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

Earthood Services Private Limited (ESPL)

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Summary:

Earthood Services Private Limited (here after ESPL) has performed the verification of the project "Energy Efficiency and Solid Waste Diversion Activities Within The Quebec Sustainable Community" VCS ID 929, against VCS Standard Version 3.7, 21/06/2017. The scope of verification includes confirming the implementation of the monitoring plan of the registered VCS PD (version 02) dated 05/07/2013 and the application of the approved VCS monitoring methodology.

Will Solutions Inc. (client) has contracted ESPL to conduct the verification and certification of emission reductions reported for the VCS project activity reference number 929 "Energy Efficiency and Solid Waste Diversion Activities Within The Quebec Sustainable Community" in Province of Quebec, Canada for the period 01/01/2016 to 31/12/2016 (including both days).
This VCS verification is the periodic independent review and ex post determination by ESPL of the monitored reductions in GHG emissions that have occurred because of the registered VCS group project activity during the defined monitoring period.

The scope of the verification is to establish/verify that:

- The project activity has been implemented and operated as per the registered PD/4/, and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place.
- The project activity has been implemented in accordance with the applied VCS approved methodology "VM0018-Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community" version 01/3/.
- The monitoring report and other supporting documents provided are complete in accordance with the latest applicable version of the completeness checklist for requests for issuance of VERs, verifiable, and in accordance with applicable VCS requirements;
- The actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan of the registered PDD and VCS approved methodology including applicable tool(s);
- The data recorded and stored as per the monitoring methodology including applicable tool(s).

The verification is consisted of three phases:

i) desk review of the project;

ii) follow-up onsite visit and interviews with project stakeholders;

iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted following ESPL internal quality procedures.

During the verification process 02 CARs, 08 CL and 01 FARs were raised. All the findings have been closed satisfactorily and the same has been discussed in Appendix 4.
Earthood has performed the third verification of the VCS project "Energy Efficiency and Solid Waste

Diversion Activities Within The Quebec Sustainable Community" having VCS Ref. Number 929. The verification includes confirming the implementation of the project as per description in the PD, the monitoring plan of the PD and the application of the monitoring methodology. ESPL confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. The emission reductions from the VCS project activity VCS reference 929 "Energy Efficiency and Solid Waste Diversion Activities Within The Quebec Sustainable Community" in Province of Quebec, Canada during the period 01/01/2016 to 31/12/2016 (including both days) amounts to 801,067 tCO_2e.

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1. INTRODUCTION

1.1 Objective

Will Solutions Inc. has contracted Earthood Services Private Limited (ESPL) to perform VCS Verification of the 'Energy Efficiency and Solid Waste Diversion Activity Within The Quebec Sustainable Community' in Province of Quebec Canada (hereafter called project). This project has already been registered as a VCS group project (VCS ID 929) /1/. The objective of this verification is a thorough and independent assessment of registered project activities against the applicable VCS requirement by the DOE. The verification process shall determine whether the proposed project activity complies with the requirements of latest VCS guidelines, applicability conditions of the selected methodology, relevant host country regulations and guidance issued by the VCS Board/2,3/.

1.2 Scope and Criteria

The scope of verification is to assess the claims and assumptions made in the VCS monitoring report (MR) against the VCS criteria, including but not limited to, VCS standard, applied methodology and other relevant rules and requirements established for VCS project activities.

The Verification is not meant to provide any consulting towards the project participants. However, stated requests for clarification and/or correction actions request may have provided inputs for improvement of the project design.

1.3 Level of Assurance

A draft verification report that is prepared by assessment team is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by ESPL are duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable VCS requirements as appropriate. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the verification team. The report approved by Quality Manager is endorsed by Managing Director, who is overall responsible to ensure quality, before final release. The further details of applicable procedures and responsibilities about ESPL Quality Management System (QMS) are available on its website (www.earthood.in).

ESPL's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. ESPL planned and performed the verification by obtaining evidence and other information and explanations that ESPL considers necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion the GHG emissions reductions reported for the project activity for the period 01/01/2016 to 31/12/2016 are fairly stated in the Monitoring Report Version 03.1 dated 29/01/2019. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology VM00018 v.1 and the VCS standard, Version V3.7, 21/06/2017. For more information, please refer to section six of this verification report.

1.4 Summary Description of the Project

The project activity is a group project which involves the Energy Efficiency (EE) and Solid Waste Diversion (SWD) activities within the province of Quebec. The project activity involves large client facilities, which may be residential, institutional and commercial, and will be grouped into a 'Sustainable community'. All these Project Activity Instances (PAIs) which are included into the group projects meet the following criteria set out by registered PD/4/;

a. Located inside the Quebec territory
b. Be implemented after January First 2010
c. Be a registered member of the group project (contract with Will Solution Inc)
d. Having or using a similar technology or measures as the generic PAIs and falling in scope 3 and 13
e. Be auditable and verifiable
f. Project unit GHG reduction are inferior to 5000 MT eCO2e/year.

All the EE and SWD activities are grouped into 9 Generic Project Activity Instances (PAIs) which are as follows:

A. Energy Efficiency
    a. Biomass energy project
    b. Saving energy on recycling activity
    c. Heat recovery
    d. Energy efficiency demand Side
    e. Fuel switching
    f. Energy conservation
    g. Energy efficiency demand side (building/major renovations)
B. Solid Waste Diversion
    a. Methane emissions avoidances
    b. Torrified biomass combustible

Will solutions has grouped total 796 PAIs, into one or another above group, from 79 client facilities into the project activity/4,6/. Out of 79 clients 70 new client facilities which have 704 new PAIs have been included into the group in the current monitoring period (01/01/2016 to 31/12/2016). One old client facility from previous verification has also added 48 new PAIs in the current monitoring period. In total, there are 79 client facilities and 796 PAIs in this verification. The inclusion eligibility criteria of all these new client facilities and PAIs is checked by 'Will Solutions Inc'. and described in the later section of this verification report. The summary of the project activity is mentioned in the table 1 below;

Table 1: Summary of the project information

Title of the Project Activity	Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community
Location of the project	Quebec Province, Canada
Project Participant	Will Solutions, Inc., Canada
Start date of the PA	01 January 2010
Baseline Methodology	"Energy Efficiency And Solid Waste Diversion Activities within a Sustainable Community" VM0018 version 1.0
Monitoring Period	01/01/2016 to 31/12/2016
Crediting Period	01/01/2010 to 31/12/2019
Total number of client facility	79

Total number of PAIs	796
New client facility included into the group in current monitoring period	70
New PAIs included in the current monitoring period	762 (704 for the new clients +48 for the old client)
Emission reduction verified	801,067 tCO_2e

2 VERIFICATION PROCESS

The registered VCS project is undergoing third verification under VCS, the approach adopted to ensure the quality of emission reductions is described in the following sections.

2.1 Method and Criteria

ESPL assessed and determined whether the proposed implementation and operation of the project activity, and the steps taken to report emission reductions comply with the criteria and relevant guidance provided by the VCS Board. The verification process consist of the following three phases;

- A completes check and desk review of the VCS monitoring report
- Site visit and follow up interviews with project stakeholders
- The resolution of outstanding issues and issuance of final report and opinion.

ESPL assessment team, on sample basis, has also physically visited the 4 client facilities which has total of 175 PAIs (which includes 110 from scope 3 and 65 from scope 13) to verify the accuracy of reported information/13/. The information (client name, sectoral scope, contact details, address, technology used, baseline etc.) reported in MR for the client facility and PAIs were cross verified during the site visit for the 4 clients site sampled and found consistent. The selection of 4 samples by the PP for the auditors on site assessment and sampling was found in line with the applied methodology/3/.

2.2 Document Review

A desk review was conducted by the verification team that included

a) A review of the data and information presented to verify its completeness;

b) A review of the registered monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;

c) An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;

A complete list of documents/evidences reviewed is included as Appendix 3.

2.3 Interviews

The name of the personnel interviewed and the subject discussed are summarized in the table below/7/.

Table 2: The summary of the personnel interviewed

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Clermont	Martin	Will Solution Inc	23-24-25/01/2019	• Operation and performance of project activity • Data management and reporting, QA/QC systems • Monitoring / measuring systems & data verification • Record keeping • Metering guidelines, meter specifications – Accuracy, make • Calibration requirements – procedure, frequency/ scheduling, records	Kaviraj Singh
2.	Kaestli	Christophe	Will Solutions Inc	23-25/01/2019	• Project implementation, operation, boundary, technical specifications	Kaviraj Singh
3.	Lesage	Claudia	Will Solutions	25/01/2019	• Data collection, recording and archiving • Baseline and project emissions and leakages • ER calculation methods	Kaviraj Singh
4.	Dessureault	Michel	Will Solutions	23-24-25/01/2019	• Emergency procedures – Change / failure in meters	Kaviraj Singh

2.4 Site Inspections

A site visit was undertaken by ESPL team on 23-25/01/2019 to carry out the following;

a. An assessment of the implementation and operation of the registered project activity as per the registered VCS PD and VCS MR;

b. A review of information flows for generating, aggregating and reporting the monitoring parameters;

c. Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PD;

d. A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;

e. A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;

f. A review of calculations and assumptions made in determining the GHG data and emission reductions;

An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters. The summary of the activities conducted on site is provided in the table below.

Table 3: On-site inspection

Dates of on-site inspection: 23-25/02/2019				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1	An assessment of the implementation and operation of the registered CDM project activity as per the registered PDD or any approved revised PDD;	Various client facilities located in Quebec province were visited (detailed in later section)	23-24/01/2019	Kaviraj Singh
2	A review of information flows for generating, aggregating and reporting the monitoring parameters;		25/01/2019	Kaviraj Singh
3	Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the registered monitoring plan;	Will solution office in Montreal	25/01/2019	Kaviraj Singh
4	A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;	Will solution office in Montreal	10/12/2018	Kaviraj Singh

5	A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;	Various client facilities located in Quebec province were visited (detailed in later section)	23-24/01/2019	Kaviraj Singh
6	A review of calculations and assumptions made in determining the GHG data and emission reductions;	Will solution office in Montreal	25/01/2019	Kaviraj Singh
7	An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.	Will solution office in Montreal	25/01/2019	Kaviraj Singh

2.5 Resolution of Findings

The objective of this step is to identify, discuss and conclude on the issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the registered project activity to achieve emission reductions or influence the monitoring and reporting of emission reductions. This is done based on the desk review and onsite assessment. The verification team prepares and/or updates a verification protocol (internal document) that records the conformities and non-conformities, which may be of following types;

CAR (Corrective Action Request) is raised if one of the following occurs:

- Non-compliance with the monitoring plan, the methodology or the standardized baseline are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met. All CARs and CLs raised by the ESPL during verification shall be resolved prior to submitting a request for issuance.

FAR (Forward Action Request) is raised during verification if the monitoring and reporting require attention and/or adjustment for the next verification period.

A total of 02 CARs, 08 CL and 01 FARs were raised in the current verification. All the findings that are raised and communicated to project participant during the verification are included under Appendix 4. The section also includes the response, if provided, by the project participants and an assessment by the verification team if it was closed out or otherwise.

2.5.1 Forward Action Requests

The project activity is undergoing third verification under VCS and the following FAR was raised during the validation of the project activity/8/.

FAR01 which was raised during validation to check the implementation status of the regulation 'Code National Du Batiment and Code De La Construction du Quebec' is applicable to the project or not and adjust the eligible emission reductions during each periodic verification. The review raised by VCS during the audit process was also referred while completing this audit process/9/. All previous verification report and validation report was checked to identify if there are any FAR raised/9,10,11/ and found okay.

FAR02 is raised in the current monitoring period which requires the PP to appropriately display the values of project and baseline emissions, and the representation shouldn't have any negative values.

2.6 Eligibility for Validation Activities

Not applicable.

3. VALIDATION FINDINGS

Not applicable.

3.1. Participation under Other GHG Programs

The group project is registered under VCS (Project ID-929) and the unique number of the VCS registration and other details of the projects were verified and found consistent with the VCS website. VERs for the previous monitoring period (01/11/2013 – 31/12/2015) are already issued by VCS board. PP confirmed the project is only registered with VCS, it shall not claim credits for the same GHG emission reduction under any other scheme. This was re-confirmed through a declaration submitted by the PP and hence accepted by the assessment team /12/.

3.2. Methodology Deviations

There is no methodology deviation identified during the current monitoring period.

3.3. Project Description Deviations

Not applicable.

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3.4. Grouped Project

3.4.1. Sampling process for validation of new project activity instances

Will solutions has included 70 new client facility into the group project in the current monitoring period (01/01/2016 to 31/12/2016) and these 70 facilities have 704 new PAIs, in addition one old client facility (Boisaco) from the previous monitoring period has also included 48 new PAIs. The total PAIs are 796 which ESPL has verified from the records made available. ESPL assessment team, on sample basis, has also physically visited the 4 client facilities which has total of 175 PAIs (which includes 110 from scope 3 and 65 from scope 13) to verify the accuracy of reported information/13/. The information (client name, sectoral scope, contact details, address, technology used, baseline etc.) reported in MR for the client facility and PAIs were cross verified during the site visit for the 4 clients site sampled and found consistent. The selection of 4 samples by the PP for the auditors on site assessment and sampling was found in line with the applied methodology/3/.

3.4.2. The number of new project activity instances added to the project in this verification period.

The list of new client facilities is given below. The list of the client and PAIs reported in the verification report has been verified from the record available with Will Solution in soft and hard copies/14/.

Table 4: List of the new client facilities included in the current monitoring period

	Clients facility	New PAI scope 3	New PAI scope 13
1	Municipalité Causapscal	1	0
2	Parc régional de Val D'Irène	2	0
3	Comm. Scolaire du Fleuves et des Lacs	1	0
4	Fibres de verres Rioux	4	2
5	Fromagerie des Basques	1	0
6	Municipalité St-Jean de Dieu	1	0
7	Club encadrement tech. Acériculture Est	28	0
8	Fromagerie le Détour	1	0
9	La Fabrique de Notre-Dame du Lac	2	0
10	MRC des Basques	1	2
11	Agriscar Coop Agricole	2	1
12	Commission Scolaire Kamouraska-RDL	14	0
13	CDBQ Centre de Dév. Bioalimentaire du Québec	1	0
14	Collège Sainte-Anne-de-la-Pocatière	5	0
15	Ville de la Pocatière	4	3
16	MRC de Kamouraska	1	21

17	Évêché Sainte-Anne-de-la-Pocatière	6	0
18	Ateliers mon choix	0	1
19	Bois Plancher PG	9	1
20	Mirroir Laurier	3	0
21	Bernard Breton	1	0
22	Bibby Ste-Croix et LaPerle	6	0
23	Québec MultiPlants	2	0
24	Bizz Magasin d'alimentation	0	1
25	Produits Forestiers Petit Paris	0	85
26	UTM Terrassement St-Louis	0	3
27	Grimard	1	1
28	Les Serres des jardins	1	0
29	Imago Village	1	0
30	Auberge Sacacomie	2	0
31	Ferme Tomchyrs	1	0
32	Imprimerie Marquis	1	0
33	Bâtiments Leeds Desjardins	2	1
34	Matériaux Spécialisés Louiseville	0	14
35	Fédération UPA Mauricie	0	39
36	Lauzon Bois énergétique	0	15
37	Municipalité Prévost	0	3
38	Compost Ste-Anne	0	1
39	Cégep de St-Jérôme	12	0
40	Centre de Tri Argenteuil	3	7
41	Moulures Warnet	10	1
42	Honda Ste-Agathe	2	1
43	Groupe Crête	7	0
44	Ville de St-Sauveur	1	0
45	Commission Scolaire des Laurentides	9	0
46	Les Serres Frank Zyromski inc.	20	3
47	Pourvoirie fer à cheval	1	0
48	Régie inter-municipale La Lièvre	0	48
49	Régie Inter-municipale La Rouge	0	3
50	Fabrique Paroisse St-André Sarre	1	0
51	Résidence Andréa Inc.	1	0
52	Fromagerie La Vache à Maillotte	1	0
53	Pneus GBM	1	0
54	MRC Témiscamingue	0	3
55	Entreprises P.L.C. Senneterre	1	0
56	Municipalité Papineauville	0	2
57	Fabrique St-André-Avelin	1	0
58	Municipalité Ange-Gardien	0	3
59	Municipalité Plaisance	1	0
60	CroquePommes	0	2
61	Ferme Chapeau Melon	1	3

62	Épursol	0	33
63	Lauzon Bois énergétique	22	15
64	Kenauk Nature	2	1
65	Lanauraie Pharma Inc. (Familiprix)	0	1
66	Les Émulsions Bourget	1	0
67	Municipalité Saint-Norbert	1	2
68	Ferme L.M. Drainville	8	0
69	Les Serres Lefort	76	12
70	Metalliage	34	0
Total		**322**	**382**

3.4.3. Quality and completeness of evidence, data and documentation relating to the new project activity instances.

Table 5: **On site audit conducted by the assessment team for client facilities**

Client Facility	PAIs in the facility	Date of site visit	EE or SWD	Activity performed	Person interviewed
Metelliage	34	23/01/2019	EE	An assessment of the eligibility criteria set out in the PD and applied methodology for new PAIs. Review of implementation and operation of the registered project activity as per the registered PD A review of information flows for generating, aggregating and reporting the monitoring parameters; A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources; A check of the monitoring equipment including calibration performance	Mohan Balalpour
Serro Lefort	76 (EE) + 12(SWD)	23/01/2019	EE & SWD		Omar Hurtado
UPA	39 (SWD)	24/01/2019	SWD		Josee Tardif

MSL	14 (SWD)	24/01/2019	SWD	and observations of monitoring practices against the requirements of the PD, the applied methodology A review of calculations and assumptions made in determining the GHG data and emission reductions; An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.	Jean-Francois Pichette

3.4.4. Conformance of the new project activity instances with the eligibility criteria set out in the project description.

The PP reviews and assesses the following eligibility criteria, set out in registered PD, for the inclusion of new project activity instances;

1. Located inside the Quebec territory, see appendix 10
2. Be implemented after January First 2010
3. Be a registered member of the SCSP project
4. Having or using a similar technologies or measures as the generic PAI based on scope 3 and 13
5. Be auditable and verifiable
6. Project unit GHG reduction are inferior to 5,000 MT eCO2/year

Every time a new client facility is added into the group project, PP reviews the eligibility using two separate checklists- 'Baseline Scenario and Historical Background' & 'Client Facility Audit Ex-Ante' to assess the eligibility/15,16/. These checklists include information about, but not limited to, the following;

a) Address of the entity to ensure that it's located inside the province of Quebec/17/
b) project has been implemented after the 01/01/2010 /18/. PP asks for the records about the date of implementation of the project activity (PAIs) and records and summarizes it in the checklist/19/.
c) Date of contract signed between client and Will Solution to be a member of sustainable community which ensures that the client facility is a registered member of SCSP project. The copy of all such contracts signed between client and Will Solutions Inc was verified by the assessment team and found okay /18/. The contract also gives the carbon credit ownership rights exclusively to will solutions/18/.
d) List of the technology measures are also included in the checklist to confirm that the project falls into generic PAIs based on scope 3 and 13.

e) The checklist also includes the dates of audit conducted by Will Solutions in the client facility and also record the data and documents verified for example the sales, production and fuel used data etc./20/

f) How much emission reduction are being achieved by the individual PAIs and if these emissions reductions are less than the limit of 5000 t CO2e prescribed in the registered PD. The client internal checklist is used to calculate the baseline emissions and project emissions using the default emission factor from PDD to arrive to the final emission reduction number and to verify weather or not the particular PAIs is below the limit of 5000 tCO2e/16/.

g) The checklist (Client Facility Audit Ex-Ante) also records the total number of PAIs in the client facility which is being included in the group project and which generic PAIs they fall into/16/.

h) The checklist 'Client Facility Audit Ex-Ante' also records the baseline of the project, baseline emissions, project emissions, emission factor used and its source along with the calculation of the emissions reduction achieved by the project on yearly basis/16/.

i) The monitoring parameter (for example quantity of biomass waste, fuel, products weight etc.) are also recorded in the checklist 'Client Facility Audit Ex-Ante'/16/. Will solutions on regular basis collect the information about the parameters used to calculate the baseline from the client facilities and record it.

These above referred two checklists are filled in and recorded for all client facilities by Will Solution and made available to the assessment team for verification. The ESPL assessment team has verified all the checklist applicable to the 4 client facilities which were visited during the site visit. Also, the filled in checklist record for 5 more client facilities were randomly selected and verified and found okay. Therefore, ESPL confirms that all new included facilities meet the eligibility criteria of the group project and correctly included.

4. VERIFICATION FINDINGS

4.1. Project Implementation Status

The project activity is a group projects which involves the Energy Efficiency (EE) and Solid Waste Diversion (SWD) activities which has been implemented in the province of Quebec. The project activity involves large client facilities which includes residential, institutional and commercial and are grouped into a 'Sustainable community'. All these PAIs which are included into the group projects meets the criteria set out by registered PD. It was verified that

a. All 796 PAIs of 79 client facilities are only located inside the Quebec territory. The location/address of all 79 client facilities was checked and found to be located in Quebec/17/.

b. All the PAIs are implemented only after January First 2010 /18,19/. The date of implementation of the technology is recorded in the checklist maintained by PP and all these 79 dates were verified and found to be meeting the requirement/15/.

c. These 79 client facilities have signed the agreement with Will Solution Inc to be a registered member of the group project/18/.

d. All the 79 clients were found using a similar technology or measures to the generic PAIs and fall into scope 3 and 13/16/.

e. The emission reduction calculation for all PAIs was checked and it was confirmed that all units have GHG reduction which are inferior to 5000 MT eCO2e/year/16/.

Assessment team concludes the following:

a) There are no material discrepancies between project implementation and the project description provided in the registered PD/04/.

b) The monitoring plan is implemented completely and monitoring system (i.e., process and schedule for obtaining, recording, compiling and analysing the monitored data and parameters) is appropriate.

c) There is no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology/02,4/.

d) The GHG emission reductions or removals generated by the project have not included in an emissions trading program or any other mechanism that includes GHG allowance trading/12/.

e) The project has not received or sought any other form of environmental credit, or has become eligible to do so since validation or previous verification/12/. The assessment team has also reviewed the project data and information and confirms that project doesn't pose a double counting risk with reference to Quebec's cap and trade program/29/.

f) The project is registered under VCS/01/

In view of the information's as verified above the assessment team is able to conclude that the project has been implemented as described in the project description.

4.2. Accuracy of GHG Emission Reduction and Removal Calculations

The project monitoring has been carried in accordance with the registered VCS PD/04/ and the applied methodology /03/. The monitoring plan laid in the registered PD is being followed at the site/04/. The assessment team has verified the information flow (from data generation, aggregation, to recording, calculation and reporting for these parameters including the values) in the MR/06/. The emission reductions are based on the energy efficiency and solid waste diversion measures.

4.3. Quality of Evidence to Determine GHG Emission Reductions and Removals

The below tables describe how the parameters, that is to be measured according to the monitoring plan of the registered PD, has been verified to confirm that the actual monitoring complies with the monitoring plan, monitoring data has been thoroughly assessed and that the calibration requirements are met.

4.3.1. Assessment of verification parameters

The below tables describe how the parameters, that are to be measured according to the monitoring plan, have been verified to confirm that the actual monitoring complies with the monitoring plan, monitoring data has been thoroughly assessed and that the calibration requirements are met.

Table 6: Assessment of verification parameters

<table>
<tr><td>Parameter</td><td colspan="2">Volume or Quantity of Fuel (L, m3, kg or MT), Electricity (kWh), Quantity of waste (Kg or MT), Length (m), Pressure (Kg/m2)</td></tr>
<tr><td>Means of verification</td><td colspan="2"><table>
<tr><th>Criteria/Requirements</th><th>Assessment/Observation</th></tr>
<tr><td>Measuring /Reading /Recording frequency</td><td>The 79 client facilities have different EE or SWD measures adopted and all these measures are inline and falling in one or another category of the generic PAIs mentioned in the registered PD/04/. Therefore, different PAIs have different monitoring system in place and the PAIs which are monitoring fuel and also other parameters like quantity of final product are being monitored. These monitored values are submitted to Will Solutions regularly and after the quality check at Will solutions these values are used for the emission reduction calculation for that client facility. The values provided by the client facility are recorded in the sheet ‘Client Facility Audit Ex Ante’ work sheet ‘ground data supply’/16/. These work sheet from all client facilities were checked, for the recorded values, by the assessment and found okay. Will Solutions also records the evidences like plant records, xls., sales data etc, of the parameter monitored by client facility. These records were also verified to ensure that correct values are used for emission reduction calculation and found correct.</td></tr>
<tr><td>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</td><td>The registered PD requires the parameters to be monitored on monthly basis. This parameter detail, sent by all client facilities to will solution, is recorded on annual basis but client facility are recording the data on monthly basis. The annual summarized data is used for emission reduction calculation done individually for all client facilities in the sheet ‘Client Facility Audit Ex Ante’ /16/. Therefore, the parameter measuring and reporting frequency was found in line with the applied methodology and registered PD/04/.</td></tr>
</table></td></tr>
</table>

	Monitoring equipment	The project currently includes 79 client facilities and 796 PAIs and therefore all client facilities have different monitoring devices based on their monitoring requirements. For example, the projects which are using the biomass for energy generation are using either public or inhouse weight bridges. Similarly, the facilities which are monitoring the fuel have the fuel meter gauge installed at the site. The assessment team has verified the installation of monitoring devices for the all four facilities visited and found those acceptable.
	Calibration frequency /interval:	The calibration of all the monitoring devices needs to be conducted as per the federal law of Canada/21/ and therefore all the monitoring equipment of the client facilities have to be in calibration. The assessment team has verified the calibration certificates of the monitoring equipment used for emission reduction calculation of the 4 client facilities visited and found these meter used are in calibration/22/.
	How were the values in the monitoring report verified?	The values generated at the client facility are recorded in the sheet 'Client Facility Audit Ex Ante' for all 79 facilities and individual sheets are maintained for all clients' facilities. The same sheet is used to calculate the emission reduction for each client facility. These clients sheet also includes the total number of PAIs within that client facility. The values of monitoring parameter reported in the above-mentioned sheet was cross verified from the plant records of 4 client facilities visited by the assessment team and found correct /23/. Will Solution also record all the evidences received from the client facilities which include the evidences of fuel used, product manufactures, biomass used etc, depending on the monitoring requirement of EE and SWD measures taken at the client's facility.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC	All the client facilities signed the agreement with Will Solutions Inc and this agreement requires the client to monitor maintain and record the data required for emission reduction calculation/18/. All client facilities record the data on continuous basis, however, depending

	processes in place?	on the nature of data and monitoring devices installed, is recorded on daily basis in some cases but at least monthly in all cases. All the recorded data is sent to Will Solutions regularly and also as and when asked by them for the purpose of emission reduction calculation and quality check. The records received by Will Solutions are then verified as per the implemented internal quality system and procedure/24/ and then archived by Will Solutions. The plant records for the monitoring, recording and archiving system in place were checked and found that data management ensures correct transfer of data to the emission reduction calculation /5/.
Findings	As defined in Annex 04	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology/3/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

4.3.2. Parameter fixed ex-ante

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

Table 7: The fixed ex-ante values used for ER calculation and their sources

Sectoral Scope used for ER calculation	Source, Date of data issued	Fuel/material	Unit	Emission factor (tCO2/Unit)
3	MERN, April 7, 2014	Butane	L	0.001764
3	MERN, April 7, 2014	Biomass and bark residue	Mt	0.000036
3	MERN, April 7, 2014	Diesel	L	0.002790
3	MERN, April 7, 2014	Electricity	kWh	0.000002
3	MERN, April 7, 2014	Gasoline	L	0.002361
3	MERN, April 7, 2014	Coke Carbon	Mt	0.002487
3	MERN, April 7, 2014	Natural Gas	M3	0.001889

3	MERN, April 7, 2014	Fuel Oil 2	L	0.002735
3	MERN, April 7, 2014	Fuel Oil 6	L	0.003146
3	Life cycle carbon benefits of aerospace alloy recycling MERN, April 7, 2014	Recycled Metal Material (FeTi)	Mt	0.000061
3	MERN, April 7, 2014	Propane	L	0.001544
13	USEPA, WARM version 2018	Food/organic waste	Mt	0.63
13	USEPA, WARM version 2018	Corrugated container cardboard	Mt	0.46
13	USEPA, WARM version 2018	Mixed paper primarily residential	Mt	0.22
13	CDM Methodology AMS IIIE	Sewage and sludge	Mt	2.08
13	USEPA, WARM version 2018	Asphalt shingles	Mt	0.02
13	USEPA, WARM version 2018	Medium density fibreboard	Mt	0.97
13	USEPA, WARM version 2018	Dimensional lumber	Mt	1.11

The original source of the used values has been verified from the sources and found that values are correctly used for emission reduction calculation /25,26/.

Other than the emission factors mentioned above, other ex-ante parameters used for ER calculations have been mentioned below:

Table 8: The fixed ex-ante values sourced from PD

Ex-ante Parameter	Means of Verification
OX	The parameter is described as '*Oxidation factor (reflecting the amount of soil or other material covering the waste)*' and is unit less. The value for the parameter is determined using CDM's "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site (Version 05.1.0)" and is provided in Appendix C. The parameter is in line with applied methodology/3/ and PD/4/

DOC_1	The parameter is described as '*Fraction of degradable organic carbon (DOC) that can decompose*' and is unit less. The value for the parameter is determined using CDM's "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site (Version 05.1.0)" and is provided in Appendix C. The parameter is in line with applied methodology/3/ and PD/4/
DOCj	The parameter is described as '*Fraction of degradable organic carbon (by weight)*' and is unit less. The value for the parameter is determined using CDM's "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site (Version 05.1.0)" and is provided in Appendix C. The parameter is in line with applied methodology/3/ and PD/4/
MCF	The parameter is described as '*Methane correction factor*' and is unit less. The value for the parameter is determined using CDM's "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site (Version 05.1.0)" and is provided in Appendix C. The parameter is in line with applied methodology/3/ and PD/4/
k_j	The parameter is described as '*Decay rate for the waste type j*' and is unit less. The value for the parameter is determined using CDM's "IPCC 2006 Guidelines for National Greenhouse Gas Inventories" and is provided in Appendix C. The parameter is in line with applied methodology/3/ and PD/4/

4.3.3. GHG calculation

The emission reduction as per the applied methodology equals the baseline emissions minus project emissions. The formula provided for the calculation of baseline emissions is per applied methodology VM0018 V1.0:

$ER_y = BE_y (EE+SWD) - PE_y$

Where as;

ER_y - Emissions Reduction in monitoring period

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

PE- Project emissions

ER_y = 803415 – 2348 = 801067.

The verification team confirms that appropriate methods and formulae for calculating baseline emissions have been followed. The assumptions, emission factors and default values that were applied in the calculations are justified. All the data were made available and have monitored as per required monitoring frequency. The means of verification for the values of parameters, used for baseline emission calculation, is described above.

4.4. Non-Permanence Risk Analysis

Not applicable.

5. SAFEGUARDS

5.1. No Net Harm

There are no negative environmental impacts associated with the project activity. The project indeed enhances conscious human gesture, prioritizing the behavioral change that guides the selection and integration of green technologies. The Sustainable Community project acts a catalyst role in achieving several sustainable development goals (SDGs) of the United Nations (UN). The social impact, in another word, the participation of all 79 client facilities (all citizens of the municipalities participating, all SME's employees participating and theirs customers), represent around 9.53% of the Quebec population. In reviewing the Appendix B of MR documentation, we confirm a positive impact on these following SDG:

1. SDG 9 Build resilient infrastructure, promote sustainable industrialization and foster innovation: The Sustainable Community as grouping under a social business model hundreds of micro projects as a social innovation as defined in Appendix B of MR.
2. SDG 11 Make cities inclusive, safe, resilient and sustainable: 15 client's facilities part of this Monitoring Report are cities and para municipal organizations as specified in Appendix B of MR.
3. SDG 13 Take urgent action to combat climate change and its impacts. The quantitative results of GHG reduction stimulate the behavioural change and complied in a Communitarian project.
4. SDG 17 Revitalize the global partnership for sustainable development: 10 client's facilities as NGO and an elaborated partnership with 14 NGO (several SADC) involved in microfinancing and sustainability as stated in Appendix B of MR.

5.2. Local Stakeholder Consultation

The project proponent got all local and regional stakeholders support required for the Project as mentioned into the Project Document/4/. The project proponent continues to adhere new community supports, including NGOs, such as the 14 SADCs; 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 Reseau des SADC et CAE, with a mission to facilitate microfinance to small and medium enterprises (SME) and municipalities in remote areas and recruiting some of their customers (more than 10 000 SME and municipalities), as new members of the Sustainable Community project.

Knowing their customers and their sustainable projects directly(on energy consumption and waste diversion), they facilitate their recruitment as new client facilities 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 14 SADCs and the Reseau SADC/27/, Several

post are available on SME's project impact on the Facebook account of the project proponent and assessment team has verified the information to be found correct/28/.

6. VERIFICATION CONCLUSION

Earthood Services Private Limited (ESPL), contracted by Will Solutions Inc. (WSI), has performed the independent verification of the emission reductions for the VCS project activity (VCS ID- 929) "Energy efficiency and Solid Waste Diversion Activities Within The Quebec Sustainable Community" in Quebec, Canada for the monitoring period 01/01/2016 – 31/12/2016 as reported in the Monitoring Report Version 03.1 dated 29/01/2019. Will Solutions Inc. is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity

ESPL commenced the verification on the basis of the baseline and monitoring methodology "Energy Efficiency and Solid Waste Diversion Activity within a Sustinable Community VM0018, Version 1.0', the monitoring plan contained in the registered VCS PD Version 02, dated 05/07/2013 and VCS guidelines version 3.7, Monitoring Report Version 03.1 dated 29/01/2019 as per the process described under Section 2 of this report.

ESPL verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. ESPL planned and performed the verification by obtaining evidence and other information and explanations that ESPL considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion the GHG emissions reductions reported for the project activity for the period 01/01/2016 – 31/12/2016 are fairly stated in the Monitoring Report Version 03.1 dated 29/01/2019. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology "Energy Efficiency and Solid Waste Diversion Activity within a Sustainable Community VM0018, Version 1.0", and the VCS standard.

Verification period: From 01/01/2016 – 31/12/2016 (including both days)

Verified GHG emission reductions and removals in the above verification period:

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)
2016 (01/01/2016 – 31/12/2016)	803415	2348	0.00	801067
Total	803415	2348	0.00	801067
Total after RSPEDE adjustment*	NA	NA	NA	**580252**
The achieved emission reduction in this monitoring period (01/01/2016-31/12/2016) has been adjusted, by the PP, following the applicable Quebec Phase II regulation of carbon market				

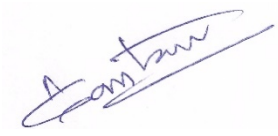
(RSPEDE). Therefore, the final amount ready for issuance is 580252 tCO2e (801 067 – 220 815 = 580 252). The adjustment made during the monitoring period are inline to applied methodology and registered PD. It was also noted by ESPL that Will Solution is perusing its discussion with the MELCC to address this matter.

ESPL would also like to highlight here that the net GHG emissions reductions quantified, from the period January 1st 2010 up to December 31th 2015, accumulated under the validated project document (PD) 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. However, ESPL verified these emission reductions during the current site visit conducted. The amount of these verified GHG's reductions represents 2 152 965 tCO2e and are detailed on the Appendix D of the Monitoring Report.

Verified GHG emission reductions and removals in the above January 1st 2010 up to December 31st 2015 period is given below.

	GHG emissions in (tCO2e)			
year	**Baseline emissions** (tCO2e)	**Project emissions** (tCO2e)	**Leakage emissions** (tCO_2e)	**Net GHG emission reductions** (tCO2e)
2010	222 355	1 317	*de minimus*	221 038
2011	279 169	3 465	*de minimus*	275 704
2012	278 950	-324	*de minimus*	279 274
2013	428 836	3 975	*de minimus*	424 861
2014	480 471	-713	*de minimus*	481 184
2015	468 667	-2 237	*de minimus*	470 904
Total 2010-2015	**2 158 447**	**5 482**	**0**	**2 152 965**

Approved by



Ashok K Gautam
Director **Date: 19/06/2019**

Earthood Services Privated Limited **Place: Gurgaon, Haryana**

APPENDIX 1: REFERENCES

S. No	Title of Document	Version	Date
1.	https://www.vcsprojectdatabase.org/#/project_details/929	NA	02/02/2019
2.	VCS Standard	3.7	21/06/2012
3.	VCS 'Methodology Energy Efficiency and Solid Waste Diversion Activity within a Sustainable Community' VM0018	1.0	NA
4.	VCS registered PD	2.0	05/07/2013
5.	Monitoring report & ER calculation	1.0	26/11/2018
6.	Monitoring report (Final) & ER calculation (Final-Annexure B)	2.1	17/02/2019
7.	On site audit attendance sheet of ESPL	1.1	23-25/01/19
8.	Registered Validation report by SGS UK. Pvt. Ltd.	1.0	11/07/2013
9.	Review queries raised by VCS during the previous verification	NA	04/05/2017
10.	Verification report for second verification period (01/11/13-31/12/2015)	4.2	29/11/2017
11.	Verification report for first verification (01/10/10 – 31/10/13)	1.1	31/10/2013
12.	Declaration by PP for no participation in any program other than GS	NA	25/01/2019
13.	Report of field sample survey used by ESPL	1.0	23-24/01/2019
14	Records (name contact and addressed etc.) of the client facilities	NA	01/01/2016-31/12/2016
15.	Client checklist record for inclusion 'Baseline Scenario and Historical Background'	NA	01/01/2016-31/12/2016
16.	Client checklist records for inclusion 'Quantification Client Facility Audit Ex-Ante'	NA	01/01/2016-31/12/2016
17.	Google maps (https://www.google.com/maps) used to verify the location in Quebec Provisions	NA	25/01/2019
18	Copy of contracts 'Contract de'Adhesion-Solution Communaute Durable' signed between Will Solution Inc. and 79 new client facilities	NA	01/01/2016-31/12/2016
19	The records about the implementation date (for example POs etc.) of the PAIs received by will solutions	NA	01/01/2016-31/12/2016
20	The records of sales data, fuel consumed data, production data etc	NA	01/01/2016-31/12/2016
21	Applicable law about calibration of monitoring equipment https://www.ic.gc.ca/eic/site/mc-mc.nsf/eng/h_lm00010.html	NA	01/01/2016-31/12/2016
22	Calibration certificates of weight bridges, scale and measuring equipment at 4 visited client facilities	NA	01/01/2016-31/12/2016
23	Plant records of 4 client facilities for monitored data like quantity of biomass, fuel used, electricity used, production data etc.	NA	01/01/2016-31/12/2016
24	QMS Manual of Will Solution 'Protocole general'	1.2	01/01/2013
25	http://www.efficaciteenergetique.gouv.qc.ca/fileadmin/medias/pdf/Facteurs_emissions.pdf	NA	NA
26	https://www.epa.gov/warm/versions-waste-reduction-model-warm#WARM%20Tool%20V14	NA	NA
27	http://www.sadc-cae.ca/index.php/en/thereseau/mission.html	NA	NA
28	https://www.facebook.com/SolutionsWill/	NA	NA
29	Annex B; Summary of ER generated by all individual units (avoidance of double counting)	NA	NA

APPENDIX 2: Competency Statement

Competence Statement			
Name	Kaviraj Singh		
Country	India		
Education	Ph.D. (Environmental Engineering), IIT Delhi Masters (Energy & Environmental), DAVV Indore		
Experience	15 Years +		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-II.D., ACM0006, AMS-I.A., AMS-I.C., AMS-II.B., AMS-III.H, ACM0002, ACM0001, AM0080		
Local expert	YES (India)		
Financial Expert	YES		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, TA 13.1, 13.2)		
Reviewed by	Abhishek Mahawar	**Date**	01/03/2018
Approved by	Ashok Gautam	**Date**	01/03/2018

Competence Statement			
Name	Anshika Gupta		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	3 Year +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.A., AMS-II.G., ACM0002, AMS-III.A.V.		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	Yes (TA 1.2, TA 3.1)		
Reviewed by	Abhishek Mahawar	**Date**	01/03/2018
Approved by	Ashok Kumar Gautam	**Date**	01/03/2018

Competence Statement			
Name	Shreya Garg		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	6 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., ACM0002, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2, TA 3.1)		
Reviewed by	Abhishek Mahawar	**Date**	01/03/2018
Approved by	Ashok Gautam	**Date**	01/03/2018

APPENDIX 3: Abbreviations

BEF	Baseline Emission Factor
CAR	Corrective Action Request
CL	Clarification Request
CO2	Carbon dioxide
EB	Executive Board
FAR	Forward Action Request
GHG	Green House Gas
ISO	International Standards Organization
kW	Kilowatt
kWh	Kilowatt hour
MR	Monitoring Report
MW	Megawatt
MWh	Megawatt-hour
PD	Project Description
PP	Project Proponent
PAI	Project Activity Instances
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Voluntary Carbon Standard
VCSA	Voluntary Carbon Standard Association
VCS PD	VCS Project Description
VCUs	Voluntary Carbon Units

APPENDIX 4: Finding Overview

Table 9. Remaining FAR from validation and/or previous verification

FAR ID	01	**Section no.**	E.2	**Date :** 25/01/2019
Description of FAR (Remaining FAR from validation and/or previous verification)				
A FAR was raised in the validation report version 1.0 dated 11/07/2013 issued by SGS. FAR01 was raised to check the implementation status of the regulation 'Code National Du Batiment and Code De La Construction du Quebec' is applicable to the project or not and adjust the eligible emission reductions during each periodic verification.				
Project participant response				**Date :** 30/01/2019
The Code was update in June 2015 and its change has no impact on the Project Document (PD validated in 2013). It is the latest update of this Code				
Documentation provided by project participant				
Web reference of the update of the Code is available through the link https://www.rbq.gouv.qc.ca/domaines-dintervention/batiment/la-formation/code-national-du-batiment-2010-modifie-quebec.html				
DOE assessment				**Date:** 02/02/2019
The link of the updated code has been provided by the PP which has been verified by the assessment team. The Quebec Building Code (Code), which consists of the 2010 National Building Code and amendments made by Quebec (modified Quebec), came into force in June 2015 has no impact on the project. The assessment team also confirm that that are no other new or revised codes applicable to project. The raised FAR is closed for this verification. CLOSED.				

Table 10. FAR raised in the current verification

FAR ID	02	**Section no.**	E.2	**Date :** 13/02/2019
Description of FAR (Remaining FAR from validation and/or previous verification)				
The raised FAR required PP to appropriately display the values of project and baseline emissions and the representation shouldn't have the negative values.				
Project participant response				
NA				
Documentation provided by project participant				
NA				
DOE assessment				
NA				

Table 11. CAR & CL from this verification

CAR ID	03	**Section no.**	E.2	**Date :** 25/01/2019
Description of CL				
The monitoring report version 1.0 dated 26/11/2018 on its page 10 mentioned that 70 new client facility has been added in the current monitoring period (01/01/2016-31/12/2016). Following the PD page 10 which specify the eligibility requirements for the inclusion of new project activities & also referring to the applied methodology VM0018 V1, PP need to provide further information in the Monitoring Report, along with documentary evidences used, on how it was checked and ensured that all new 76 client's facilities (322 PAI for energy efficiency and 382 PAI for scope 13) meet the following criteria; 1. All new 70 client facility are located only in Quebec? 2. The date of the implementation of all these PAIs is after 01/01/2010? 3. The technology used by all these PAI (322+382) are using the technology similar to the measures defined in generic PAI? 4. Maximum emission reduction from an individual project unit is lesser than 5000 tCO2e/year? 5. All these PAIs are residential, commercial, institutional or industrial buildings? 6. Client (Will Solution Inc.) has the right to use the project emission reductions? 7. The useful life of ECMs and the remaining useful life of existing baseline equipment?				
Project participant response				**Date :** 30/01/2019

The project proponent (pp) has developed and formalized a structured approach to:

- to check all the eligibility criteria of the new PAIs as per the VM0018 methodology
- to determine the ownership of the potential credits
- to quantify the potential reductions and determine the baseline and project scenario
- to confirm the additionality of the PAI

All this information is gathered and stored in a controlled folder for each site/PAIs.

The positive review of this information initiates the contracting between the PP and the client facility.

Upon contract signature, the PP is auditing the client site and the information relevant to:

- the localization within Quebec
- the technology/method of achieving the reduction and which scope applies (3 and/or 13)
- the year of implementation
- the key parameters of the reduction and how they are measured and controlled

All the information is compiled in the «Protocole général», (version 1.2). The internal process of collecting data and ensure their pertinence and reliability is then carried on where the client site is asked to share all the documents required to justify the GHG reduction. Upon completion of gathering documents, and compiling, a field audit report (RA) is issued and QC/QA reviewed and aggregated to Baseline Scenario and Historical Background; a quantification document (calculation sheet) is built with monitored data/evidences referenced and supplied by each new client facility. The baseline and project emissions are calculated internally, after confirmation of the appropriate E.F. " which are validated in a double approval process. This document was named by the pp Quantification. Both documents, Baseline Scenario and Historical Background and Quantification for each client facility regroup client's facility folders. These documents have been submitted for verification to the VVB.

1. All 70 new are located only in Quebec? At the time of audit, the PP has verified each client's facility location, and their geo-localization. Table 2 (Detail on the new PAI) sums it all up in the Appendix B of the Monitoring Report.
2. The date of the implementation of all these PAIs is after 01/01/2010? Yes, the pp has checked based on evidences that all new PAI were implemented after January First 2010. It's documented, for each client's facility and their PAIs inside the two documents: Baseline Scenario and Historical Background and Quantification.
3. The technology used by all these PAI (322+382) are using the technology similar to the measures defined in generic PAI? Yes. The pp has qualified, classified and associated each new PAI with his benchmark of common practice and the proper generic PAI (common practice which was validated at the PD level). It's documented, for each client's facility and their PAIs inside the document: Quantification.
4. Maximum emission reduction from an individual project unit is lesser than 5000 tCO2e/year? Yes. The pp has qualified, based on evidences, than the new individual PAI is less than 5000 tCO_2e/yr. For grouped PAIs, the PP has identified the PAI with the highest yearly reduction to ensure that it is under the documented threshold it's, for each client's facility and their PAIs inside the document: Quantification.
5. All these PAIs are residential, commercial, institutional or industrial buildings? Yes. The pp qualified each client's facility, based on evidence, and all new PAI are done in residential, commercial, institutional or industrial buildings. It's documented, for each client's facility and their PAIs inside the document: Baseline Scenario and Historical Background

6. Client (Will Solution Inc) has the right to use the project emission reductions? Yes, each client's facility signed a standard contract with the pp with a clause which confirms its ownership of the GHG reductions associated to the new PAI eligible to Sustainable Community project. It's documented, for each client's facility and their PAIs inside the document: Baseline Scenario and Historical Background. 7. The useful life of ECMs and the remaining useful life of existing baseline equipment? Yes the pp has reviewed these criteria in all PAI associated to generic PAI X (as common practices) entitled: energy efficiency demand side; New Buildings/major renovations. It's documented, for each client's facility and their PAIs inside the document: Quantification.
Documentation provided by project participant
Both document, Baseline Scenario and Historical Background and Quantification for each client facility were submitted for verification to the VVB, on Wednesday January 23, 2019.
DOE assessment **Date:** 02/02/2019
PP has an implemented system named 'Protocole General' in place which defines the system and procedures to be used to check and verify the eligibility criteria before any new client facility including the PAIs are included in the project. The implemented system defined how the eligibility criteria for new PAIs inline to methodology, ownership of carbon credit, baseline and project scenario and additionality of the PAIs is checked and verified. Client used dedicated checklists 'Field Audit Report' 'Baseline Scenario and Historical data" and 'Quantification Sheet' and these sheets are filled up for every client facility and PAIs against the set eligibility criteria and baseline data etc. and then recorded after quality check. Only after a client facility and PAIs meeting all the required criteria the PAIs are included in the grouped project. PP has provided the applicable procedures, evidences and records to demonstrate how the eligibility criteria for inclusion is met. All the evidences and records was checked and found acceptable. CL is CLOSED.

CL ID	04	**Section no.**	E.2	**Date :** 25/01/2019
Description of CL				
The MR version 1.0 dated 26/11/2018 in its section 2.3 provide information about additionality however, further information' supported by documentary evidences, is required on the following; 1. How the additionality of the all new units (704) was demonstrated following section 6 of applied methodology (VM0018 V1) and registered PD section 2.5. Further, how it is demonstrated that all PAI followed the 'CM Combined Tool to Identify the Baseline Scenario and Demonstrate Additionality and also the cost saving associated with energy efficiency are included in the investment analysis? 2. How the baseline was established for the new PAI especially on the following points; a) Which option was selected out of 4 options given on page 32 of the applied methodology for energy and waste? b) The adopted measures for energy efficiency and waste management are not business as usual scenario and would have not happened without the benefits of carbon?				
Project participant response				**Date :** 30/01/2019

1. The pp has verified the additionality of all new PAI by following the procedure of its internal protocol. Each PAI additionality assessment is made as per the VM0018 methodology (respectively the economic viability of the PAI without the carbon credits, the first of its kind, and disruption from common practices. In addition, the pp qualifies, classifies and associates each PAI to the proper generic (10 practices which were validated at the PD level). The confirmation of additionality evidences is documented, for each client's facility and their PAIs inside the document: Quantification.
   At Sustainable Development project level, additionality is demonstrated by incitement to behavioral change, sharing of expertise and the cost of all process of the monetization of the GHG reductions, which is a first of its kind and not a common practice.
2. The baseline was established for all new PAI, according to the methodology and the Project Document validated and its internal protocol:
   - Historical evidences and data of the PAI before the implementation of the ECM or waste diversion/recycling activities
   - Modelling of the PAI outputs for the baseline scenario,

   a. For each new PAI the baseline is determined as per the methodology and the PD, and establishes by referencing each new PAI to a generic PAI, For example, for a number of PAI of scope 13, baseline is the landfilling of the waste stream. Regarding sectoral scope 3, baseline was the historical consumption of fossil fuel before the implementation of the new PAI. In every case, PAIs are **un-**common practices.
   b. The adopted measures are not business as usual scenario, It's documented, for each client's facility and their PAIs inside the document: Quantification.

Documentation provided by project participant

Document, Quantification for each client facility was submitted for verification to the VVB on Wednesday January 23, 2019.

DOE assessment	**Date:** 02/02/2019

PP while assessing the eligibility criteria also assess the addtionality of the project inline to the provisions made in the registered PD. The internal checklist named 'Quantification' is used to assess which additionality argument the included facility falls into and accordingly the checklist is filled. All new facility are demonstrated as 'not a common practice' and therefore found eligible for inclusion in the group project. Similarly, for the baseline established for the PAIs the historical data was collected. The recorded evidences were checked and found okay. CL CLOSED.

CAR ID	05	**Section no.**	E.2	**Date :** 25/01/2019

Description of CAR

1. The verification report version 4.2 dated Nov 29, 2017 has reported 8 client facility on its page number 09 also the monitoring report (version 2, dated 16/11/2017) for the same period on its page 10 reported 8 clients facility and total 74 PAI. However, the current monitoring report for the period 01/01/2016 to 31/12/2016 on its page 10 reported 9 client facility in the previous monitoring period (01/01/2015 to 31/12/2016) and also in the spread sheet 'Appendix B' reported 92 PAIs in total.
2. The Appendix B reports 79 new clients in total and 704 PAIs. Previous verification reported 74 PAIs and therefore the total PAIs (new and old) should be 778 however the total PAIs reported is 796 in Appendix C sheet 'instruction por VVB'.

Please clarify this inconsistency?

Project participant response	**Date :** 30/01/2019

Project proponent revised the information mentioned in the Appendix B. The declaration of new client facilities still validated. For the first verification (Feb. 2014), we had 6 clients' facilities. The second verification (Nov. 2017), we had 8 clients facilities, which 7 were new one. When a client facility did not supplied their information's & evidences at time, their quantification, for the current verification, is postponed until the next verification. The 9 clients' facilities, which are not new facility on this Monitoring Report, are highlighting yellow on the Appendix B, spreadsheet, Table 2; Detail on the new PAI.
Documentation provided by project participant
New version of the Monitoring Report, dated of January 29, 2019 and its Appendix B on Table 2 (Detail on the new PAI).
DOE assessment **Date:** 02/02/2019
The inconsistency in the monitoring report of previous verification and this verification has been corrected and its confirmed that there were 9 client facility in the previous monitoring report. It is now confirmed by the assessment team that there were 9 client facility in the previous monitoring report and in the current monitoring report another 70 client facility are included. In totality, there are 79 client facility and 796 PAIs in the current monitoring period. CL CLOSED.

CL ID	06	**Section no.**	E.2	**Date :** 25/01/2019
Description of CL				
The values of baseline emissions and project emissions are directly inserted in the summary spread sheet (Appendix B V24nov) and therefore it's not possible to verify the formulas are correctly applied and are inline with the applied methodology and registered PDD. Kindly provide a sheet wherein the applied formualas and values are verifiable or example sheet which uses the information from source to final emission reduction (ER=BE-PE).				
Project participant response				**Date :** 30/01/2019
The output of each PAI (being quantified in SI units -meter, kilogramme, liter) is consolidated for each PAI: It is usually part of the PAI process. For example, in the case of the biomass furnace, the number of biomass loads carried to the furnace is recorded, A Daily Report is issued by the loader driver for each working day. The driver is dating and signing the Daily Report. Then internally, the Daily Report are consolidated and consolidation of the different Daily Report provide precise furnace biomass consumption per weeks, months. At the time of the Audit Report, the PP conducts an analysis of the system reliability and robustness and verifies internal evidences with consolidated figures. Following the audit report (R.A.) a quantification document (calculation sheet) is build based on consolidated data monitored referenced by the evidences supplied by each client facility, calculations (based on proper emission factor) are prepared internally with formula which are validated internally in a double approval process. For each vintage of PAIs per clients facility, formulas and values are verifiable which uses the information from source to final emission reduction (ER=BE-PE). This document is named by the pp Quantification. The summation of all vintage calculation is then regrouped on a front page of this document and regrouped into 2 sectorial scope (3 and 13) to present consolidated information for each client facility (ER=BE-PE). Then all summation calculation per client facility (ER=BE-PE) is regrouped by 17 sub-groups (territorial division and client's facility already verified in former MR) as presented in Appendix B, C and D.				
Documentation provided by project participant				
The document Quantification for each client facility was submitted for verification to the VVB, on Wednesday January 23, 2019. Appendix B on Table 2 (Detail on the new PAI).				
DOE assessment				**Date:** 02/02/2019

PP has explained that the emission reduction for each client are being calculated in an individual sheet named 'Quantification' and the ER calculated for each 79 clients facility are then summed up in Appendix B (xls.) of the monitoring report. The values received from client'x facility and used for emission reduction calculation in the sheet 'Quantification' and the summary of ER calculation in Appendix B has been cross verified from the data and found okay. CL CLOSED.

CL ID	07	**Section no.**	E.2	**Date :** 25/01/2019
Description of CL				
The baseline emissions are reported lesser than project emissions in some cases however the net emission reduction for these client facility are calculated positive. For example ER sheet Appendix D-V24 Nov, sheet 'Quantif. 2015 Scope 13' cell G18, H18 J18 and G24, H24 and J24 and also G31, H31 etc. The same inconsistency has also been observed in many cases in spread sheet 'Appendix BV24Nov' sheet 'Quantif.2016 Scope 13'. Please also clarify why the baseline and project emissions is added up in some cases? Ideally the PE should be subtracted from BE. Why the project emissions are significantly higher than the baseline emissions and are also negative but still the final emission reduction comes out to be positive?				
Project participant response				**Date :** 30/01/2019
The project proponent prepared a quantification document for each client facility, which compiled yearly (vintage) Baseline(BE), Project(PE) and Reduction(ER) as (ER=BE-PE); from 2010 up to 2016 and for each PAI divided in two group: sectorial scope 3 and 13. The presence of negative value in the Baseline and Project emission (is related to negative emission factor from USEPA) and occurred only in sectorial scope 13. To refer to Fibres de verres Rioux. To calculate its GHG's emission baseline, we utilized EFs from USEPA for urban biomass waste and cardboard. USEPA is taking in account the sequestration of CO_2 (in the baseline scenario for some waste stream. We double valid that is not affecting the total Emission Reductions(ER) calculations. For small value, less than we did not change presentation. For the next Monitoring Report (number #4) we will displays both way for all PAI, without regard to the volume of GHG reductions For larger quantity of ER, as for the VCS program compliance and at their request, all the GHG Emission factor (EF) used for the calculation baseline (sectoral scope 13) have to be positive avoiding to display a negative baseline GHG emission value. As some EF we have used (from USEPA, Warm version 2018) are negative, we have maintained the arithmetic logic of the emission calculations of each PAI (baseline, project and reduction), but have only changed the presentation of their display. The quantity of the GHG reductions remains the same in both displays.				
Documentation provided by project participant				

The document Quantification for each client facility was submitted for verification to the VVB, on Wednesday January 23, 2019.
Appendix B on Table 2 (Detail on the new PAI).

The project proponent prepared a quantification document for each client facility, which compiled yearly (vintage) Baseline(BE), Project(PE) and Reduction(ER) as (ER=BE-PE); from 2010 up to 2016 and for each PAI divided in two group: sectorial scope 3 and 13. The presence of negative value in the Baseline and Project emission (is related to negative emission factor from USEPA) and occurred only in sectorial scope 13.

2. To refer to Fibres de verres Rioux. To calculate its GHG's emission baseline, we utilized EFs from USEPA for urban biomass waste and cardboard. USEPA is taking in account the sequestration of CO_2 (in the baseline scenario for some waste stream. We double valid that is not affecting the total Emission Reductions(ER) calculations. For small value, less than we did not change presentation. For the next Monitoring Report (number #4) we will displays both way for all PAI, without regard to the volume of GHG reductions

3. For larger quantity of ER, as for the VCS program compliance and at their request, all the GHG Emission factor (EF) used for the calculation baseline (sectoral scope 13) have to be positive avoiding to display a negative baseline GHG emission value. As some EF we have used (from USEPA, Warm version 2018) are negative, we have maintained the arithmetic logic of the emission calculations of each PAI (baseline, project and reduction), but have only changed the presentation of their display. The quantity of the GHG reductions remains the same in both displays

Our complementary answer referring to Appendix D about example ER sheet Appendix D-V24 Nov, sheet 'Quantif. 2015 Scope 13' cell G18, H18 J18 and G24, H24 and J24 and also G31, H31:

Sub-total			**0**	**0**	**0**	**0**	**0**
1	03-SADC- Basques	Comm. Scolaire du Fleuves et des Lacs	0	0	0	0	0
2	03-SADC- Basques	Fibres de verres Rioux	2	2	-11,6	-44,7	33,1
3	03-SADC- Basques	Fromagerie des Basques	0	0	0	0	0
4	03-SADC- Basques	Municipalité St-Jean de Dieu	0	0	0	0	0
5	03-SADC- Basques	Club encadrement tech. Acériculture Est	0	0	0	0	0
6	03-SADC- Basques	Fromagerie le Détour	0	0	0	0	0
7	03-SADC- Basques	La Fabrique de Notre-Dame du Lac	0	0	0	0	0
8	03-SADC- Basques	MRC des Basques	2	2	-30,2	-321	290,8
Sub-total			**4**	**4**	**-41,8**	**-365,7**	**323,9**

1. In any case all the pp calculations respect the equation: **ER=BE-PE**
Ø For G18, H18 and J18: -11,6- -44,7 = 33,1 √
Ø For G24, H24 and J24: -30,2 - -321 = 290,8 √
2. The presence of negative value in the Baseline and Project emission is related to negative emission factor from USEPA) and occurred only in sectorial scope 13.
If you apply the USEPA methodology and emission factors: for scope 13 methane avoidance all the EF are negative because there is CO2 sequestration
In our case the BE EF is -1,11, whereas the PE equals -2,71
Applying the formula+ ER= BE - PE therefore ER=-1,11-(-2,71) =1,60.

DOE assessment	**Date:** 13/02/2019

PP has clarified that the emission factor used for scope 13 are taken from USEPA (Warm version 2018) which have some emission factor as negative for especially for biomass because of the accountability of carbon sequestration. However, the biomass used in the case of project activity was waste biomass and no deforestation of cutting of biomass is involved in the project and therefore the negative value isn't applicable here. The explanation given by PP has been acceptable however, the raised CL has been converted into a FAR. The raised FAR required PP to appropriately display the values of project and baseline emissions and the representation shouldn't have the negative values. CL Closed.

CL ID	08	**Section No.**	E.2	**Date :** 25/01/2019
Description of CL				
1. The VCS monitoring report template version 03 section 3.2 requires the following things to be report in the table; • Value applied • Type, Serial Number, accuracy class etc. for the meter used for monitoring the parameters However, these things were not found reported in the submitted MR. 2. The VCS MR template has been altered for example section 4 of template (Quantification of GHG emissions….') is not consistent with the MR (its has section 34 instead).				
Project participant response				**Date :** 30/01/2019
1. The data monitored mentioned by the VVB are reported, for each client's facility. It's all documented, for each client's facility and their PAIs inside the document: Quantification. 2. The MR has been updated to correct the alteration				
Documentation provided by project participant				
New version of the Monitoring Report, dated of January 29, 2019 The document Quantification for each client facility was submitted for verification to the VVB by an USB key, on Wednesday January 23, 2019.				
DOE assessment				**Date:** 02/02/2019
The revised MR has the required information about the monitoring parameters. CL CLOSED.				

CL ID	09	**Section no.**	E.2	**Date :** 25/01/2019
Description of CL				
The baseline of the PAIs has to be established at the per registered PDD (common practice of CDM additionality tool). However, it is not clear how the baseline of the client facility Group 13, number 12 (Bois Energetigue Lauzon) which is production of biomass pallets has been verified with reference to the use of biomass pallets for the avoidance of fossil fuel (pre project scenario has been consider the use of fossil fuel)? For example, how it was assured that consumer who is buying these pallets are not using the pallets before the project activity and would continue to use oil.				
Project participant response				**Date :** 30/01/2019

The additionality by substitution of fossil oil is based on: • Procurement contracts with major institutional clients who represent the majority of the pallets orders and who are converting fossil oil furnace to biomass. This is part of initiatives aiming at addressing the climate change issues. For those pallets for residential usage, the growth of the demand associated to the higher costs of pallets confirms that it is not a substitution of already existing biomass furnace, but newly implemented installations. In fact the existing biomass furnace is running with wood taken in the immediate vicinity of the installation and the replacement of this source by pallets is more expansive.
Documentation provided by project participant
NA
DOE assessment **Date:** 02/01/2019
PP has explained that the baseline for biomass briquettes is the use of fossil fuel. CL CLOSED.

CL ID	10	**Section no.**	E.2	**Date :** 25/02/2019
Description of CL				
The registered PD on page 10 requires that per unit GHG emission reduction are inferior to 5000 MT eCO2/y. However, no monitoring and calculation of emission reduction are done at individual level for PAIs rather an average of all the emissions from client facility has been calculated to arrive to a conclusion. It is not clear how the requirement of the methodology has been met?				
Project participant response				**Date :** 30/01/2019
The pp has qualified, based on evidences, than the new individual PAI is lesser than 5000 tCO_2e/yr. It's documented, for each client's facility and their PAIs inside the document: Quantification. We revised, in quantification process, when PAIs are regrouped, than the highest individual PAI is less than 5000 tCO_2e/yr.				
Documentation provided by project participant				
NA				
DOE assessment				**Date:** 02/02/2019
The eligibility criteria of each PAIs is checked for the estimated ER sheet named 'Quantification' by the clients for all PAIs to ensured that units are within the permissible limit.				

CL ID	11	**Section no.**	E.2	**Date :** 25/01/2019
Description of CL				
The registered PD on page 10 set one of the eligibility criteria that the project be implemented after January First, 2010. It's not clear how the PP (Will solution) is checking for all new included client facility that the technology or interventions are done only after 2010. Also, in one case MSL the implementation of the technology was done in 2009 which is before the eligibility criteria. How the eligibility criteria was considered to be met.				
Project participant response				**Date :** 30/01/2019
The pp has checked based on evidences that all new PAI were implemented after January First 2010. It's documented, for each client's facility and their PAIs inside the document: Quantification. In the case of the client facility MSL, the full of PAIs implementation (urban biomass residues used as fiber in wood panel), arrived after a Research and Development (R&D) phase (2007) following by a pilot phase (2009). The full implementation came after in 2010.				
Documentation provided by project participant				

Communication with PP, records etc.	
DOE assessment	**Date:** 02/02/2019
Will solution has provided the justification with evidence support that the project implementation for MSL has happened only after 2010 and before that the project was in research and pilot phase. CL CLOSED.	