 are also referred to as Energy Indirect GHG, and are defined as 'emissions from the consumption of purchased electricity, steam, or other sources of energy (e.g. chilled water) generated upstream from the organization'.

2 IMPLEMENTATION STATUS

2.1 Implementation Status of the Project Activity

The project activity includes a total of 9 Generic PAI types. These Generic PAI types allow for the additionality analysis of the new PAIs of this monitoring report, which are described the 79 Client's facilities in the Table 2. The 79 client facilities and 796 specific PAIs fall into one or more of these 9 Generic PAIs. These Generic PAI types are as follows:

Table 1:

Generic PAI Reference Number			
	Generic PAI (no new Generic PAI on this second monitoring report)	Generic PAI EE	Generic PAI WM
I	Biomass Energy Project	√	
II	Methane Emission Avoidance		√
III	Torrified 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 New buildings/major renovations	√	
Total		7	2

2.2 Deviations

2.2.1 Methodology Deviations

There is no deviation to methodology.

2.2.2 Project Description Deviations

There is no deviation to the project description (PD). The definition of the scope of SPEDE, and its phase 1 and 2 are explained in the section 1.9 and in the Appendix A

2.3 Grouped Project

There were a number of new additions to the Generic PAIs in the SC project. **The Table 2** lists the new occurrences and confirms the eligibility of each additional PAI.

- The additionally, at the project proponent level, was demonstrated, at the satisfaction of the VVB, as per, namely, *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 be 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 cost' sharing regrouping all Clients facilities and without the Business model of the project proponent, it will be definitively impossible to bring any of their eligible GHG emission reductions to voluntary market. It is simply not affordable to consider going Client facilities individually for each of their different PAI.
- Each individual PAI, once found eligible is associated to the relevant Generic PAIs: the project proponent has established a list of 10 generic PAI, which were validated by the VVB in the first monitoring report of February 2014, to classified activities. These Generic PAI cover the different micro project (PAI) which Will (project proponent) wants to make adhere to its Sustainable Community Project. The Generic Projects Activity Instance (PAI) have processes/outcomes which overpass business as usual (BAU) practices and defines more efficient ways compared to common practices. On this basis, and as per CMD additionality guideline, the VVB has confirmed the additionality of each Generic PAI. Any new PAI, regrouped in the Sustainable Community group project method is recognized to be additional if it meets the eligibility criteria.

Table 2: Sustainable Community new PAI: Classification and Eligibility

New PAI: Classification, Eligibility and attributes Compliance								
Clients facility	New PAI scope 3	New PAI scope 13	Located inside the Quebec territory	Be quantified after January First 2010	Be registered member of the SCSP project	Having a similar or using a similar technologies, measures or practices as the Generic PAI based on scope 3 and 13	Be auditable and verifiable	Project Unit GHG reduction are inferior to 5 000 tCO ₂ e/year
70 New clients facility	322	334	√	√	√	√	√	√
9 Client's facility part of former MR	0	48	√	√	√	√	√	√
Total	322	382	√	√	√	√	√	√

Detailed by client facility is available on Appendix B.

2.4 Safeguards

2.4.1 No Net Harm

Will Solution Inc. (WSI) as project proponent, is not in charge of doing or realizing any physical sustainable project activity instances (PAI) of its members. At the contrary, WSI is mutualizing all

the GHG eligible reductions efforts done by each the members of its Sustainable Community project in view to convert them into VCU, sale them and return a minimum of 40% of the gross sales to each members to the extent of each of its GHG reduction efforts. WSI 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.

WSI is carefully selecting each project activity instance (PAI) of all new members of SC, which have to respect any environmental regulations. Regrouping all these eligible PAI, mainly on remote area, the SC project is then creating strong benefit socio-economic impacts by *rewarding* economically SME projects directly as well as municipalities focused on Sustainable Development (SD).

2.4.2 Local Stakeholder Consultation

The project got all local and regional stakeholders support required to the Project as mentioned into the Project Document already validated. Furthermore WSI as project proponent continues to adhere new community supports, including NGOs, such as the [Reseau SADC](#), having mission to facilitate microfinance to small and medium enterprises (SME) and municipalities in remote area and recruiting their customer (more than 10 000 SME and municipalities), as new member of the Sustainable Community project.

Knowing directly their customer and their sustainable projects (on energy consumption and waste diversion), they facilitate their recruitment as new member of the Sustainable Community project and in particular to the one having a sensibility to act now on sustainable development. To see more information about the Reseau SADC: <http://www.sadc-cae.ca/index.php/en/the-reseau/mission.html> . Several post are available on SME impact are available on the LinkedIn account of the project proponent <https://www.linkedin.com/company/will-solutions>

3 DATA AND PARAMETERS

The Data and Parameters of the SC available at the time of verification have been organized at 2 levels:

- At the Generic PAIs, at a high level
- For each Generic PAI, as it is registered in the ICT platform. The Table 3 presents the 9 Generic PAIs used by the Project proponent

Table 3 List of Generic PAI

Generic PAIs			
	Generic PAI validated in the first Monitoring report	Generic PAI EE	Generic PAI WM
I	Biomass Energy Project	✓	
II	Methane Emission Avoidance		✓
III	Torrified 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	✓	
	New buildings/major renovations		

3.1 Data and Parameters Available at Validation

The hereafter parameters are those of the SC project.

Parameter:	<i>EF Thermal Energy_{CO2e}</i>
Data unit:	<i>Kg CO_{2e} per GJ</i>
Description:	<i>CO_{2e} emissions factor for local generation of thermal energy</i>
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 ₂ O and CO ₂ emissions. All values applied and used for the calculations are described for each generic project activity instance in the Appendix C.
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 the data	The EF Thermal Energy are used for: <ul style="list-style-type: none"> • The Calculation of baseline emissions • The Calculation of project emissions
Comments	-

Parameter:	<i>EF Fuel_{i N2O}</i>
Data unit:	<i>Kg N₂O per L, m³, or other</i>
Description:	<i>N₂O emissions factor for combustion of each type of fuel (EF Fuel_{i N2O})</i>
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	<p>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 CH₄, N₂O and CO₂ emissions.</p> <p>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix C.</p>
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 the data	<p>The EF Fuel are used for:</p> <ul style="list-style-type: none"> • The Calculation of baseline emissions • The Calculation of project emissions
Comments	-

Parameter:	$EF_{Fuel\ i\ CH_4}$
Data unit:	<i>Kg CH₄ per L, m³, or other</i>
Description:	<i>CH₄ emissions factor for combustion of each type of fuel (EF_{Fuel i CH₄})</i>
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	<p>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 CH₄, N₂O and CO₂ emissions.</p> <p>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix C.</p>
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 the data	<p>The EF_{Fuel} are used for:</p> <ul style="list-style-type: none"> • The Calculation of baseline emissions • The Calculation of project emissions
Comments	-

Parameter:	<i>EF Fuel_{i CO2}</i>
Data unit:	<i>Kg CO₂ per L, m³, or other</i>
Description:	<i>CO₂ Emissions Factor for combustion of each type of fuel (EF Fuel_{i CO2})</i>
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	<p>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 CH₄, N₂O and CO₂ emissions.</p> <p>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix C.</p>
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 the data	<p>The EF Fuel are used for:</p> <ul style="list-style-type: none"> • The Calculation of baseline emissions • The Calculation of project emissions
Comments	-

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	<p>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 CH₄, N₂O and CO₂ emissions.</p> <p>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix C.</p>
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 the data	<p>The OX factor is used for:</p> <ul style="list-style-type: none">• The Calculation of baseline emissions• The Calculation of project emissions
Comments	-

Parameter:	<i>DOC₁</i>
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	<p>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 CH₄, N₂O and CO₂ emissions.</p> <p>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix C.</p>
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 the data	<p>The DOC factor is used for:</p> <ul style="list-style-type: none"> • The Calculation of baseline emissions • The Calculation of project emissions
Comments	-

Parameter:	<i>DOC_j</i>
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 the data	The DOC factor is used for: <ul style="list-style-type: none">• The Calculation of baseline emissions• The Calculation of project emissions
Comments	-

Parameter:	<i>MCF</i>
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	<p>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 CH₄, N₂O and CO₂ emissions.</p> <p>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix C.</p>
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 the data	<p>The MCF factor is used for:</p> <ul style="list-style-type: none"> • The Calculation of baseline emissions • The Calculation of project emissions
Comments	-

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	<p>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 CH₄, N₂O and CO₂ emissions.</p> <p>All values applied and used for to the calculations are described for each generic project activity instance in the Appendix C.</p>
Purpose of the data	<p>The MCF factor is used for:</p> <ul style="list-style-type: none"> • The Calculation of baseline emissions • The Calculation of project emissions
Comments	-

3.2 Data and Parameters Monitored

Here are the Data and Parameters monitored.

Data Unit / Parameter:	Volume or Quantity of Fuel _i
Data unit:	L, m ³ , 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. Evidences will be recorded on Bill of Lading and Invoices.
Value applied:	-

Monitoring equipment:	<p>The monitoring equipment includes:</p> <ul style="list-style-type: none"> Flow meters installed on tanker. By law, such flow meters are to be calibrated regularly. Supplier sealed flow meters installed at client facility, such gaz meter.
QA/QC procedures to be applied:	<p>The SPSC system applies the following QC/QA procedures:</p> <ul style="list-style-type: none"> Data comparison with past performance Data comparison with similar Project Unit Data comparison with standard benchmark (Ashrae 90.1, Model National Energy Code for Building MNECB) Data comparison with sector association. Project Unit Investigation for root cause analysis of data profile if outside range Project Unit Physical audit to validate the measurement devices conditions and collect related evidence.
Calculation method:	<p>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 time the tank is filled during the period.</p> <p>In case Project Unit is supplied by Client Facility tank, the portion is justified by evidences.</p>
Any comment:	

Data Unit / 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 Bill of Lading and the Invoice of each Fuel delivery is The amount of electricity consumed from the grid is determined by the Hydro-Québec calibrated kWh meter
Frequency of monitoring/recording:	Monthly or bi monthly, with consumption statement. Evidences will be recorded on Invoices.
Value applied:	-
Monitoring equipment:	<p>The monitoring equipment includes:</p> <ul style="list-style-type: none"> 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:	<p>The SPSC system applies the following QC/QA procedures:</p> <ul style="list-style-type: none"> Data comparison with past performance Data comparison with similar Project Unit Data comparison with standard benchmark

	<p>(Ashrae 90.1, Model National Energy Code for Building MNECB,...)</p> <ul style="list-style-type: none"> • Data comparison with sector association. • Project Unit Investigation for root cause analysis of data profile if outside range • Project Unit Physical audit to validate the measurement devices conditions and collect related evidence.
Calculation method:	If internal meters are required for the Isolation Parameter Measurement option, electrical consumption is determined by meters which are calibrated as per the manufacturer's schedule. Alternatively the energy consumed by the related electrical devices will be equal to nominal power of the devices over the time of operations.
Any comment:	

Data Unit / Parameter:	Quantity of waste
Data unit:	Kg or MT
Description:	Weight of waste which is diverted from 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. Evidences will be recorded on Invoices.
Value applied:	-
Monitoring equipment:	The monitoring equipment includes: <ul style="list-style-type: none"> • Weighting balance.
QA/QC procedures to be applied:	<p>The SPSC system applies the following QC/QA procedures:</p> <ul style="list-style-type: none"> • Data comparison with past performance • Data comparison with similar Project Unit • Data comparison with Data comparison with sector association. • Project Unit Investigation for root cause analysis of data profile if outside range • Project Unit Physical audit to validate the measurement devices conditions and collect related evidence.
Calculation method:	Waste weight could be expressed in other than SI units, such ST, Lbs: conversion is made to have waste weight expressed in Kg or MT.
Any comment:	

All monitored data used to quantify the eligible GHG emissions reductions for each PAI in this monitoring report were supported by evidence, available to the VVB. A technical data sheet for each Clients facility participating to this monitoring report is available in the Appendix C. Each generic PAI (Table 3) and each new PAI associated to generic PAI are monitored specifically as follows in the here below tables:

3.2.1 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 validation	EF Propane ($\Sigma \text{CO}_2/\text{CH}_4/\text{N}_2\text{O}$)	EF Butane ($\Sigma \text{CO}_2/\text{CH}_4/\text{N}_2\text{O}$)	EF Diesel ($\Sigma \text{CO}_2/\text{CH}_4/\text{N}_2\text{O}$)	EF Electricity ($\Sigma \text{CO}_2/\text{CH}_4/\text{N}_2\text{O}$)
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 Determination	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.			

3.2.2 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 validation	EF DOC ₁ (Σ CO ₂ /CH ₄ /N ₂ O)
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
		Project Units/PAI using similar technology may used different fossil combustibles. In such instance, Emission Factors will be defined accordingly.
l	Comments	

3.2.3 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 validation	EF DOC _j (Σ CO ₂ /CH ₄ /N ₂ O)
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
		Project Units/PAI using similar technology may use different fossil combustibles. In such instance, Emission Factors will be defined accordingly.
l	Comments	

3.2.4 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 validation	EF HDPE (Σ CO ₂ /CH ₄ /N ₂)	EF PET (Σ CO ₂ /CH ₄ /N ₂)	EF PVC (Σ CO ₂ /CH ₄ /N ₂)	EF LDPE (Σ CO ₂ /CH ₄ /N ₂)	EF PP (Σ CO ₂ /CH ₄ /N ₂)	EF PS (Σ CO ₂ /CH ₄ /N ₂)	EF PC/ABS/MDPE (Σ CO ₂ /CH ₄ /N ₂)
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	0.865	0.775	1.25	0.93
e 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
f 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
b Option A or Option B Measurement	Option A	Option A	Option A	Option A	Option A	Option A	Option A
c Source/Sink identification	Pg	Pg	Pg	Pg	Pg	Pg	Pg
d Data Unit	t	t	t	t	t	t	t
e 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
f 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
g 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
h Frequency	At each delivery	At each delivery	At each delivery	At each delivery	At each delivery	At each delivery	At each delivery
i Value monitored	t	t	t	t	t	t	t
j Monitoring equipment	Calibrated weighing devices	Calibrated weighing devices	Calibrated weighing devices	Calibrated weighing devices	Calibrated weighing devices	Calibrated weighing devices	Calibrated weighing devices
k 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 weight	Double check: seller and buyer weight	Double check: seller and buyer weight
l 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 plastic	Emission avoided with recycled plastic	Emission avoided with recycled plastic
m 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
n Comments	Project Units/PAI using similar technology may use different fossil combustibles. In such instance, Emission Factors will be defined accordingly.						

3.2.5 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 validation	EF Propane ($\Sigma \text{CO}_2/\text{CH}_4/\text{N}_2\text{O}$)	EF Electricity ($\Sigma \text{CO}_2/\text{CH}_4/\text{N}_2\text{O}$)
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 Equipment
l	Comments	Project Units/PAI using similar technology may use different fossil combustibles. In such instance, Emission Factors will be defined accordingly.	

3.2.6 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 validation	EF Oil N°6 (Σ CO ₂ /CH ₄ /N ₂ O)	EF Electricity (Σ CO ₂ /CH ₄ /N ₂ O)
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 use different fossil combustibles. In such instance, Emission Factors will be defined accordingly.	

3.2.7 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 validation	EF Propane ($\Sigma \text{CO}_2/\text{CH}_4/\text{N}_2\text{O}$)	EF Oil N° 2 ($\Sigma \text{CO}_2/\text{CH}_4/\text{N}_2\text{O}$)	EF Electricity ($\Sigma \text{CO}_2/\text{CH}_4/\text{N}_2\text{O}$)
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
			Baseline/Project scenario for heating building	Baseline/Project scenario for heating building
j	Purpose of data	Baseline/Project scenario for heating building		Nominal Electrical Lighting and Equipment
k	Calculation method	Propane Volume consumed	Oil N°2 Volume consumed	
l	Comments	Project Units/PAI using similar technology may use different fossil combustibles. In such instance, Emission Factors will be defined accordingly.		

3.2.8 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 validation	EF Oil N° 2 (Σ CO ₂ /CH ₄ /N ₂ O)
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
e	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
		Project Units/PAI using similar technology may use different fossil combustibles. In such instance, Emission Factors will be defined accordingly.
l	Comments	

3.2.9 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 validation	EF Gaz Nat (Σ CO ₂ /CH ₄ /N ₂ O)	EF Oil N° 2 (Σ CO ₂ /CH ₄ /N ₂ O)	EF Electricity (Σ CO ₂ /CH ₄ /N ₂ O)
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
e	Purpose of data	Parameters for Baseline and Project Em.	Parameters for Baseline and Project Em.	Determination 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	used different fossil combustibles. In such instance, Emission Factors will be defined accordingly.		

3.3 Monitoring Plan

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

Sustainable Community: monitoring

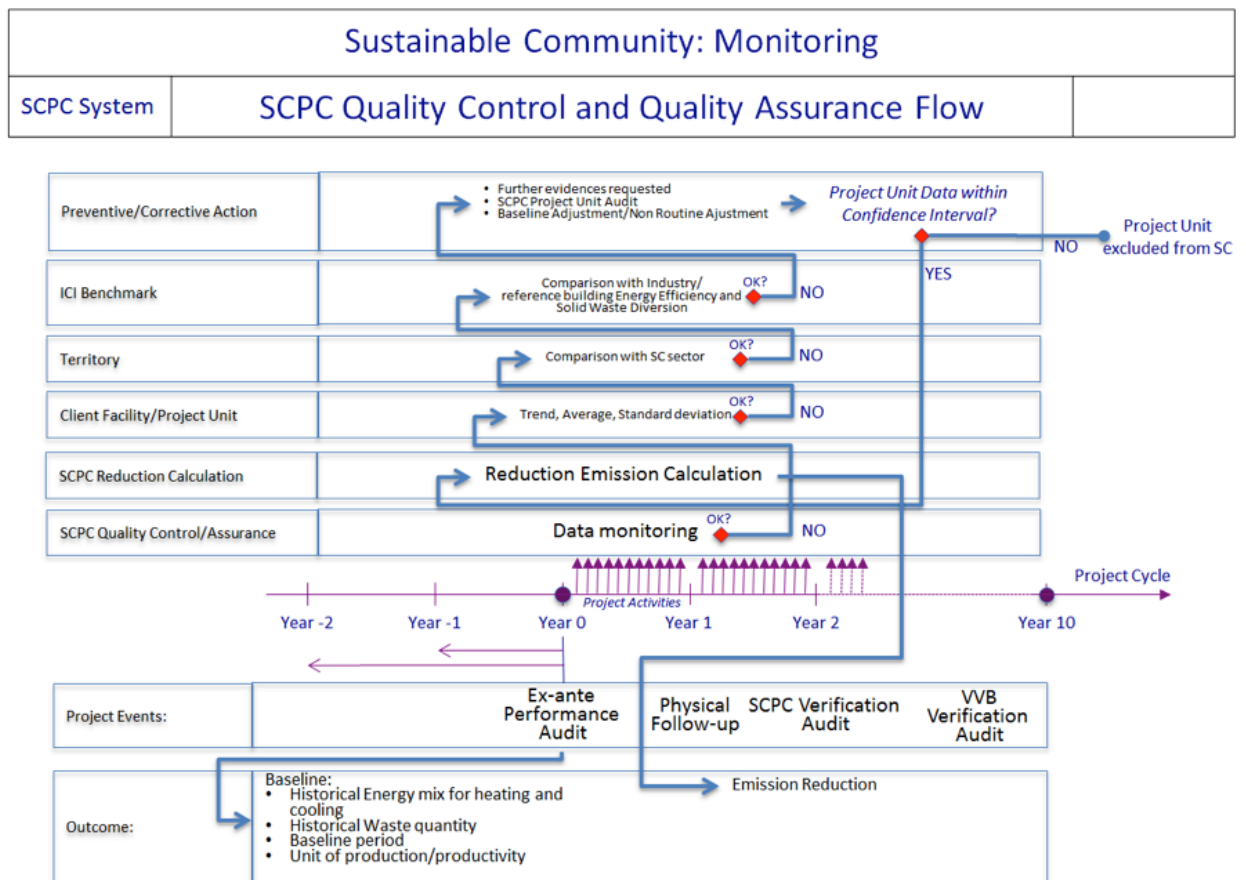
Category	Activity	Measure Option	Project					Impact on reduction	Adjustment
			Baseline Adjustment	Parameter	Instrument	Frequency	Incertitude		
Fuel switching	Biomass boiler	Option B		Mass of processed biomass	loader bucket	consolidation every week	estimate of the average mass in the bucket	none	Process Yield
	Heat Recovery: process	Option A	Process yield	Volume of fuel	Volume/Quantity on invoice*	continuous	negligible as measure devices calibrated	none	
Energy Efficiency	Heat Recovery: process	Option B	Process Yield	T* and Debit (Enthalpy)	Thermometer Debitmeter	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	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
Waste	Energy Efficiency: building lighting	Option A	Light intensity	Nominal Wattage	Manufacturer technical data	at the time installation	negligible as measure devices calibrated	none	
	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 pallets	Option B		Number of pallets and reuseage	Number of travel written on pallet/bill of Lading	Monthly consolidation	wood pallet end of life at point of destination	Max: energy substitution if burn	

*Energy suppliers have to have their debitmeters regus/day calibrated: th invoice is then based on the calibrated debitmeter reading

In addition a Quality Control of the data will be performed as follows:

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

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



In terms of organization, there are six levels 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.

4 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

4.1 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 (**EF₃**, in tCO₂/unit of fossil fuel and **EF₁₃** tCO₂/Mt of waste stream) and the fossil fuel consumption (**FF**) used before project and the waste stream (**WS**) before its diversion from landfill management.

$$\mathbf{BE}_y = \mathbf{FF}_{BL} * \mathbf{EF}_3 \quad (\text{sectoral scope 3})$$

$$\mathbf{BE}_y = \mathbf{WS}_{BL} * \mathbf{EF}_{13} \quad (\text{sectoral scope 13})$$

$$\mathbf{FF}_{BL,y} = \text{Volume of fossil fuel}$$

$$\mathbf{WS}_{BL,y} = \text{Volume of waste stream}$$

$$\mathbf{EF}_3 = \text{CO}_2\text{e emission factor of the fossil fuel}$$

$$\mathbf{EF}_{13} = \text{CO}_2\text{e emission factor of the waste stream and taking into account the different management scenario, at landfill, regarding the flaring or no flaring of the methane (biogas) and/or its use or not for energy recovery.}$$

For this third monitoring report, each Client Facility members of the Sustainable Community projects have a specific data sheet for their quantification of each of their eligible PAI and is available in Appendix C. On this specific data sheet, and for each PAI involved on this report, the specific BE, EF and their calculations are detailed by vintage. Relevant information's, to complement these calculations, are available when applying in this specific data sheet.

A summarized data sheet regrouped the summation of all their baseline emissions of GHG per Client facility and is available in Appendix B.

4.2 Project Emissions

The Project Emissions (**PE_y**, in tCO₂e) of all PAI are the summation for each PAI of the product of the project emission factor (**EF₃**, in tCO₂/unit of fossil fuel and **EF₁₃** tCO₂/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**).

$$\mathbf{PE}_y = \mathbf{FF}_P * \mathbf{EF}_3 \quad (\text{sectoral scope 3})$$

$$\mathbf{PE}_y = \mathbf{WS}_P * \mathbf{EF}_{13} \quad (\text{sectoral scope 13})$$

$$\mathbf{FF}_{P,y} = \text{Volume of fossil fuel}$$

$$\mathbf{WS}_{P,y} = \text{Volume of waste stream}$$

$$\mathbf{EF}_3 = \text{CO}_2\text{e emission factor of the fossil fuel}$$

$$\mathbf{EF}_{13} = \text{CO}_2\text{e emission factor of the waste stream and taking into account the different management scenario, at landfill, regarding the flaring or no flaring of the methane (biogas) and/or its use or not for energy recovery.}$$

For this third monitoring report, each Client Facility members of the Sustainable Community projects have a specific data sheet for their quantification of each of their eligible PAI and is

available in Appendix C. On this specific data sheet, and for each PAI involved on this report, the specific PE, EF and their calculations are detailed by vintage. Relevant information's, to complement these calculations, are available when applying in this specific data sheet.

A summarized data sheet regrouped the summation of all their projects emissions of GHG per client facility and is available in Appendix B.

4.3 Leakage

At Project Unit level, the leakage, during period January First 2016 – December 31th, 2016, is de minimus, thus $LE_y=0$.

4.4 Net GHG Emission Reductions and Removals

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

$$\text{Thus } ER_y = BE_y - PE_y - LE_y$$

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

Year	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions (tCO ₂ e)
2016	803 415	2 348	<i>de minimus</i>	801 067

Notes:

The 801 067 tCO₂e representing the net GHG emission reduction of the year 2016 and written in the top Table included the net GHG emissions reductions (all from sectorial scope 3) realized after January First, 2016 which were realized under the Quebec phase II regulated carbon market, the RSPED. The amount of the net GHG emissions reductions from sectorial scope 3 and realized after January First, 2016 represents 220 772 tCO₂e. Therefore the vintage 2016 emission reduction (ER) subtracted of 220 815 tCO₂e is equal to 580 252 tCO₂e, as described in the following equation ($801\,067 - 220\,815 = 580\,252$ tCO₂e). See more detail on the Appendix A.

The following Table described the exposure to a potential double counting issue per for each Client facilities and their PAI associated to sectorial scope 3. It is also available on Appendix B.

					GHG emissions in (tCO2e)		
	Group of members	MEMBRE COMMUNAUTÉ DURABLE	Number of PAI, Scope 3	New PAI	Baseline emissions (tCO2e)	Project emissions (tCO2e)	Net GHG emissions reductions (tCO2e)
1	01-SADC: Matapédia	Municipalité Causapscal	1	1	794,6	145	649,6
2	01-SADC: Matapédia	Parc régional de Val d'Irène	2	2	12,1	5,2	6,9
Sub-total			3	3	806,7	150,2	656,5
0	02-SADC: Neigette	n.a.	0	0	0	0	0
Sub-total			0	0	0	0	0
1	03-SADC: Basques	Comm. Scolaire du Fleuves et des Lacs	1	1	293,9	82,8	211,1
2	03-SADC: Basques	Fibres de verres Rioux	4	4	240,6	102,5	98,1
3	03-SADC: Basques	Fromagerie des Basques	1	1	215	44,1	170,9
4	03-SADC: Basques	Municipalité St-Jean de Dieu	1	1	716,8	11,4	705,4
5	03-SADC: Basques	Club encadrement tech. Acériculture Est	28	28	1247,7	0	1247,7
6	03-SADC: Basques	Fromagerie le Détour	1	1	17,8	15,7	2,1
7	03-SADC: Basques	La Fabrique de Notre-Dame du Lac	2	2	16	1,9	14,1
8	03-SADC: Basques	MRC des Basques	1	1	147,2	0	147,2
Sub-total			39	39	2940	308,4	2631,6
1	04-SADC: Rivière-du-loup	Agriscar Coop Agricole	2	2	271,3	171,3	100
2	04-SADC: Rivière-du-loup	Commission Scolaire Kamouraska-RDL	14	14	1385,6	0	1385,6
Sub-total			16	16	1657,9	171,3	1486,6
1	05-SADC: Kamouraska	CDBQ Centre de Dév. Biaisimentaire du Québec	1	1	636,6	264,5	372,1
2	05-SADC: Kamouraska	Collège Sainte-Anne-de-la-Pocatière	5	5	377,9	156,2	221,7
3	05-SADC: Kamouraska	Ville de la Pocatière	4	4	486,4	10,7	485,7
4	05-SADC: Kamouraska	MRC de Kamouraska	1	1	36,7	0	36,7
5	05-SADC: Kamouraska	Évêché Sainte-Anne-de-la-Pocatière	6	6	165,2	0	165,2
6	05-SADC: Kamouraska	Ateliers mon choix	0	0	0	0	0
Sub-total			17	17	1212,8	431,4	781,4
1	06-SADC: Lotbinière	Bois Plancher PG	9	9	1126,7	117,1	1009,6
2	06-SADC: Lotbinière	Mirrior Laurier	3	3	1396,4	253,3	1143,1
3	06-SADC: Lotbinière	Bernard Breton	1	1	408	190,9	217,1
4	06-SADC: Lotbinière	Bibby Ste-Croix et LaPerle	6	6	21521,9	11385,4	10136,5
5	06-SADC: Lotbinière	Québec MultiPlants	2	2	961,4	429	532,4
Sub-total			21	21	27378,4	12385,7	15279,7
1	07-SADC: Haut-Saguéniay	Clinique Montfort	1	0	7,5	0,1	7,4
2	07-SADC: Haut-Saguéniay	Pourvoirie Wapishish	2	0	116,3	18	98,3
3	07-SADC: Haut-Saguéniay	Église Notre-Dame de Laterrière	1	0	56,1	0,3	55,8
4	07-SADC: Haut-Saguéniay	Pépinière Boucher	1	0	83,2	36,9	46,2
5	07-SADC: Haut-Saguéniay	Récupère Sol	10	0	11205,1	1267,6	9937,5
6	07-SADC: Haut-Saguéniay	Gazon Savard (M.O.)	0	0	0	0	0
7	07-SADC: Haut-Saguéniay	Bizz Magasin d'alimentation	0	0	0	0	0
8	07-SADC: Haut-Saguéniay	Produits Forestiers Petit Paris	0	0	0	0	0
9	07-SADC: Haut-Saguéniay	UTM Terrassement St-Louis	0	0	0	0	0
10	07-SADC: Haut-Saguéniay	Grimard	1	1	61,1	0	61,1
11	07-SADC: Haut-Saguéniay	Les Serres des jardins	1	1	36,7	0,2	36,5
12	07-SADC: Haut-Saguéniay	Imago Village	1	1	7,8	0	7,8
Sub-total			18	3	13134,9	1328,1	10196,7
1	08-SADC: Maskinongé	Auberge Sacacomie	2	2	726,5	396,3	330,2
2	08-SADC: Maskinongé	Ferme Torchys	1	1	355	22,7	332,2
3	08-SADC: Maskinongé	Imprimerie Marquis	1	1	812,8	586,9	225,9
4	08-SADC: Maskinongé	Bâtiments Leeds Desjardins	2	2	201,9	2,2	199,8
5	08-SADC: Maskinongé	Matériaux Spécialisés Louiseville	0	0	0	0	0
6	08-SADC: Maskinongé	Fédération UPA Maurice	0	0	0	0	0
7	08-SADC: Maskinongé	Lauzon Bois énergétique	0	0	0	0	0
Sub-total			6	6	2096,2	1008,1	1088,1
1	09 CAE Rive-Nord	Municipalité Prévost	0	0	0	0	0
2	09 CAE Rive-Nord	0	0	0	0	0	0
3	09 CAE Rive-Nord	Cégep de St-Jérôme	12	12	178,9	461,7	313,2
4	09 CAE Rive-Nord	Centre de Tri Argenteuil	3	3	17,6	0	17,6
5	09 CAE Rive-Nord	Moulures Warnet	10	10	277,1	0	277,1
Sub-total			25	25	1071,6	461,7	609,9
1	10- SADC Laurentides	Honda Ste-Agathe	2	2	175,8	12,5	163,3
2	10- SADC Laurentides	Groupe Crête	7	7	36322,1	1607,1	34715
3	10- SADC Laurentides	Ville de St-Sauveur	1	1	24	2,8	21,2
4	10- SADC Laurentides	Commission Scolaire des Laurentides	9	9	1325,46	728,96	596,5
Sub-total			19	19	37827,36	2341,36	35486
1	11-SADC: Antoine-Labelle	Les Serres Frank Zyromski inc.	20	20	6536,1	1059,4	5476,8
2	11-SADC: Antoine-Labelle	Pourvoirie fer à cheval	1	1	140	1,6	138,4
3	11-SADC: Antoine-Labelle	Régie inter-municipale La Lièvre	0	0	0	0	0
4	11-SADC: Antoine-Labelle	Régie Inter-municipale La Rouge	0	0	0	0	0
Sub-total			21	21	6676,1	1061,0	5615,1
1	12-SADC: Abitibi Ouest	Fabrique Paroisse St-André Sarre	1	1	128,4	18,8	109,6
2	12-SADC: Abitibi Ouest	Résidence Andria Inc.	1	1	21,3	3,7	17,6
3	12-SADC: Abitibi Ouest	Fromagerie La Vache à Maillette	1	1	333,5	192,1	141,4
4	12-SADC: Abitibi Ouest	Pneus GBM	1	1	12,6	0	12,6
5	12-SADC: Abitibi Ouest	MRC Temiscamingue	0	0	0	0	0
6	12-SADC: Abitibi Ouest	Entreprises P.L.C. Senneterre	1	1	164,7	105,7	59
Sub-total			5	5	660,5	306,3	354,2
1	13-SADC de Papineau	Municipalité Papineauville	0	0	0	0	0
2	13-SADC de Papineau	Fabrique St-André-Avelin	1	1	80,6	45,6	34,9
3	13-SADC de Papineau	Municipalité Ange-Gardien	0	0	0	0	0
4	13-SADC de Papineau	Municipalité Plaisance	1	1	12,5	0,1	12,4
5	13-SADC de Papineau	CroqueFormes	0	0	0	0	0
6	13-SADC de Papineau	Ferme Chapeau Melon	1	1	0	0	0
7	13-SADC de Papineau	Épursol	0	0	0	0	0
8	13-SADC de Papineau	Lauzon Bois énergétique	22	22	47077,2	1,2	47076
9	13-SADC de Papineau	Kenauk Nature	2	2	139,6	101,1	38,5
Sub-total			27	27	47205,9	148	47353,9
1	14-SADC: D'Autray-Joliette	Lanauraie Pharma Inc. (Familliprix)	0	0	0	0	0
2	14-SADC: D'Autray-Joliette	Les Emulsions Bourget	1	1	258	70,9	187,1
3	14-SADC: D'Autray-Joliette	Municipalité Saint-Norbert	1	1	42,9	24,7	17,2
4	14-SADC: D'Autray-Joliette	Ferme L.M. Drainville	8	8	439,9	315,7	124,2
Sub-total			10	10	740,8	411,3	329,5
0	15-SADC Achigan-Montcalm	n.a.	0	0	0	0	0
Sub-total			0	0	0	0	0
1	First cohorte (MR- Feb. 2014)	Boisaco	5	0	9148	2185,4	6962,6
2	First cohorte (MR- Feb. 2014)	St-Gédéon de Beauce	1	0	102,2	21,4	78,8
3	First cohorte (MR- Feb. 2014)	RPM Environnement	15	0	0	0	0
Sub-total			21	0	9250,2	2206,8	7043,4
1	New members recruited directly by WII	Les Serres Lefort	76	76	22421,1	725,3	22705,7
2	New members recruited directly by WII	Metallage	34	34	69403,7	91,9	69301,8
Sub-total			110	110	91824,8	817,2	90997,6
Total			16	79	360	322	244 529

The net GHG emissions reductions quantified, from the period January 1st 2010 up to December 31th 2015, were realized under the validate project document at the time the VCS program did not have in place a disposition regarding overlapping period for monitoring reports as described in its version v3.4, issued on October 8th 2013, in the section 3.16.7 of its program. The amount of these verified GHG's reductions represents 2 152 965 tCO₂e. This amount is excluded of this monitoring report.

See more detail on the Following Pivot Table and in Appendix D.

Pivot Table: breakdown of the GHG reduction per vintage from January First 2010 up to December 31th, 2015.

year	GHG emissions in (tCO ₂ e)			
	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions (tCO ₂ e)
2010	222 355	1 317	<i>de minimus</i>	221 038
2011	279 169	3 465	<i>de minimus</i>	275 704
2012	278 950	-324	<i>de minimus</i>	279 274
2013	428 836	3 975	<i>de minimus</i>	424 861
2014	480 471	-713	<i>de minimus</i>	481 184
2015	468 667	-2 237	<i>de minimus</i>	470 904
Total 2010-2015	2 158 447	5 482	0	2 152 965

The project proponent took a conservative approach by excluding all grid electricity claims (scope 2 as defined by energy indirect GHG⁴) from all the 796 PAI of this Monitoring Report (January First 2016 up to December 31th 2016) and from the period starting January First, 2013 up to December 31th, 2015. The emission factor (EF) associated with the electricity grid, in the Québec territory, is 2,04 grams of CO₂e / kilowatt-hour. To pretend to claim a GHG reductions a PAI should generate a yearly electric consumption variation of > 490 000 kWh/year. The Project proponent, upon request, will show 6 different client facility example (Fromagerie Basques, Pourvoirie Fer à Cheval, Église Notre Dame du Lac, Clinique Montfort, Ferme L.H. Drainville and Les serres des Jardins).

⁴ **Scope 2 is also referred to as Energy Indirect GHG**, and is defined as 'emissions from the consumption of purchased electricity, steam, or other sources of energy (e.g. chilled water) generated upstream from the organization'.

APPENDIX A: THE ENERGY EFFICIENCY GHG REDUCTION, QUANTIFIED AFTER 1^{ER} JANUARY 2016

The project proponent, WILL Solutions Inc. (WSI), already recognized that there might be a double counting issue for the quantification for the period effective after January 1, 2015 from all 350 PAI, associated with the sectorial scope 3. The net GHG emission reductions (tCO₂e) involves by this possible double counting in this monitoring report is limited to the period of 2016 and for all PAI classified in the sectorial scope 3 and represents a volume of 220 815 tCO₂e. WSI, is still working, with the support of all the Sustainable Community members and several organizations representing the SMEs, to collaborate to settle this issue for the benefit of all Quebec' stakeholders in view of an inclusive social acceptance⁵.

A practical solution, simple and respecting at 100% the integrity of the RSPEDE⁶ and assessing the double counting issue, validated at international level, was already submitted, as a white paper analysis and document by the project proponent WSI⁷, in March 2015 to the high level of the MDDELCC administration which has the full authority in this matter. WSI has completed this proposal with a detailed findings' analysis⁸ (submitted to the MDDELCC in January 2018) of the current status quo, in response to a study realized by an academic and filed in December 2017), noting that this status quo is clearly unfavorable to the fair and equitable participation of all stakeholders in Quebec society to meet climate challenges. WSI is pursuing (November 2018) its discussions with the actual MELCC (formerly the MDDELCC) to address this matter. The ownership of all GHG emissions and GHG reductions are still in the hands of all non-regulated entities participating in the WSI project and the MELCC's claim on this issue of this property raises a number of issues⁹.

The Québec's Cap-and-Trade System for GHG allowances, an Emission Trading System (ETS) will be named in this monitoring report by its French acronym (RSPEDE). Extract from the technical Quebec overview¹⁰ there is the scope of the RSPEDE:

«Since the start of the first compliance period on January 1st, 2013, persons and/or municipalities that operate any facility whose annual GHG emissions (excluding CO₂ emissions related to the combustion of biomass) are greater than or equal to 25 kt of equivalent CO₂ (kt CO₂ eq.) have been regulated by the C&T system». «And as of January 1, 2015 (beginning of the second compliance period), any person or municipality that distributes in Québec fossil fuels whose combustion meets or exceeds the annual GHG emission threshold of 25 kt CO₂ eq. is also covered by the C&T system, thereby encompassing almost 85 % of Québec's GHG emissions».

⁵ Page 17, section about issues require particular attention http://www.vgg.gouv.qc.ca/en/en_publications/en_rapport-annuel/en_fichiers/en_Rapport2016-2017-CDD.pdf

⁶ <http://www.mddelcc.gouv.qc.ca/changements/carbone/documents-spede/in-brief.pdf>

⁷ Page 23 of this WSI's white paper http://www.solutionswill.com/sites/default/files/u51/memoire_commission_robillard_vfinal.pdf

⁸ An extract in English: http://www.solutionswill.com/sites/default/files/u51/will-conclusions_2018-v5bfinal_eng.pdf the full findings in French is on the following link: http://www.solutionswill.com/sites/default/files/u51/will-constatations_janvier_2018-v5bfinal.pdf

⁹ Page 17, section about issues require particular attention http://www.vgg.gouv.qc.ca/en/en_publications/en_rapport-annuel/en_fichiers/en_Rapport2016-2017-CDD.pdf

¹⁰ Technical Overview of the Québec's Cap-and-Trade, page 7. <http://www.mddelcc.gouv.qc.ca/changements/carbone/documents-spede/technical-overview.pdf>

APPENDIX B: QUANTIFICATIONS OF THE BASELINE, PROJECTS AND TOTAL GHG REDUCTIONS

A summarized data sheet regrouped the summation of all the yearly eligible baseline and projects GHG emissions per Client facility participant to this monitoring report and is available in this Appendix B.

APPENDIX C: CLIENTS FACILITIES TECHNICAL DATA SHEET

An individual technical data sheet per Client Facility regroups the summation of all the yearly baseline and projects GHG emissions of all PAI eligible and is available upon request as Appendix C.

APPENDIX D: VERIFIED GHG REDUCTIONS PERIOD JANUARY 1ST 2010 UP TO DECEMBER 31TH 2015

The project proponent, WILL Solutions Inc. (WSI), asked to the VVB to verify in its mandate the net GHG emissions reductions quantified from the 79 clients facilities of this Monitoring report, from the period January 1st 2010 up to December 31th 2015. These nets GHG emissions reductions were realized under the validated project document at the time the VCS program did not have in place a disposition regarding overlapping period for monitoring reports as described in its version v3.4, issued on October 8th 2013 in the section 3.16.7 of its VCS program. The amount of these verified GHG's reductions represents 2 152 965 tCO₂e. This amount is excluded of this present monitoring report.

Table 1 Appendix D: list of GHG emission reductions quantified by vintage from the period January 1st 2010 up to December 31th 2015

year	GHG emissions in (tCO ₂ e)			
	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions (tCO ₂ e)
2010	222 355	1 317	<i>de minimus</i>	221 038
2011	279 169	3 465	<i>de minimus</i>	275 704
2012	278 950	-324	<i>de minimus</i>	279 274
2013	428 836	3 975	<i>de minimus</i>	424 861
2014	480 471	-713	<i>de minimus</i>	481 184
2015	468 667	-2 237	<i>de minimus</i>	470 904
Total 2010-2015	2 158 447	5 482	0	2 152 965

The 470 904 tCO₂e for the year 2015 representing the net GHG emission reduction of the year 2015 and written in the top Table included the net GHG emissions reductions (all from sectorial scope 3) realized after January First, 2015 which were realized under the Quebec phase II regulated carbon market, the RSPED. The amount of the net GHG emissions reductions from sectorial scope 3 and realized after January First, 2015 represents 125 805 tCO₂e. Therefore the vintage 2015 emission reduction (ER) subtracted of 125 805 tCO₂e is equal to 345 099 tCO₂e, as described in the following equation (470 904 – 125 805 = 345 099 tCO₂e). Detailed yearly calculations (2010-2015) for each client's facility are available upon request.

The project proponent took a conservative approach by excluding all grid electricity claims (scope 2 as defined by energy indirect GHG¹¹) from all the 796 PAI of this Monitoring Report (January First 2016 up to December 31th 2016) and from the period starting January First, 2013 up to December 31th, 2015. The emission factor (EF) associated with the electricity grid, in the Québec territory, is 2,04 grams of CO₂e / kilowatt-hour. To pretend to claim a GHG reductions a PAI should generate a yearly electric consumption variation of > 490 000 kWh/year. The Project proponent, upon request, will show 6 different client facility example (Fromagerie Basques, Pourvoirie Fer à Cheval, Église Notre Dame du Lac, Clinique Montfort, Ferme L.H. Drainville and Les serres des Jardins).

¹¹ **Scope 2 is also referred to as Energy Indirect GHG**, and is defined as 'emissions from the consumption of purchased electricity, steam, or other sources of energy (e.g. chilled water) generated upstream from the organization'.