

Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community



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v3.4



Summary:

Perry Johnson Registrars Carbon Emissions Services, INC (PJRCES) performed the 2nd periodic verification of the emission reductions for VCS (Verified Carbon Standard) grouped project titled "Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community" (Project I.D. 929) during the selected monitoring period, which ranged from 01-01-2010 to 31-12-2015 for the 79 PAIs identified in the Monitoring Report, version 1, dated 05 January 2017.

The Project has been validated by SGS United Kingdom Limited based on the VCS PD version 2.0, dated 5 July 2013 and reported in the validation report version 3. The Project was registered as a VCS project activity on 11 July 2013 under approved VCS Methodology VM0018 version 1.0 "Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community".

An off-site desk review and an on-site visit have been conducted to verify the data submitted in the monitoring report. PJRCES verified the asserted emission reductions against the approved consolidated baseline methodology VM0018 version 1.0 "Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community", on the basis of the VCS Standard, V3.6, 19 October 2016, as well as criteria given to provide for consistent project operations, monitoring and reporting.

Based on the assessment, PJRCES confirms that the Project is implemented as planned and described in the validated VCS PD. The monitoring plan is in compliance with the applied methodology VM0018 version 1.0 "Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community" and the actual monitoring has been carried out in accordance with the monitoring plan in the validated VCS PD. The monitoring system is fully in place and the emission reductions are calculated without material misstatements. PJRCES is able to certify that the implementation of the project has resulted in GHG emission reductions of **514,840 tCO2** equivalent during this monitoring period.

PJRCES's opinion regarding the reported emission reductions for the given monitoring period is based on the information sought and also reviews of publicly available information where applicable. ISO-14064 guidelines have been applied in principle to assess the key issues like accuracy, completeness and conservativeness of the information. PJRCES's verification/certification of GHG emissions is limited to this information evaluation.

Issuance and utilization of certified GHG-emission reductions is beyond the scope of PJRCES.



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VERIFICATION REPORT: VCS Version 3

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1 INTRODUCTION

1.1 Objective

Will Solutions, Inc. has commissioned PJRCES, Inc to perform the 2nd VCS verification of greenhouse gas (GHG) emission reductions of the grouped project activity "Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community" (hereafter referred to as "the Project") for the period, which ranged from 01 January 2010 to 31 December 2015. See Table 6 below for specific verification periods for each client facility.

PJRCES, as the verification body (VB) of the Project, has been accredited as a DOE by UNFCCC and is recognized by the VCS program http://database.v-c-s.org/verification-validation/find-vvb to work as VB under Sectoral Scopes 3 and 13. PJRCES also meets the competence requirements as set out in the ISO 14065:2007.

The verification under VCS Standard, version V3.6, 19 October 2016 is the independent *ex-post* quantification and certification of the GHG emission reductions achieved by a project activity which has completed validation under VCS v3 or validated under a VCS approved GHG program.

The objective of this verification is to verify the reported voluntary emission reductions generated by the Project for the 2nd verification monitoring period and to confirm that actual monitoring systems and procedures are in compliance with that described in the monitoring plan and the additional requirements stated by the VCS Association (VCSA).

The above work is carried out through an independent assessment and a written assurance is provided on the GHG emission reductions achieved for the period specified.

1.2 Scope and Criteria

The scope of the verification covers independent objective review and *ex-post* determination of the monitored GHG emission reductions by the project activity "Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community".

The specific scope of the verification work involves:

- To verify that the project activity is implemented as per the project details of the validated project design document (PD) or the VCS PD.
- To assess whether the emissions reductions determined are in conformance with the monitoring plan of the VCS PD and the approved VM0018 methodology.
- To express a conclusion whether reported data are accurate, complete, consistent, and transparent with a reasonable level of assurance and free of omission or material error, based on the review of the reported data and emission reduction calculations.



The approach adopted by PJRCES verification team is risk-based, drawing on an understanding of the risks associated with reporting of GHG emissions data and the controls in place to mitigate these. Definition of materiality is: 1) Any misstatement greater than 1% of the Project's GHG assertion and 2) qualitative non-conformities with VCS Standard, version V3.6, 19 October 2016 requirements. Qualitative non-conformities with the VCS Standard, the VCS methodology VM0018 version 1.0 "Energy Efficiency And Solid Waste Diversion Activities within a Sustainable Community", and the validated PD are also considered material during the verification process.

The request for issuance of Verified Carbon Units (VCUs), verified and certified by PJRCES, shall be made by the project proponent to the VCS registry in accordance with the most recent version of the VCS Program Guide, VCS Project Registration & Issuance Process. In view of the above, PJRCES's responsibility is limited only to verification and certification of the GHG emission reductions achieved during the specified period.

1.3 Level of Assurance

In line with VCS Standard, version V3.6, 19 October 2016 requirements and as per ISO 14064-3:2006 paragraph A.2.3.2, a "reasonable level of assurance" is defined for the verification of the project.

This implies that, based on the process and procedures conducted, PJRCES confirms that the GHG assertion in the monitoring report:

- is materially correct and is a fair representation of the GHG data and information, and
- is prepared in accordance with VCS requirements, the validated PD and the approved methodology for information pertaining to GHG quantification, monitoring and reporting.

PJRCES has carried out the verification work as per this requirement and has prepared this report to a reasonable level of assurance with a maximum allowable materiality threshold of 1% as outlined in Section 5.3.1 of the VCS Standard, version V3.6, 19 October 2016. Summary Description of the Project

1.4 Summary Description of the Project

TABLE 1						
Title of the Project Activity	Energy Efficiency And Solid Waste Diversion Activities					
	within the Quebec Sustainable Community					
Location of the project activity	Quebec Province, Canada					
Commercial Operation Date	01 January 2010					
Project Participants	Will Solutions, Inc. from Beloeil, Canada					
Baseline and Monitoring	onitoring VM0018 version 1.0 "Energy Efficiency And Solid Waste					
methodology:	Diversion Activities within a Sustainable Community"					
VCS Project I.D	929					
Project's crediting period	01 January 2010 to 31 December 2019 (Renewable for					



	another 10 years)
Annual estimated emission reduction, in registered PD	2,285,200 t CO ₂ e
Verification Period covered in this Report	The verification period for this report varies by site and/or PAI, but are all between 01 January 2010 to 31 december 2015. See the Table of Verification Period Status below.
Emission reduction for this monitoring period	514,840 t CO₂e

As per the registered VCS PD, this grouped project would target a large range of "Client Facilities", all located inside the Province of Quebec, mainly small to medium sized companies, part of the industrial, commercial or institutional sector, and/or property of several and different owners and grouped together inside a "Sustainable Community" or "cluster".

The aggregated GHG emissions from small final emitters (SFE) of GHGs (warehouses, supermarkets, restaurants, shops, governmental and municipal buildings and offices, etc.) would make up a significant component of regional GHG emissions and hence, is a significant opportunity to reduce real GHG emissions. Towards the objective of enabling SFE's participate in offset origination activities, this project, as per VCS rules and regulations has been defined as a "Grouped Project", enabled through Will Solutions proprietary Information and Communication Technology (ICT) as well as the use of an electronic tracking platform.

As a grouped project, energy efficiency and solid waste diversion activities (project activity instances) have been initiated by a Sustainable Community Service Promoter (SCSP) at various client facilities grouped and located inside the Province of Quebec. These project activity instances could be located in residential, commercial, institutional, or industrial buildings/facilities. The SCSP will use a consolidated Information and Communication Technology-enabled data monitoring and collection system to track activity data for the client facilities under the project activity. Even though the activities of Client Facilities vary, energy consumption and waste management practices have been found similar across many businesses and organizations. This project is meant to work with and support the provision of single window reporting and measurement provided by a third party to capture the information required to quantify emissions reductions.

This project has been designed to be simple, yet rigorous to apply, measure, and monitor. The main Project objectives are:

- To gradually group together inside a "Sustainable Community or cluster", up to 10,000 Clients Facilities, located inside the Province of Quebec, that will achieve together a potential 22 852 000 tCO2e of GHG emission reductions for the period 2010-2020;
- 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;
- iii. To collect ground data in real time, and consequently, stimulate and enhance Industrial Commercial and Institutional (ICI) facilities for a better sustainable behaviour;



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

The Project has already been validated by SGS United Kingdom Limited based on the VCS Project Description (VCS PD) Version 2.0, dated 5 July 2013 and reported in the validation report version 1.0 dated 11 July 2013. The Project was registered as a VCS project activity on 30 July 2013 (Project I.D. 929) under approved VCS methodology VM0018 version 1.0 "Energy Efficiency And Solid Waste Diversion Activities within a Sustainable Community".

The VCS Project start date is 1 January 2010 on which the Project began generating GHG emission reductions.

The monitoring period for the Project under VCS ranges from 01 January 2010 to 31 December 2015. See the Table 5 below for specific monitoring periods for each site and/or PAI. This verification report presents the verification process carried for eight client facilities covering 79 PAIs in two categories i.e. energy efficiency and waste diversion activities. The details regarding the client facilities and PAIs covered are as provided in Table 2 below:



	TABLE 2								
S.No.	Client Facility	Energy	y efficiency PAI	Waste Diversion PAI					
		Existing New (added after the registration of the project activity)		Existing	New (added after the registration of the project activity				
1.	Boisaco	3	6	1	1				
2.	Gazon Savard		0		48				
3.	Recupere Sol		10		1				
4.	Eglise Notre Dame de Laterriere		1		0				
5.	Pourvoirie Wapishish		2		0				
6.	Eternal Spa		2		1				
7.	Pepiniere Boucher		1		0				
8.	Clinique Montfort		2		0				
Total	79 PAIs	3	24	1	51				

2 VERIFICATION PROCESS

2.1 Method and Criteria

The Project verification process is based on the VCS Standard, version V3.6, 19 October 2016 and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants.

For verification of emission reductions, PJRCES's approach involves broadly three steps:

- a) Completeness check and desktop review of the monitoring report;
- b) Onsite inspection and issuance of findings from the audit;
- c) Resolution of the findings and preparation of the verification report.



The prepared report and other supporting documents underwent an internal quality control before being deliverable to the client.

The following team members from PJRCES were involved in these steps:

TABLE 3							
Name	Role	Areas covered					
Scott Jones	Team Leader/Verifier	"Desktop review, site visit, interviewing project representatives, issuance and closure of findings, final report and certification preparation."					
Anjana Sharma	Independent Technical Reviewer	Technical review					

2.2 Document Review

On receipt of the Monitoring Report from the client, the completeness of information made available as per **Error! Reference source not found.** requirements was reviewed.

A desktop review was further carried out to assess the following:

- a) The validated VCS PD Version 2.0 dated 5 July 2013 with the monitoring plan;
- b) The VCS Monitoring Report version 1.0 dated 5 January 2017;
- c) The emission reduction calculation spreadsheet.
- d) The VCS validation report version 1.0 dated 11 July 2013.

A complete list of all documents reviewed is attached in Appendix I of this report.

2.3 Interviews

From 16 and 17 January 2017, PJRCES performed an on-site visit and interviewed with project stakeholders to confirm selected information and to resolve issues identified in the document review. Prior to that, PJRCES has checked and confirmed that the Project has been listed on the project pipeline dated 24 March 2010 in the VCS project database.



TABLE 4							
Interviewed personnel	Organization	Interview topics					
Martin Clermont	Will Solutions, Inc.(Project Owner)	 Project Design and implementation Technical equipment, calibration and operation 					
Christophe Kaestli (Team leader)	Certi Conseil (Project Developer)	 Monitoring Plan and management procedures Monitoring data 					
Marcelle Tremblay	Gazon Savard (Director of R&D)	 Data uncertainty and residual risks (QA/QC) Environmental Impacts 					
Jean François Landry Éloi Côté	Recupere Sol (President)	Compliance with National Laws and Regulations					
	(Environmental Compliance)						

2.4 Site Inspections

PJRCES carried out the site visit from 16 January 2017 to 17 January 2017, upon the Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community Project located within the Province of Quebec, Canada. The details of the personnel interviewed in the site visit have been detailed in section 3.3 above.

During the site visit, PJRCES visited two client facilities along with Will Solution's headquarters (central control for data collection and storage), which altogether accounted for 59 PAIs. The 59 PAIs accounted for approximately 95% of the current emission reductions for this 2nd monitoring period. The client facilities were selected based on the following parameters: normal level of sampling (Square root of the number of project activity instances, square root of 79 = 9 PAIs); Gazon Savard was selected due to their high level of emission reductions; and the Recupere Sol location was selected at random by PJRCES. The two client facilities visited comprised a total of 59 PAIs, which was well above the minimum requirement of 9. During the site visits, PJRCES verified the following:

- a) Visual inspection on key physical components and configuration of the operation and monitoring system;
- b) Physical inspection of the equipment, material processed, calibration of scales;
- c) Implementation status of the project, training plan and staff training records;
- d) Production log, including daily operation and maintenance record
- e) Information processes for generating, aggregating and reporting the selected monitored parameters, including, but not limited to production matrices for recycled plastic;
- f) Invoice cross-check information;
- g) Assumption adopted and calculation of the project emission, baseline emission and leakage;



h) QA/QC procedures.

2.5 Resolution of Findings

Based on the site inspection and review of documents & records, issues that needed correction, further elaboration, researched or added in order that the project activity meets the VCS Standard, version V3.6, 19 October 2016 and can achieve credible emission reductions were identified.

Findings established during the verification can either be seen as a non-fulfilment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality emission reductions is identified.

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

- Non-compliance with the monitoring plan or methodology 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;
- b. Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- c. Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- d. Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

A Clarification Request (CL) is raised, if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

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

To guarantee the transparency of the verification process, the concerns raised are documented with more details in Appendix II of this report.

2.5.1 Forward Action Requests

No outstanding forward action requests remain.

2.6 Eligibility for Validation Activities

Not applicable

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

Not applicable



3.2 Methodology Deviations

Not applicable

3.3 Project Description Deviations

Not applicable

3.4 Grouped Project

Not applicable

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

[General]

The Energy Efficiency and Solid Waste Diversion Activities within the Quebec Sustainable Community project document was prepared by Will Solutions Inc. to allow Will Solutions as project proponent (Sustainable Community Service Promoter (SCSP)), to quantify and originate GHG emission reductions in conformance with VCS Methodology VM0018 Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community (Version 1.0).

At the Sustainable Community Service Promoter (SCSP), the project has been implemented since January 1st, 2010. At the time of the project validation, 22 PAIs had been implemented at seven client facilities. These eight client facilities are indicated in Table 5 below. At the time of this verification activity, there are 79 PAIs, 4 at the existing client facilities and 75 at new client facilities. The details of the new PAIs along with their eligibility against the pre-defined eligibility criteria (as defined in VCS PD) has been provided in table 5 below:



	TABLE 5									
Client Facility	New PAI	EE PAI	WM PAI	Located In Quebec Province	Impl. After Jan 2010	Added within two years of start date	SCSP project	Generic PAI based on scope 3 and 13	Be auditable and verifiable	GHG reduction inferior to 5 000 MT eCO ₂ /year
Boisaco	7	6	1	√	V	V	V	Generic PAI I, II and III	V	V
Gazon Savard	48	0	48	\checkmark	\checkmark	$\sqrt{}$	\checkmark	Generic PAI II	$\sqrt{}$	$\sqrt{}$
Recupere Sol	11	10	1	V	√	V	$\sqrt{}$	Generic PAI II and IV	$\sqrt{}$	$\sqrt{}$
Eglise Notre Dame de Laterrere	1	1	0	V	V	V	√	Generic PAI VIII	V	V
Pourvoirie Wapishish	2	2	0	√	√	V	V	Generic PAI IV	V	V
Eternal Spa	3	2	1	V	V	V	$\sqrt{}$	Generic PAI II and IV	V	V
Pepiniere Boucher	1	1	0	V	1	V	V	Generic PAI VIII	V	V
Clinique Montfort	2	2	0	V	V	V	V	Generic PAI VIII and X	V	V

Table of Verification Period Status for the PAIs covered by this verification starting on 01 January 2010:

		TABLE 6
No.	Facilities	Period covered in 2013 for the First Verification
1	Boisaco	April 2012 to December 2015
2	Gazon Savard	January 2010 to December 2015
3	Recupere Sol	January 2012 to December 2015
4	Eglise Notre Dame de Laterrere	January 2013 to December 2015
5	Pourvoirie Wapishish	January 2013 to December 2015
6	Eternal Spa	January 2011 to December 2015
7	Pepiniere Boucher	January 2015 to December 2015
8	Clinique Montfort	January 2011 to December 2015

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Any PAIs added after the registration of the project are confirmed to be eligible against the Sustainable Community Project Units/PAI/BU classification and eligibility requirements Table 5 identified in the "Eligibility New PAI" tab within the Monitoring Report, Version 1, Dated 05 January 2017.

The total GHG emission reductions for the PAIs (79) included in this verification are 514,840 tCO2e.

This grouped project is implemented as of the first implementation of the first PAI since 01 January 2010, which was confirmed against the daily operation records by the verification team. The current Waste Diversion PAIs implemented are Boisaco, Gazon Savard, Recupere Sol and Eternal Spa. All the components of the project activity were in place and well operated, and no change to the project design was observed during the site visit. The operation and maintenance records for the three facilities visited have been provided during the site visits. No special event which would affect the monitoring of the project was observed during the given monitoring period.

[Generation system, verified against the registered PD]

As discussed above, PJRCES has performed an on-site visit for a sample project activity instances to verify the real implementation of the Project against the description in its registered VCS PD Version 2.0 dated 05 July 2013, and verified that emission reductions identified in the monitoring calculation spreadsheet for the Energy Efficiency and Solid Waste Diversion Activities within the Quebec Sustainable Community project.

The project boundary has been found to be consistent with that in the registered VCS PD Version 2.0 dated 05 July 2013. As per the registered VCS PD Version 2.0 dated 05 July 2013 and VCS validation report 11 July 2013, a sampling of the sources of GHG emissions attributable to the project activity were verified. The client facilities were selected based on the following parameters: normal level of sampling (Square root of the number of project activity instances, square root of 79 = 9 PAIs); Gazon Savard was selected due to their high level of emission reductions; and the Recupere Sol location was selected at random by PJRCES. The two client facilities visited comprised a total of 59 PAIs, which was well above the minimum requirement of 9.

Details of the two sites visited and their verification details are provided in Table 7 and the section below.

TABLE 7							
Client Facility	Generic PAI EE	Generic PAI WM					
Gazon Savard	0	48					
Recupere Sol	10	1					

Gazon Savard

[Gazon Savard, verified against the registered PD]

As stated in the table above, there are 48 PAIs (Waste Management) at this client facility.

Brief description of the Waste Diversion activity carried out at this PAI:



The PAI consists of mixing various waste materials with composting waste materials. Once composted, the compost is sold or used for growing sod on-site. This PAI is based on Waste Management on composting Activities. Total reductions are based on the difference of emission factors between processing wastes in accordance with the baseline scenarios versus composting activities.

During the on-site visit to the Gazon Savard facility, it was verified that the site began implemention of the project for this PAI on 01 January 2010. Through the physical onsite visit, it was confirmed that the facility and its composting operations meet PAI eligibility criteria and the operational specifications of the registered VCS PD Version 2.0, dated 05 July 2013. The eligibility requirements verified on-site were compared against those identified in the "Eligibility New PAI" tab within the Monitoring Report, Version 1, Dated 05 January 2017. As per the eligibility requirements, it was confirmed that this PAI meets the eligibility requirements.

The primary parameter monitored and reported is the quantity of waste received, which is then separated into the various compost areas and composted.

Onsite scales have been utilized for receiving of waste from numerous sources to the Gazon Savard facility.

All incoming shipments are weighed via an on-site scale. Scale SN: 230402 was certified by Measurement Canada on 03 April 2010 and Mettler Toledo on 29 September 2010, 19 December 2011, 26 September 2012, 24 October 2013, 27 December 2014, 09 February 2015 and 16 January 2016.

Recupere Sol

[Recupere Sol, verified against the registered PD]

This site has 10 energy efficiency PAIs and 1 waste management PAI.

Brief description of the activity carried out at this PAI:

The PAI consists of treating contaminated soils, permanently transforming them into clean reusable soils. Therefore, offering a second life to this soil by recycling rather than burying it in the environment. This PAI is based on waste management activities. The energency efficiency activities carried out at the Recupere Sol facility are based on changing of fuels to reduce emissions. Total reductions are based on the amount of contaminated soils treated on-site versus landfilling and the amount of alternative fuel consumed. Versus baseline fuel.

During the on-site visit to the Recupere Sol facility, it was verified that the site began implemention of the Project on 01 January 2012. Through the physical onsite visit, it was confirmed that the contaminated soil processing facility meets the same specifications of the registered VCS PD Version 2.0 dated 05 July 2013.

The eligibility requirements verified on-site were compared against those identified in the "Eligibility New PAI" tab within the Monitoring Report, Version 9, Dated 02 January 2014. As per the eligibility requirements, it was confirmed that this site meets the eligibility requirements.



All incoming shipments are weighed via an on-site scale, SN: 99B009339 was certified by Weigh-Tronix Canada on 12 June 2012, 29 August 2013, 7 November 2014, 17 December 2015 and 1 August 2016.

[Operation and maintenance of the current monitoring period]

The project was in normal operation as reflected in MR Version 1.0 dated 5 January 2017. There are no events or situations that occurred during this monitoring period which may impact the applicability of the methodology VM0018 Version 1.0.

[Management and QA/QC]

Management and operational system is in place. QA/QC procedures stipulated in the registered VCS PD Version 2.0 dated 05 July 2013 have been followed. Each site is designated with a person who is responsible for collecting their own on-site data. The data is then reviewed for accuracy against typical numbers expected, seasonal conditions, etc. Once reviewed, the data is the sent to Will operational staff. Will Solution operation staff is responsible for collecting data, uploading it to the Tracking Platform software (ITC platform) and realize the quantification of the eligible GHG reductions Mr. Kaestli with Certi Conseil, consult of the project developer is responsible, as internal QA/QC, to double validate the quantification. Will Solution' staff is then responsible for maintaining the data within the Tracking Platform software. The staffs were well trained and qualified. During the site visit, PJRCES was able to confirm that data collection and management system were in place and it is effective.

All required equipment and procedures are available and implemented in an appropriate manner. All necessary monitoring instruments are installed. All required instruments including standby and operating procedures for the same have been implemented in an appropriate manner.

4.2 Accuracy of GHG Emission Reduction and Removal Calculations

A total of 79 PAIs at 8 facilities were included in the verification activity. Twenty-seven PAIs, were identified as energy efficiency PAIs while 52 PAIs were identified as waste diversion PAIs.

4.2.1 Energy Efficiency Baseline

Emissions Adjusted Baseline EE	= the energy efficiency activities related baseline emissions plus any adjustments needed to adjust it to the conditions of the monitoring period		
Emissions Adjusted Baseline EE	= Emissions Adjusted Building/System Energy Consumption w/o ECM + Emissions Adjusted Maintenance + Emissions Adjusted Unit Operation		
Emissions Adjusted Building Ener	rgy Consumption w/o ECM	=	Emissions under SS B7 Adjusted Building/System Energy Consumption (w/o ECMs)
Emissions Adjusted Maintenance		=	Emissions under SS B8 Adjusted Maintenance
Emissions Adjusted Unit Operation		=	Emissions under SS B9 Adjusted Unit Operation: Biological/Chemical/Mechanical Processes

Baseline Calculation for Recupere Sol PAI IV Energy Efficiency Project

2010 Baseline Emissions (BE) = 45,930 **t eCO2** (cumulative baseline for 2012 up to 2015 ERs)



Based on the above methodology, the entire baseline emissions for all Energy Efficiency PAIs covered under the current verification period have been verified.

4.2.2 Solid Waste Diversion Baseline

Emissions Adjusted Baseline WASTE	= the waste related baseline emissions plus any adjustments needed to adjust it to the conditions of the monitoring period
Emissions Adjusted Baseline WASTE	= Emissions Adjusted Energy Consumption from Waste Processing + Emissions Adjusted Waste Decomposition and Methane Release

Emissions Adjusted Energy Consumption from Waste Processing = Emissions under SS **B10** Adjusted Energy Consumption from Waste Processing

Emissions Adjusted Waste Decomposition and Methane Release = Emissions under SS **B14** Adjusted Waste Decomposition and Methane Release

Recupere Sol PAI II Methane Avoidance Emission

2012 Baseline Emissions (BE) = 226 t eCO2 (cumulative baseline for 2012 up to 2015 ERs)

Based on the above methodology, the baseline emissions for the Solid Waste Diversion PAI covered under the current verification period has been verified.

4.2.3 Energy Efficiency Project Emission

Emissions Project EE	= sum of the energy efficiency related emissions under the project scenario		
Emissions Project EE	= Emissions Building/System	Energy Consumption wit	h ECM + Emissions Maintenance + Emissions Unit Operation
Emissions Build	ding Energy Consumption with ECM	=	Emissions under SS P7 Building/System Energy Consumption (with ECMs)
	Emissions Maintenance	=	Emissions under SS P8 Maintenance
	Emissions Unit Operation	=	Emissions under SS P9 Unit Operation: Biological/Chemical/Mechanical Processes

Project Emissions Calculation for Recupere Sol PAI I Energy Efficiency Project

2012 to 2015 Project Emissions (PE) = 14,144 t eCO2

2012 to 2015 Project Reduction = BE - PE = 45,930 t eCO2 - 14,144. t eCO2 = 31,786 t eCO2

Based on the above methodology, the entire baseline emissions for all Energy Efficiency PAIs covered under the current verification period have been verified.



4.2.4 Solid Waste Diversion Project Emissions

Emissions Project WASTE = sum of the waste related emissions under the project scenario

Emissions Project WASTE = Emissions Energy Consumption from Waste Processing

+ Emissions Waste Decomposition and Methane Release

+ Emissions Energy Consumed from Alternative Processing of Waste Use

+ Emissions Process Emissions from Alternative Processing of Waste

Emissions Energy Consumption from Waste Processing = Emissions under SS P10 Energy Consumption from Waste

Processing

Emissions Waste Decomposition and Methane Release = Emissions under SS P14 Waste Decomposition and Methane

Release

Emissions Energy Consumed from alternative processing of waste / use = Emissions under SS P16 Energy Consumed from alternative

processing of waste / use

Emissions Process Emissions from Alternative Processing of Waste = Emissions under SS P17 Process Emissions from Alternative

Processing of Waste

Recupere Sol PAI II Methane Avoidance Project Emission

2010 Project Emissions (PE) = 0 t eCO2

2010 Project Reduction = BE - PE = 226 t eCO2 - 0 t eCO2 = 226 t eCO2

Based on the above methodology, the baseline emissions for the Solid Waste Diversion PAI covered under the current verification period has been verified.

4.2.5 Monitoring Parameters

4.2.5.1 Energy Efficiency

Data / Parameter	Quantity of Waste - Recupere Sol
Data unit	Kg or MT
Description	Weight of waste which is diverted from landfill for being recycled, re-use.
Measured /Calculated /Default:	The weight of waste is reported on the Bill of Lading and the Invoice of each shipment.
Measurement Frequency	At each shipment or a monthly basis. Evidences will be recorded on Invoices.



QA/QC Procedures Applied, including calibration	The SPSC system applies the following QC/QA procedures: Data comparison with past performance Data comparison with similar Project Unit Data comparison with Data comparison with sector association. Project Unit Investigation for root cause analysis of data profile if outside range Project Unit Physical audit to validate the measurement devices conditions and collect related evidence.		
Verification Observations/Assessment	A weigh scale is used to verify weights of outgoing final product. Data are recorded per shipment and aggregated monthly. The weigh scale is calibrated every six months as required. The relevant information of the weigh scale has been shown in the Tables above.		
Conclusions	 PJRCES confirmed that: The equipment for monitoring is appropriately certified and calibrated and is in accordance with the registered VCS PD Version 2.0 dated 05 July 2013. QA/QC procedures have been applied in accordance with the registered VCS PD Version 2.0 dated 05 July 2013. 		

Data / Parameter	Volume or Quantity of Fuel – Recupere Sol		
Data unit	L, m3		
	, kg or MT		
Description	Volume or weight of each type of fuel combusted. This volume or weight of fuel is adjusted for both functional equivalence and units of productivity.		
Measured /Calculated	The Bill of Lading and the Invoice of each Fuel delivery is		
/Default:	consolidated. End of period residual fuel volume evaluation could be estimated.		
Measurement Frequency	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.		
QA/QC Procedures	The SPSC system applies the following QC/QA		
Applied, including	procedures:		
calibration	Data comparison with past performance Data comparison with similar Project Unit		
	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.		
Verification	The invoices reviewed for Propane and Butane deliveries		
Observations/Assessment	correlate with the calculations conducted by the project proponent.		



Conclusions	PJRCES confirmed that:		
	 The methods for monitoring is appropriate and is in accordance with the registered VCS PD Version 2.0 dated 05 July 2013. 		
	QA/QC procedures have been applied in accordance with the registered VCS PD Version 2.0 dated 05 July 2013.		

4.2.5.2 Waste Diversion

Data / Parameter	Quantity of Waste - Gazon Savard and Recupere Sol		
Data unit	Kg or MT		
Description	Weight of biomass which is diverted from landfill to composting and soil reuse.		
Measured /Calculated /Default:	The weekly number of loads delivered to the furnace is reported on the document titled Nombre de Godet pour alimentation des usines secondaires.		
Measurement Frequency	Recorded upon each shipment and aggregated on a weekly basis.		
QA/QC Procedures Applied, including calibration	The SPSC system applies the following QC/QA procedures: Data comparison with past performance Data comparison with similar Project Unit Data comparison with Data comparison with sector association. Project Unit Investigation for root cause analysis of data profile if outside range Project Unit Physical audit to validate the measurement devices conditions and collect related evidence.		
Verification Observations/Assessment	Weekly aggregate of number of loads of biomass are recorded on the Nombre de Godet pour alimentation des usines secondaires were verified against the matrices provided.		
Conclusions	 PJRCES confirmed that: The methods for monitoring is appropriate and is in accordance with the registered VCS PD Version 2.0 dated 05 July 2013. QA/QC procedures have been applied in accordance with the registered VCS PD Version 2.0 dated 05 July 2013. 		

The monitoring has been carried out in accordance with the monitoring plan contained in the registered VCS PD Version 2.0 dated 05 July 2013. All parameters were monitored and determined as per the monitoring plan.



4.3 Quality of Evidence to Determine GHG Emission Reductions and Removals

Based on the document review and physical site inspection, PJRCES can confirm that all necessary documentation were collected, referenced and aggregated and were easily accessible in hard-copy and electronic format. Measurements are performed by calibrated equipment, and the key data were cross-checked via other sources. No assumptions are used that have any material influence on reported emission reductions.

The evidence provided was sufficient for verification of the project and consistent with the requirements of the VCS Standard V3.6, 19 October 2016, VM0018 (Version 1.0), the registered VCS PD and the Project Monitoring Report and meets generally accepted evidentiary standards for best practice in GHG accounting.

As outlined above, the input data for calculating the emission reductions, the calculating process and the results are complete and transparent. Therefore, PJRCES is able to confirm the accuracy of the emission reductions.

4.4 Non-Permanence Risk Analysis

Not Applicable

5 SAFEGUARDS

5.1 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 of the members of its Sustainable Community project in view to convert them into VCU, sell 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 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).

PJRCES verifies this as accurate and no net harm identified.

5.2 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 SADC Haut Saguenay (SADC-HS) member of the Reseau des SADC et CAE, 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 SADC-HS and the Reseau SADC: <a href="http://www.sadc-nttp://www.s

<u>cae.ca/index.php/en/thereseau/mission.html</u>. Several post are available on SME impact are available on the LinkedIn account of the project proponent https://www.linkedin.com/company/will-solutions.



The project proponent identified as social impact, the upstream participation to all 79 PAI, citizens and employees involved in the chain of custody, The SCPP estimated such participation to near of 162 850 citizens and employees which represented near of 1,96% of the Quebec population, as calculated in the master quantification spreadsheet (Social Impact Co-Benefit). PJRCES can confirm a general yearly average of 1,086 T CO₂e/PAI, as calculated in the Monitoring Report, Page 5, Item 1.1. PJRCES verified this information as accurate.

6 VERIFICATION CONCLUSION

PJRCES, Inc. has carried out verification of the emission reductions achieved by the project "Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community" against the VCS guidance Version 3.4, 4 October 2012. The Project monitoring report, Project design document and the necessary evidence requested during the verification process have been supplied to enable PJRCES to arrive at an opinion on the Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community Project. The emission reductions generated from the grouped project, where energy efficiency and solid waste diversion activities have been initiated by a Sustainable Community Service Promoter (SCSP) for an assortment of Client Facilities grouped and located inside the Province of Quebec, have been compiled in a transparent manner, the data was found to be accurate within the uncertainty limits of the measurement equipment, and emission reduction calculations were found to include all the required sources.

The project proponent stated in its monitoring report that there might be a double counting issue for 27 PAI, associated with the sectorial scope 3 for the period beyond January First, 2015. The net GHG emission reductions (tCO2e) involved by this issue represents a volume of 14,926 tCO2e. This amount is already verified by this verification. The project proponent, with the support of all the Sustainable Community members, is collaborating at this time with the MDDELCC to settle this issue at the satisfaction of the VCS program, the integrity of the SPEDE and for the benefit of all Quebec' stakeholders in view of an inclusive social acceptance. Adjustment might have to be done in the next verification report. PJRCES confirms the net GHG emission reductions involved by this issue to be 14,926 tCO2e as indicated above. If it is determined at any point that these verified emission reductions are in fact considered double counting, these VERs will be corrected and deducted from future verifications.

PJRCES confirms that the Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community Project, developed by Will Solutions, inc, was implemented as per the VCS validated PD and that the emission reductions presented in the monitoring report version 1.0 dated 05 January 2017, are correctly determined as per the VCS Standard, V3.6, 19 October 2016 and the approved VCS Methodology VM0018 version 1.0 "Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community". Furthermore, the Project monitoring report and emission data calculations are considered accurate, complete, transparent, and free of material misstatements. The GHG emission reductions submitted in this first verification report are considered verified to a reasonable level of assurance.



Verification period: From 01 January 2010 to 31 December 2015

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

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2010	0	-28,681	de minimus	28,681
2011	137	-39,871	de minimus	40,008
2012	13,516	-101,132	de minimus	114,648
2013	19,272	-104,830	de minimus	124,102
2014	19,739	-122,735	de minimus	142,473
2015	21,422	-43,505	de minimus	64,927
Total	74,085	-440,754	de minimus	514,840



APPENDIX I: DOCUMENTS REVIEWED

No.	Type of document
1	Will Solutions, Inc.: Monitoring Report for Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community, Monitoring Period: 01 January 2010 to 31 December 2015, version 1.0 dated 05 January 2015.
2	Will Solutions, Inc.: Monitoring Report, Version 3, dated 03 January 2017 calculation spread sheet for the 2 nd Verification Monitoring Period.
3	Recupere Sol: Propane, Butane and Diesel invoices and and monthly aggregation record for fuel consumption.
4	Recupere Sol: Receiving records for waste loads delivered to the facility.
5	Gazon Savard: Receiving records for waste loads delivered to the facility.
8	Calibration certificates for the on-site scales at Recupere Sol and Gazon Savard
9	Contracts for Recupere Sol and Gazon Savard
10	IPCC 2006, Table 1.2 of Chapter 1 of Vol. 2 (Energy) of 2006 IPCC Guidelines on Nation al GHG Inventories
11	Approved VCS methodology VM0018 version 1.0, Energy Efficiency And Solid Waste Diversion Activities within a Sustainable Community.
12	EPA's Waste Reduction Model (WARM), version 12, dated February 2012.
13	Will Solutions, Inc.: Implementation process of the Sustainable Community Solution, dated July 2012
14	SGS United Kingdom Limited: VCS Validation report for the Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community Project, version 1, dated 11 July 2013.
15	Will Solutions, Inc.: Project Description (PD) for the Energy Efficiency And Solid Waste Diversion Activities within the Quebec Sustainable Community Project, version 2.0 dated 5 July 2013.
16	VCS Standard, V3.6, 19 October 2016,
17	VCS Program Guide, Version 3.6, 19 October 2016,



APPENDIX II: RESOLUTION OF CORRECTIVE ACTION / CLARIFICATION / FORWARD ACTION REQUESTS

Draft Report Clarification (CL), Corrective Action Request (CAR) or Forward Action Request (FAR) requested by verification team	Summary of Project owner response	Verification team conclusion
FAR Provide evidence of weigh tickets for the months of May, July and September for each month for Récupère Sol.	No problem. Recupersol is working to selected and scan the 3 evidence/yr from 2012 to 2105. You will get that at the latest this Thursday in the dropbox.	Reviewed weigh tickets. Accepted.
FAR Provide Propane invoices for Récupère Sol for each year.	Propane invoices from 2012-2015 are in the dropbox	Reviewed propane invoices. Accepted.
FAR Provide Butane invoices for Récupère Sol for each year.	Butane invoices from 2012-2015 are in the dropbox	Reviewed Butane invoices. Accepted.
FAR Provide Scale Calibration record for Récupère Sol for each year in the verification period.	Scale calibration 2014, 2015 and 2016 are already in the dropbox. The 2012 and 2013 will be send later this week.	Reviewed calibration records. Accepted.
FAR Provide Scale Calibration record for Gazon Savard for each year in the verification period.	Scale calibration from 2010 to 2015 are in the dropbox.	Reviewed calibration records. Accepted.
FAR Provide Weigh tickets for municipal wastewater treatment sewage sludge and Septic tank sludge (STS) for each year in the verification period.	 You have, in the dropbox in a spread sheet + a yearly invoices about the municipal wastewater sludge from 2010 to 2015 You have, in the dropbox, in a spread sheet + 2 invoices/yr about the STS from 2010 to 2015 	Reviewed weigh tickets. Accepted.