VERIFICATION REPORT

REUNIDAS CERAMIC SWITCHING NON-RENEWABLE BIOMASS PROJECT

Document Prepared by Earthood Services Private Limited

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Summary:

Brief summary of the project activity

The project activity involves fuel switching from native firewood from cerrado biome to rice husk. Thus, GHG emission reduction is achieved.

The project applies the CDM approved methodology AMS-I.E – Switch from non-renewable biomass for thermal applications by the user – version 01.0.

Scope of verification

Sustainable Carbon – Projetos Ambientais Ltda. has contracted ESPL to conduct the 4th verification of the project "Reunidas Ceramic Switching Non-Renewable Biomass Project" for the period from 01/08/2013 to 30/09/2017 (both days included).

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

- the latest available MR template was used and correctly filled up;
- the project activity has been implemented and operated as per the registered PD and that all physical features (technology, project equipment and monitoring and metering equipment) of the project are in place;
- 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 VCUs, verifiable, and in accordance with applicable requirements of the Verified Carbon Standard Version 4;
- the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan, the approved methodology including applicable tool(s) and/or, where applicable, the approved standardized baseline;
- the data are recorded and stored as per the monitoring methodology including applicable tool(s) and, where applicable, the standardized baseline.

In addition, ESPL has also been contracted to conduct the verification of SOCIALCARBON Standard of the project activity at Point 4, with regard to its relevant requirements, for the same monitoring period.

Conclusion

ESPL has performed the verification of the VCS project "Reunidas Ceramic Switching Non-Renewable Biomass Project", with VCS Project ID 65, for the monitoring period from 01/08/2013 to 30/09/2017 (both days included).

During the present VCS verification, 03 CLs and 02 CARs were raised and successfully closed. For the SOCIALCARBON verification, 04 CLs and 01 CARs were raised and successfully closed.

The verification team has confirmed the implementation of the project as per description in the VCS-PD, the monitoring plan of the PD and the application of the monitoring methodology (AMS-I.E – version 01). In addition, it was confirmed that the monitoring system is in place and the emission reductions are calculated without material misstatements.

The verified emission reductions amount to 28,918 tCO_2e in the above-mentioned monitoring period.

In addition, the verifier confirms that the project meets all relevant requirements established by the SOCIALCARBON Standard and its report identifies the social economic and environmental impacts of the project activity and presents the results obtained by meeting the "Brazilian Red Ceramic factories Indicators" – version 1.1.

CONTENTS

1 INTRODUCTION

1.1 Objective

Sustainable Carbon – Projetos Ambientais Ltda. has contracted ESPL to conduct the verification of the 4th verification of the project "Reunidas Ceramic Switching Non-Renewable Biomass Project" for the period from 01/08/2013 to 30/09/2017 (both days included) according to the requirements of the Verified Carbon Standard Version 4.

1.2 Scope and Criteria

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

- the project activity has been implemented and operated as per the registered PD and that all physical features (technology, project equipment and monitoring) of the project are in place;
- 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 VCUs, verifiable, and in accordance with applicable VCS Version 4 requirements;
- the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan, the approved methodology including applicable tool(s) and/or, where applicable, the approved standardized baseline;
- the data are recorded and stored as per the monitoring methodology including applicable tool(s) and, where applicable, the standardized baseline.

The verification of this monitoring period is based on the registered VCS-PD, MR and GHG emission reduction calculation spreadsheet and supporting documents.

In addition, the scope of the SOCIALCARBON verification is to establish/verify that:

- to have an independent third-party assessment in order to evaluate the accuracy and consistency of the SOCIALCARBON Standard – version 5.0 and "Brazilian Red Ceramic factories Indicators" – version 1.1, for this specific point in time – Point Four; and
- to verify the consistency of these Indicators and their evolution since last evaluation, with the established criteria to maintain the designation as SOCIALCARBON, following the SOCIALCARBON Standard.

1.3 Level of Assurance

The verification of this monitoring period has achieved a reasonable level of assurance.

1.4 Summary Description of the Project

The project activity involves fuel switching from native firewood from cerrado biome to rice husk in Reunidas Ceramic at the city of Cristalândia, State of Tocantins, Brazil. Thus, GHG emission reduction is achieved.

The project is listed at VCS and can be accessed by the following link: https://registry.verra.org/app/projectDetail/VCS/65

Some of the characteristics of the project activity are described below:

- Project Proponents: Cerâmica Reunidas LTDA and Sustainable Carbon – Projetos Ambientais Ltda.;
- Project Category: project (≤ 300,000 tCO2e/y);
- Methodology: AMS-I.E – Switch from non-renewable biomass for thermal applications by the user – version 01.0;
- Start Date: 01/04/2006 – date on which the project proponent began employing renewable biomass as fuel;
- Project Location: Reunidas Ceramic – Avenida Tocantins, s/n – City of Cristalândia – State of Tocantins – Brazil – geographical coordinates are: 10º 36' 11.4'' S, 49º 11' 54.6'' W;
- Project ownership: Cerâmica Reunidas LTDA is the project owner;
- Technical Data: 07 Round kilns.

The project has several social and environmental components that are discussed in detail in Section 4 below.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification process is conducted as per internal CDM Quality Manual and in accordance with criteria laid down by VCS. It includes the following steps:

- contract with PP for the scope and appointment of verification team and technical review team;

- completeness check of Monitoring Report;
- desk review of Monitoring Report and corresponding ER sheet by verification team and planning of onsite audit (including sampling approach to be applied);
- physical on-site inspection by verification team;
- follow up activities e.g., interviews;
- reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report;
- independent technical review of the draft verification report and final/revised documentation (e.g., Monitoring Report, corresponding ER sheet and evidences);
- reporting and closure of TR comments/findings (CARs/CLs/FARs) and final approval for the decision made;
- issuance of final verification report to contracted PP (or authorized representatives).

2.2 Document Review

A desk review was conducted by the verification team that included:

- a review of the data and information presented to verify its completeness;
- 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;
- 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;
- supporting documents.

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

A complete list of documents/evidences reviewed for SOCIALCARBON purposes is included as Appendix II.

2.3 Interviews

#	Interviewee	Date	Subject	

	Last name	First name	Affiliation			Team member
1	Silva Rocha	Edilberto	Reunidas Ceramic	17/07/2019	Ceramic management and operations, market and project benefits Project activity monitoring	Sergio Cruz
2	Pereira Campos	Edvaldo	Reunidas Ceramic	17/07/2019	Employee's labour conditions	Sergio Cruz
3	Haddad	Marcelo	Sustainable Carbon	17/07/2019	Project activity monitoring Excel calculations	Sergio Cruz

2.4 Site Inspections

Duration of on-site inspection: 17/07/2019				
#	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1	Opening Meeting	Cristalândia	17/07/2019	Sergio Cruz
2	Implementation and operation of project activity as per registered PD/previous verifications.	Cristalândia	17/07/2019	Sergio Cruz
3	Management and monitoring procedures followed at project site.	Cristalândia	17/07/2019	Sergio Cruz
4	Physical inspection of the project activity: site visit and interview of monitoring personnel.	Cristalândia	17/07/2019	Sergio Cruz
5	Verification checklist: compliance of monitoring procedures followed at project site with registered PD and monitoring methodology.	Cristalândia	17/07/2019	Sergio Cruz
6	Management and operational system: documentation, allocation of responsibilities, qualification and training, data recording & archiving, internal audit and management review and emergency procedures.	Cristalândia	17/07/2019	Sergio Cruz
7	Review of estimated ER calculations in accordance with applied methodology and relevant tools.	Cristalândia	17/07/2019	Sergio Cruz

8	Review of monitored data and relevant document in accordance with registered monitoring plan and applied monitoring methodology.	Cristalândia	17/07/2019	Sergio Cruz
9	Presentation of findings	Cristalândia	17/07/2019	Sergio Cruz
10	Closing meeting	Cristalândia	17/07/2019	Sergio Cruz

2.5 Resolution of Findings

The findings may be of following types: CAR – Corrective Action Request, CL – Clarification Request and FAR – Forward Action Request.

During the present verification, 03 CL and 02 CARs were raised and successfully closed.

For the SOCIALCARBON verification, 04 CLs and 01 CAR were raised and successfully closed.

The list of findings and their resolution are presented at Appendices IV and V of this report.

2.5.1 Forward Action Requests

No FAR was raised.

2.6 Eligibility for Validation Activities

ESPL holds the accreditation for validation of the sectoral scope.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project activity has no participation under any other GHG program.

3.2 Methodology Deviations

The project activity complies with the applied methodology AMS-I.E – Switch from Non-Renewable Biomass for Thermal Applications by the User – version 01.

No deviations were observed.

3.3 Project Description Deviations

According to information gathered during the site visit, the verification team has to confirm that all physical features (technology, project equipment, monitoring and biomasses) of the registered VCS project activity were in place and that the project participants have been operating the project activity as per the approved VCS-PD during the monitoring period.

The project has been implemented and operated as described in the VCS-PD. Nevertheless, one deviation has been observed. This correction was already implemented at previous monitoring periods and accepted by VCS: the registered VCS-PD sets that the project proponent (meaning the ceramic owner) would measure the quantity of renewable biomasses used (parameter $Q_{renbiomass}$). However, the parameter is monitored through the receipts and invoices of biomass received by the ceramic company. This means that the amount of renewable biomass is measured by the supplier and controlled by the ceramic owner by the receipts and invoices. This approach considers that it is the responsibility of the provider to measure the amount of biomass, since this information needs to be available in the sale invoice or receipt. As this information is used for commercial purposes, it is considered that data from the suppliers are a reliable source for this parameter.

In addition, as validated in the previous monitoring period, one new Round kiln was constructed. Therefore, during the present monitoring period, the ceramic has operated with seven Round kilns.

3.4 Grouped Projects

The project activity is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The project activity involves fuel switching from native firewood from cerrado biome to rice husk. During this monitoring period, Reunidas Ceramic used rice husk. The ceramic operates with 07 Round kilns.

As per the on-site assessment, observations, interviews and collected evidences, it was possible to assess that, in general, the project activity has been implemented as described in the VCS-PD, with all changes already approved in the previous crediting period.

There are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology.

In addition, the GHG emission reductions generated by the project have not become included in any emissions trading program or any other mechanism that includes GHG allowance trading. Moreover, the project has not received nor sought any other form of environmental credit, and neither has become eligible to do so since validation or previous verification. Finally, the project has not participated nor been rejected under any other GHG programs since validation or previous verification.

The main sustainable development contributions are:

a. use of clean and efficient technologies through the use of renewable biomass as fuel;

b. pioneer initiative that encourages the development of new technologies throughout the country;

c. use of renewable biomasses resulting in GHG emission reductions.

4.2 Safeguards

4.2.1 No Net Harm

The burning of the biomasses emits particulate material and CO_2 identified as negative impact. This also occurs when using fossil fuel. Nevertheless, as they are renewable biomasses, they have carbon neutral lifecycle.

Part of the ashes resulting from the burning are donated to small farmers in the region; the other part is being adequately stocked at the factory as the owner looks for a suitable destination.

Thus, the negative impacts caused by the project activity are being mitigated.

4.2.2 Local Stakeholder Consultation

The project participant has a good relationship with local community and has open channels in order to receive comments from local stakeholders. Thus, the project activity has a local stakeholder consultation access in place and working.

No comments/complaints have been observed during the monitoring period.

4.2.3 AFOLU-Specific Safeguards

No applicable as it is a non-AFOLU project.

4.3 Accuracy of GHG Emission Reduction and Removal Calculations

- the approved CDM methodology AMS-I.E – Switch from non-renewable biomass for thermal applications by the user – version 01 is applied to the project activity. GHG emission reductions are calculated as baseline emissions;
- no project emissions are considered for the project activity, in accordance with the applied methodology;
- no leakage is considered for this kind of project, in accordance with the applied methodology and "General guidance on leakage in biomass project activities", as all possible sources of leakage are demonstrated at the MR as:
  - there is no transference of equipment;
  - the quantity of biomasses to provide thermal energy for the project activity represents a non-representative quantity of these kind of biomasses, which avoids the possibility of leakage;
  - the project is expected to decrease the use of non-renewable biomass by similar users, especially due to the incentive of carbon credits;
- all methods and formulas used in the calculations of emission reductions have been followed in accordance to the applied methodology and monitoring plan of the validated at VCS-PD;
- all monitored data is traceable.

Fixed parameters:

- $EF_{projected\ fossil\ fuel}$ – CO_2 Emission factor of residual fuel oil: 77.4 tCO_2/TJ (as per Section 3.3 of VCS-PD);
- $NCV_{biomass}$ – Net calorific value of non-renewable wood: 0.018 TJ/ton (as per Section 3.3 of VCS-PD);
- $\rho_{non\text{-}renewable\ biomass}$ – Specific gravity of non-renewable wood: 0.5702 ton/m³ (as per Section 3.3 of VCS-PD);
- BF_y – Consumption of non-renewable biomass per thousands of ceramic units produced per year: 1.4255 ton of wood / thousands of ceramic devices (as per Section 3.3 of VCS-PD).

Monitored parameters:

- $Q_{renbiomass}$ – Amount of renewable biomass (refer to Section 4.2 of the MR);
- PR_y – Tonnes of ceramic units produced per month (refer to Section 4.2 of the MR);
- *Origin of Renewable Biomass* – Renewable origin of the biomass: all biomasses used at the project activity are renewable and from a legalized source;

- *Renewable biomass surplus* – Amount of renewable biomass available (refer to Sections 4.2 and 5.3 of the MR);
- *Leakage of non-renewable biomass* – Leakage resulted from the non-renewable biomass: 0 tCO_2e (as per Section 4.2 of the MR);
- $f_{NRB,y}$: Fraction of biomass (wood) used in the absence of the project activity in year: 94.36% (as per Section 4.2 of the MR).

The emission reduction spreadsheet is transparent, traceable and correct, with no manual transposition errors.

Baseline emissions (BE_y)

The baseline emissions are calculated as follows:

$$BE_y = B_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected\_fossil\_fuel}$$

Where:

BE_y: Baseline emissions during the year y;

B_y: Quantity of biomass that is substituted or displaced in tons;

$f_{NRB,y}$: Fraction of non-renewable biomass (wood) used in the absence of the project activity in year *y*;

$NCV_{biomass}$: Net calorific value of non-renewable biomass;

$EF_{projected\ fossil\ fuel}$: Emission factor for the projected fossil fuel consumption in the baseline.

So, **BE_y = 28,918 tCO_2e**.

Project emissions (PE_y)

No project emissions are considered for the project activity. Thus, **PE_y = 0 tCO_2e.**

Leakage emissions (LE_y)

No leakage is considered for this kind of project. Thus, **LE_y = 0 tCO_2e.**

Emission Reductions

Therefore, according to the applied methodology, as PE_y and LE_y = 0 tCO_2e, ER_y = BE_y.

Where:

ER_y: Emissions reductions during the year *y*;

BE_y: Baseline emissions during the year *y*;

PE_y: Project reductions in year *y*;

LE_y: Leakage reductions in year *y*.

Thus, $ER_y = BE_y$. So, **ER_y = 28,918 tCO_2e**.

4.4 Quality of Evidence to Determine GHG Emission Reductions and Removals

- records were submitted by the project proponent as evidences to determine emission reduction;
- the records, data and information provided were found valid for the current verification period. The documents were verified during site visit and when possible, were checked directly from its source;
- interviews were performed during site visit with involved personnel and PP's representatives;
- the GHG emission reduction calculations were check step by step with PP's representatives;
- the quality of evidences was found of adequate level by the verification team to ensure an accurate quantification of the emission reductions.

4.5 Non-Permanence Risk Analysis

Not applicable.

4.6 SOCIALCARBON Results

4.6.1 Social Resource

Indicator	Diversity				
Situation	Currently, there are 06 women and 01 illiterate employee working at the ceramic factory. Considering that the factory has 31 employees, these minority groups correspond around 23% of the workforce.				
There are currently no employees at the factory from minority groups and there are no	There are currently no employees from minority groups, but the factory has	Less than 15% of employees belong to a minority group.	Between 15 ≤ 30% of employees are from minority groups.	More than 30% of employees are from minority groups.	In addition to more than 30% of employees being minorities, the factory presents

plans to hire minorities.	made plans to hire minorities.				initiatives or combat forms of discrimination.

Score	4
Justification	It was possible to check during the interviews and site visit that some of the employees from excluded social groups are indeed working at the ceramic.
Evidence	Interviews performed with ceramic representatives and human resources documents.

Indicator	Community development
Situation	During the time period of analysis, the ceramic factory sponsored different initiatives in the community: Contributed financially to the APAE Institution - Associação de Pais e Amigos dos Excepcionais of Cristalândia municipality, with donations of R$ 100.00 per month. This institution provides support and offers care for children with special needs. Besides the financial contribution, the factory staff also went to some events organized by APAE, interacting with the children that are attended by the institution. APAE offers specialized educational support services for children and adolescents with intellectual disabilities between 4 and 17 years of age. The main goal is creating more favourable conditions for formal learning for these students. The factory donated R$ 50.00 per month to the Sociedade São Vicente de Paulo institution, which supports the SSVP Child Care Center in the Municipality of Taquarí. The factory also makes a monthly contribution, the tithe, to a local church. Mr. Edilberto, the owner of Reunidas Ceramic factory, states: "We are aware of the importance of a good relationship between the ceramic factory and the local community. Therefore, we seek to increase practices that benefit local development".

	In Cristalândia municipality, 33.5% of the people are below the poverty line. In this context, initiatives such as the ones carried out by the entrepreneur are important and contribute to the development of the region.				
The factory has no initiatives/ activities planned that benefit the local community.	The factory responds to occasional (not continuous) requests for assistance.	The factory supports community members or civil society organizations: - Regularly: one per month; OR - Significant: at least 10 different parties were benefited.	In addition to scenario 3, the factory lends out equipment, space and/or provides manpower for activities that benefit the local community.	The factory is formally involved in the development and implementation of social and/or environmental projects in partnership with public entities and/or civil society organizations.	In addition to scenario 5, the factory has formalized planning in order to maximize their contribution to local community development, through survey with the community, establishing new partnerships, etc.
Score	3				
Justification	It was verified by the performed interviews that the ceramic has acted in order to improve the community development. There is an intention to promote a "Labour Week" every year.				
Evidence	Pictures and interviews.				

Indicator	Employee satisfaction surveys
Situation	During the time period analysed, Reunidas had a suggestion box to evaluate workers' opinions, which was meant to be checked every week, emphasizing to employees the importance of using this tool as a way of improvement on working conditions and relations; however, the employees preferred to talk to the owner — Mr. Edilberto da Silva Rocha — directly. Furthermore, during the monthly CIPA meetings, employees are motivated to discuss improvements regarding health and safety at work.

Lack of a consultation system for employee feedback.	There are attempts to implement an employee consultation system but it is not being properly utilized. Example: There is a suggestion box, but employees do not use it.	The system for employee consultation is being utilized, but is limited to a suggestion box.	In addition to scenario 3, the factory has implemented or is currently implementing one or more suggestions made by employees.	The factory promotes periodic satisfaction surveys among employees. Example: monthly meetings, book for documenting information, etc.	In addition to scenario 5, the factory has stipulated targets and timelines for solutions to employee complains.
Score	5				
Justification	It was verified by the performed interviews and by the visit at the ceramic that there is an employee's consultation system.				
Evidence	Interviews and site visit.				

4.6.2 Human Resource

Indicator	Additional employee benefits				
Situation	In addition to monthly wages, the ceramic factory offers additional benefits to employees, such as: - during the analysed time period, breakfast was provided for all employees; - the factory organized End of Year celebrations; - employees have special payment conditions on building materials produced by the factory, they can pay for the products in instalments, when needed; - life insurance for all the employees, which is established by law; - during the monitored time period, uniforms and championships' inscription fees were paid by the factory for the workers' soccer team; - there is a soccer field at the factory where workers can play during lunchtime and outside normal working hours.				
The factory offers no	Some employees	All employees receive	All employees receive an	All employees receive more	All employees receive more

additional benefits to employees.	receive an additional benefit.	sporadic additional benefits, independent of frequency.	additional benefit monthly.	than one additional benefit monthly.	than one additional benefit monthly and there are also award programs based on merit.

Score	5
Justification	It was verified by the performed interviews with employees that the ceramic implemented additional benefits to all of them.
Evidence	Interviews and site visit.

Indicator	Health and safety practices
Situation	The company offers all the personal protective equipment necessary for the workers to carry out their activities safely. The use of PPE is monitored through an internal record of the PPE's use and return. The manager encourages PPE use with warning signs and campaigns. Also, the ceramic factory has a technician in health and safety practices at work who is responsible for giving lectures and guidance to the employees. The Company applies the Environmental Risk Prevention Program (PPRA), a program established by the Norma Regulamentadora - NR-9 of the Secretariat of Labour Health and Safety of the Minister of Labour and is in accordance with a Medical Regulation in Occupational Health Program – PCMSO, the NR-7, to promote Occupational Health. The company also has an Internal Commission for Accident Prevention (CIPA) and CIPA representatives provide orientation about accident prevention. The use of PPE is supervised by CIPA participants.

	Reunidas promoted the week of health and safety called "SIPAT – Internal week of work accident prevention", in which lectures regarding Health and Safety for the employees were offered. Collective protection equipment was installed in the ceramic factory, such as grids for pulleys, belts and guardrails. There is a fire fighting program implemented to avoid fire risks based on signs that establish a fire escape plan. The employees' ergonomic conditions are periodically evaluated by the company's health and safety team. The program aims to promote an active lifestyle, considered key to the health and quality workers' lives. It is based on providing information and encouragement, as well as creating opportunities for individuals to modify risky health behaviour, adopting more active and healthy lifestyles. Furthermore, the factory sponsored its own football team. During the time period monitored, uniforms were offered to the workers and the inscription fees to participate in championships were paid, aside from providing a soccer field for workers to play at the factory's grounds.				
There is no control of PPE distribution. None of the health and safety programs required by law are being implemented.	PPE distribution is being controlled OR there is at least one health and safety program required by law being implemented	The factory meets all legal requirements.	The factory meets all legal requirements and: (a) penalizes employees who do not properly use the PPE and/or (b) has signs encouraging the use of PPE in the factory and/or (c) The factory promotes lectures and events addressing issues related to health and safety in the workplace.	In addition to scenario 4, the factory contracts or has a technical professional or safety engineer on staff to ensure best practices in the company.	In addition to scenario 5, the factory develops complementary programs such as PPR, PPRPS and PCA; and/or The factory encourages physical activity or conducts activities for disease prevention.
Score	6				

Justification	It was verified by the performed interviews and by the presented pictures that the ceramic has several health and safety practices. In addition, there are PCMSO, PPRA and CIPA meeting.
Evidence	Pictures, interviews, CIPA meeting minutes, PCMSO and PPRA.

Indicator	Training and capacity building programs				
Situation	In the time period analysed, the ceramic factory offered lectures and training courses for all new employees of the production sector. Cerâmica Reunidas hired a qualified professional in the industry sector to minister building courses twice a year for its employees' working development.				
The company has not invested in lectures nor professional training courses for staff.	The factory organized occasional lectures.	Training courses were offered to individual employees, but not to all employees.	In addition to item 3, the individual employees who were contemplated by the training courses replicate the knowledge via lectures to other employees; and/or Regular lectures were offered to employees (at least two per semester).	In addition to scenario 4, the factory has an internal campaign to encourage employees to complete their high school education; and/or The factory promotes a literacy program for youth and adults.	In addition to scenario 5, the Ceramic factory has established a strategic plan regarding training and capacity building programs.
Score	3				
Justification	It was verified by the performed interviews that the ceramic provides training to new production employees. The ceramic intends to improve the building courses.				
Evidence	Pictures and interviews.				

4.6.3 Financial Resource

Indicator	Biomass supply				
Situation	Reunidas uses 100% rice husks as renewable biomass. More than 50% is provided by microenterprises and cooperatives.				
The factory has no control of the source and amount of biomass used; and/or the factory is using non-renewable fuel in the production process.	The factory only has partial control of the source and amount of biomass used.	The factory has total control of the source and amount of renewable biomass used, however 100% of the biomass comes from renewable wood.	The factory has total control of the source and amount of renewable biomass used and less than 50% of the fuel is coming from agro-industrial waste.	The factory has total control of the source and amount of renewable biomass used and more than 50% of the fuel is coming from agro-industrial waste.	The factory has total control of the source and amount of renewable biomass used and 100% of the fuel is coming from agro-industrial waste.
Score	6				
Justification	It was verified by the performed interviews that the ceramic has control of the suppliers and accounts for 100% of the used biomass. In addition, the ceramic has total control of its production in order to analyse the relationship of biomass and ceramic devices.				
Evidence	Records of purchase of biomasses and report of daily production of ceramic device.				

Indicator	Planning and control				
Situation	During the time period analysed, Reunidas had two carbon credit sales. These incomes are registered in an Excel spreadsheet used to control carbon credit sales. However, the planner does not keep track of the destination of these proceeds. The company intends to clear debts with the profits of a possible carbon credit sale in the future. Due to the economic crisis installed around 2016 in Brazil, the company acquired some debts regarding the ceramic's taxes and charges.				
The factory has no organized controls of the income received from	The factory has partial control of the income received from carbon credit	The factory has organized controls of the income received from	The factory has organized controls of the income received from	The factory has organized controls of the income received from	The factory has organized controls of the income received from

carbon credit sales nor the destination for proceeds.	sales and the destination for proceeds.	carbon credit sales, but control of the destination for proceeds is partial.	carbon credit sales, as well as of the destination for proceeds. However, the factory presents no future planning.	carbon credit sales, as well as of the destination for proceeds. However, the factory presents incomplete future planning.	carbon credit sales, as well as of the destination for proceeds. The factory presents satisfactory future planning (timeline, budget, responsible involved and benefits).
Score	3				
Justification	The ceramic has records of the income received from carbon credit sales and partial control over its destination. The ceramic intends to keep better records of the destination of the proceeds from carbon credit sales.				
Evidence	Interviews				

Indicator	Carbon credit investments				
Situation	The factory had two sales of carbon credits during the time period analysed, both on 2014. Mr. Edilberto assures that 100% of the sales profits was invested in the ceramic improvements.				
The income generated by carbon credit sales was not invested in the factory nor in the community, or there are no organized controls of the allocation of proceeds.	Less than 20% of the income generated by carbon credit sales was invested in the factory or in the community development.	Between 20 and 40% of the income generated by carbon credit sales was invested the factory or in the community development.	Between 40 and 60% of the income generated by carbon credit sales was invested the factory or in the community development.	Between 60 and 80% of the income generated by carbon credit sales was invested the factory or in the community development.	Between 80 and 100% of the income generated by carbon credit sales was invested the factory or in the community development.
Score	6				

Justification	The ceramic has invested 100% of the income generated by carbon credit sales was invested in the factory.
Evidence	Interviews

4.6.4 Natural Resource

Indicator	Environmental management				
Situation	Reunidas ceramic factory has an environmental policy which describes the goals and instruments to reduce negative environmental impacts. The factory carries out initiatives in sustainability such as: • bins for selective waste/garbage collecting in the ceramic factory; • use of a vacuum pump to reuse water in the production process, reducing its consumption. • the residues that are not burned are returned to the clay mixture and reused in the production process. The ceramic goods that are discarded are used to pave roads around the ceramic factory.				
There are no environmental management initiatives.	There are up to two specific initiatives to prevent/reduce the main environmental impacts caused by the ceramic factory.	There are more than two initiatives to prevent / reduce the main environmental impacts caused by ceramic factory.	In addition, the scenario 3, the factory is structuring an environmental management system in the company.	The factory has implemented a formal environmental management system.	The factory's environmental management system has been certified by a third party.
Score	3				
Justification	It was evidenced by the performed interviews with ceramic representatives and at the site visit that the ceramic has implemented some environmental initiatives.				
Evidence	Interviews and site visit.				

Indicator	Brazilian environmental legislation
Situation	Reunidas Ceramic uses water from a cistern and has DUIs (water grant) n° 024/14 and 025/14, which state an insignificant use of water by the ceramic. These grants were issued by Naturatins and are valid until February 21st, 2019. The factory has had two federal technical registries, one from December 12th, 2013 until March 20th, 2014; the other one from October 29th, 2014 until January 29th, 2015. Reunidas had Operating Licenses for all years, as follows: • N° 130/2013: valid for 2013; • DUAM 17423: valid for 2014; • DUAM 18899: valid for 2015; • DUAM 20210: valid for 2016; • N° 187/2017: valid for 2017. There is also Operation License n° 328/2012, for clay extraction, valid until January 27th, 2016; and its subsequent, n° 1918-2018, valid until April 18th, 2022; both emitted by Naturatins, the environmental organ in Tocantins. The Operation and Clay licenses are issued in the same document.

The factory does not possess any of the following: -operating license -license for clay extraction -water grant - federal technical registry	The factory only possesses two of the following: operating license -license for clay extraction -water grant - federal technical registry	The factory only possesses three of the following: -operating license -license for clay extraction -water grant - federal technical registry	The factory possesses all of the following: -operating license -license for clay extraction -water grant - federal technical registry However, they do not meet all the conditions established by them.	All licenses are up to date and all conditions established by them are being met.	In addition to the previous scenario, the factory collaborates with public administration and/or civil society organizations for cooperation with environmental projects.

Score	5
Justification	All licenses are up to date and all conformity conditions.
Evidence	Licenses

Indicator	Voluntary environmental initiatives				
Situation	The factory carries out sustainable initiatives such as: • some of the ashes generated by Reunidas' production processes are donated to small farmers in the region, the rest of the ashes is currently being stocked at the factory as the owner looks for a suitable destination; • a vacuum pump is implanted to reuse water in the production process, reducing its consumption, reinforcing the importance of saving water to its employees. These measures stimulate workers on thinking ways to give different destinations to residues other than discard, therefore they also reduce the factory's waste.				
The factory is not involved in voluntary environmental initiatives.	The factory has implemented only one internal environmental initiative. Example: Planting ten tree saplings on factory grounds.	The factory has implemented more than one internal initiative or is showing continuity for an existing Initiative. Example: Periodic planting of saplings on factory grounds.	The factory has implemented more than one initiative or ongoing initiative whose benefits extend to workers families.	In addition to the previous scenario, the benefits of the initiatives also extend to community members.	In addition to the previous scenario, the factory promotes voluntary environmental initiatives with civil society organizations and/or public administration.
Score	3				
Justification	It was evidenced by the performed interviews and site visit that the ceramic has implemented more than one environmental initiative. The ceramic intends to find an appropriate destination of the ashes.				

Evidence	Interviews and site visit.

4.6.5 Biodiversity/Technology Resource

Indicator	Technological advances to improve efficiency of the production process				
Situation	Some of the ceramic units are naturally dried in a covered location, while the other portion is dried with the heat from the kilns in the drying process with control of the temperature and humidity by thermocouples. As described in VCS PD version 05, during the validation process the production at Reunidas Ceramic factory encompassed seven "Round" kilns, which is a medium efficiency kiln. Reunidas Ceramic factory has a Round kiln to produce mainly structural bricks. There is also a semi-automatic feeding for the kilns. The factory controls the temperature of the kilns in the firing process using an electronic thermometer on the kiln. The monitoring system of the burning is automated, with digital archiving of the data and emission of daily reports. Furthermore, the factory monitors and records production at different stages of the production process through Dropbox software, an online tool to share monitoring data. The sanitary facilities are in good condition, since the entrepreneur invested in the construction of new bathrooms and new male changing rooms for the employees.				
The factory does not meet any of the characteristics described.	The factory meets one of the characteristics described.	The factory meets 2-3 of the characteristics described.	The factory meets 4 of the characteristics described.	The factory meets all of the characteristics described.	In addition to scenario 5, the factory has organized planning to improve general conditions of the production process.
Score	4				
Justification	It was evidenced by the performed interviews with ceramic representatives and during the site visit that the ceramic has several				

	equipment that enables an improvement in the efficiency of the production process.
Evidence	Interviews and site visit.

Indicator	Technological advances to improve the general conditions of the working environment				
Situation	Noise control was installed to comply with current legislation through measurements required by the PPRA. The factory also uses equipment to reduce employee exposure to heat from the kilns, such as PPE and burner machines. Furthermore, the ceramic factory has translucent tiles and skylights, and other equipment to maintain a well-lit working environment; as well as a project implemented in the production area to improve air circulation. The factory also uses signage according to the applicable norms.				
The factory does not meet any of the characteristics described.	The factory meets one of the characteristics described.	The factory meets 2-3 of the characteristics described.	The factory meets 4 of the characteristics described.	The factory meets all of the characteristics described.	In addition to scenario 5, the factory has organized planning to improve general conditions of the working environment.
Score	5				
Justification	It was evidenced by the performed interviews with ceramic employees and during the site visit that the ceramic has several features that improve the general conditions of the working environment.				
Evidence	Interviews and site visit.				

Indicator	Product quality

Situation	During this monitoring period, the ceramic factory analysed the quality of its products through a hired laboratory, which generates quality reports, so Reunidas could guarantee that it met all of the ABNT conformities.				
No efforts were made to analyse or improve product quality.	Samples of some products were evaluated by quality tests.	Samples of all products were evaluated by quality tests.	Some of the products have quality certification.	All products have quality certification.	In addition to scenario 5, the factory has an in-house quality lab.
Score	4				
Justification	The verification team had access to the entire operation process since the clay inspection until the final product to verify the tests performed during the process. In addition, it was evidenced by the performed interviews and site visit that the ceramic has quality certification of some items. The ceramic intends to perform more complete quality tests.				
Evidence	Interviews and site visit.				

4.6.6 Carbon Resource

Indicator	Stakeholder consultation				
Situation	Community members are free to make suggestions to the ceramic, and all comments are heeded. There have never been direct complaints.				
During the time period analysed, the factory did not conduct a stakeholder consultation.	During the time period analysed, the factory conducted an informal (no records) stakeholder consultation.	During the time period analysed, the factory conducted a formal (with records) stakeholder consultation; however negative comments were made regarding the project.	During the time period analysed, the factory conducted a formal (with records) stakeholder consultation, and no negative comments were made regarding the project.	As well as the previous scenario, there are continuous means of communication with stakeholders.	As well as the previous scenario, the next consultation is being planned together with stakeholders.

Score	2
Justification	It was evidenced by the performed interviews with the ceramic representatives that the ceramic has continuous, but informal interactions with stakeholders for complaints and suggestions.
Evidence	Interviews.

Indicator	Green marketing
Situation	The Ceramic factory is active on green marketing, promoting its commitment to the environment on its online platform, as seen on the website http://ceramicareunidas.com.br/ and also through posters and signs at the factory.

The factory does not have marketing strategies based on their environmental practices.	The factory markets their environmental practices only using one means of communication. Example: magazine advertisement.	The factory markets their environmental practices using more than one means of communication. Example: magazine advertisement and billboard.	The factory has an established green marketing strategy, but still has not seen positive results.	The factory has an established green marketing strategy and sees positive results.	As well as the previous scenario, the factory has plans to invest in Green marketing.

Score	3
Justification	It was evidenced by the performed interviews with the representatives that the ceramic has some green marketing strategies.
Evidence	Interviews and website.

Indicator	Project performance
Situation	The owner is satisfied with the carbon project; he believes that it is something positive and necessary, but still needs to be developed in Brazil and its culture because most people either don't know about it or don't understand it. Even though he has not had profit in a long time from it, he is pleased to promote the importance of

	reducing emissions and emitting carbon credits to his fellow ceramic entrepreneurs.				
The factory is very dissatisfied and threatens to abandon the carbon project.	The factory is dissatisfied, but does not plan to abandon the carbon project.	The factory is indifferent about the carbon project.	The factory believes the carbon project is something positive, but has complaints.	The factory is very satisfied with the carbon project.	In addition to the previous scenario, the factory considers the carbon project a competitive advantage for their business and encourages other factories to adopt similar practices.
Score	6				
Justification	It was evidenced by the performed interviews with the representative that the ceramic is very satisfied with the carbon project considers the carbon project a competitive advantage for their business.				
Evidence	Interviews.				

5 ANALYSIS OF SOCIALCARBON RESULTS

5.1 Current Performance

Resource	Critical	Satisfactory	Sustainable	Average Score	Performance
Social	0.0%	66.7%	33.3%	4.0	Satisfactory
Human	0.0%	33.3%	66.7%	4.7	Sustainable
Financial	0.0%	33.3%	66.7%	5.0	Sustainable
Natural	0.0%	66.7%	33.3%	3.7	Satisfactory

Biodiversity/Tech	0.0%	66.7%	33.3%	4.3	Sustainable
Carbon	33.3%	33.3%	33.3%	3.7	Satisfactory

5.2 Historical Performance

Social	Point Zero	Point One	Point Two	Point Three	Point Four
	2.5	2.8	4.0	3.3	4.0

Historic Analysis: Reunidas contributes to social diversity employing women, physically disabled, illiterates and senior employees. In addition, it contributed financially through various community initiatives, such as the APAE and Sociedade São Vicente de Paulo Institutions. The owner encouraged employees to voice their opinions through a suggestion box.

Human	Point Zero	Point One	Point Two	Point Three	Point Four
	2.8	2.5	2.8	4.3	4.7

Historic Analysis: the factory offered additional benefits to employees, such as breakfast, work parties, life insurance, donation of football uniforms, among others. The company also provides all personal protective equipment necessary for the workers to carry out their daily activities safely. The ceramic factory has a specialized professional in health and safety practices at work who is responsible of giving orientation to the employees.

Financial	Point Zero	Point One	Point Two	Point Three	Point Four
	6.0	4.5	4.6	3.0	5.0

Historic Analysis: Reunidas uses 100% rice husks as renewable biomass. More than 50% is provided by micro-businesses and cooperatives. The factory has an Excel planner to control incomes and outcomes related to the sale of carbon credits, but it did not have sales that would demand recording.

Natural	Point Zero	Point One	Point Two	Point Three	Point Four
	2.7	2.9	3.4	3.0	3.7

Historic Analysis: Reunidas has a commitment with the economic and environmental sustainability of the ceramic factory and region. It promotes conscious and rational management of the natural resources through measures

such as reusing the water of the production process, having bins for selective waste collecting, giving residues and discarded material other utilities, and others. All licenses are up to date and all conditions established by them are being met.

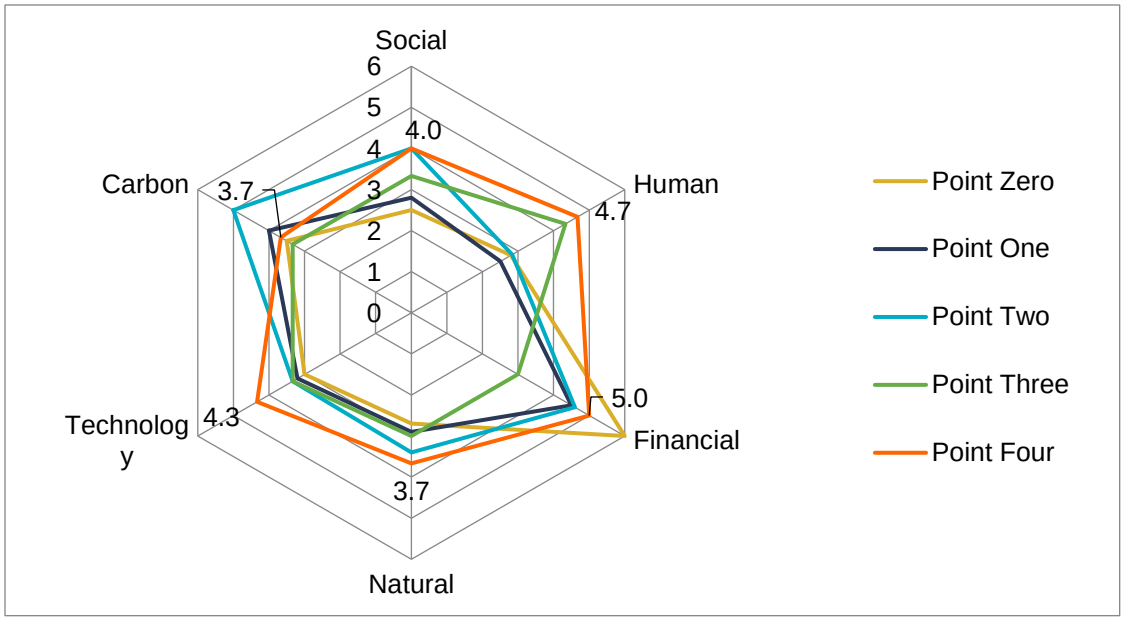
Biodiversity	Point Zero	Point One	Point Two	Point Three	Point Four
	3.0	3.2	3.3	3.3	4.3

Historic Analysis: production at Reunidas Ceramic utilized seven medium efficiency kilns. The factory possesses a dryer that recycles the heat from kilns. There is semi-automatic feeding of the kilns and monitoring of the burning system is automated, with digital archiving of the data and emission of daily reports. Furthermore, sanitary facilities are in good condition, noise control was performed to comply with legislation; there is equipment to maintain a well-lit working environment; and there is also equipment to reduce employees' exposure to heat. The ceramic factory implemented a project to improve air circulation in the production area and also uses signage according to the applicable norms.

Carbon	Point Zero	Point One	Point Two	Point Three	Point Four
	3.5	4.0	5.0	3.3	3.7

Historic Analysis: meetings take place at the factory as tool of informing and consulting workers, as well as direct conversations and put-up posters. The Ceramic factory promotes its commitment to the environment on its website amongst others. The owner believes that the carbon project is something positive and necessary, but thinks it still needs development and visibility in Brazil. He has not had profit from the project in the time period analysed but is pleased to promote the importance of reducing emissions and emitting carbon credits.

5.3 Performance Hexagon



6 VERIFICATION CONCLUSION

ESPL, contracted by Sustainable Carbon – Projetos Ambientais Ltda., has performed the independent verification of the emission reductions of the VCS project "Reunidas Ceramic Switching Non-Renewable Biomass Project", with VCS Project ID 65, for the monitoring period 01/08/2013 to 30/09/2017 (both days included).

Sustainable Carbon – Projetos Ambientais Ltda. is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

ESPL commenced the verification based on the baseline and monitoring methodology AMS-I.E – version 01, the monitoring plan contained in the VCS-PD – version 05 and draft Monitoring Report.

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 considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

The verification team confirms that:

- the project activity was found completely implemented as per the description given in the registered VCS-PD; and
- the actual operation conforms to the description in the VCS-PD.

Thus, the GHG emissions reductions reported for the project activity for the period from 01/08/2013 to 30/09/2017 (including both days) are fairly stated in the final version of the Monitoring Report. The GHG emission reductions were calculated

correctly based on the approved baseline and monitoring methodology AMS-I.E – version 01 and the monitoring plan contained in the VCS-PD.

Therefore, ESPL is able to certify that the emission reductions from the VCS project "Reunidas Ceramic Switching Non-Renewable Biomass Project".

In addition, as a result of the SOCIALCARBON verification, the verifier confirms that:

- the indicators and reports are in accordance with SOCIALCARBON Standard and "Brazilian Red Ceramic factories Indicators" – version 1.1;
- the project is being periodically monitored and Point Zero is being used as the baseline;
- there are perspectives of improvement and the efforts to seek for this improvement are being done;
- the report has been validated by an accredited entity, an on-site visit has been carried out and this verification report has been issued.

In addition, the verifier confirms that the indicators for "Brazilian Red Ceramic factories Indicators" – version 1.1 are accurate and the calculations are correct. The SOCIALCARBON template and SOCIALCARBON Guidelines were correctly used.

ESPL herewith confirms that the project is in line with all applicable criteria for the verification.

The characterization of the Point Four for the project as "SUSTAINABLE", as described in the referenced documents, is accurate.

Verification period: From 01-August-2013 to 30-September -2017.

SOCIALCARBON verification period: From 01-August-2013 to 30- September -2017.

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

Year	Baseline emissions or removals (tCO2e)	Project emissions or removals (tCO2e)	Leakage emissions (tCO2e)	Net GHG emission reductions or removals (tCO2e)
2013	3,449	0	0	3,449
2014	8,468	0	0	8,468
2015	7,322	0	0	7,322
2016	6,598	0	0	6,598
2017	3,081	0	0	3,081

Total	28,918	0	0	28,918

Approved by

Dr. Kaviraj Singh

Managing Director

Earthood Services Privated Limited

Date: 22-October-2020

Place: Gurgaon, Haryana

APPENDIX I: REFERENCES

No.	Title	References
1.	Methodology AMS-I.E – Switch from non-renewable biomass for thermal applications by the user	version 01
3.	Biomass Records of biomass purchase	2013 / 2014 / 2015 / 2016 / 2017
4.	Production Records of production by type of ceramic devices	2013 / 2014 / 2015 / 2016 / 2017
5.	License - Operation license #187/2017 – Municipality of Cristalândia - Environmental license # 1918-2018 – valid until 18/04/2022 – Naturatins	01/08/2017 18/04/2018
6.	MR – draft / revised	version 01 – 28/06/2019 version 02 – 01/10/2019
7.	MR – final	version 03 25/09/2020
8.	ER Spreadsheet – draft / revised	version 1
9.	ER Spreadsheet – final	version 2
10.	VCS-PD (Registered)	version 05 – 04/05/2009
11.	IPCC publications	www.ipcc-nggip.iges.or.jp
12.	UNFCCC	http://cdm.unfccc.int
13.	VCS	https://verra.org/

APPENDIX II: REFERENCES – SOCIALCARBON

No.	Title	References
1.	SOCIALCARBON Report – draft / revised	version 01 – 11/07/2019 version 02 – 01/10/2019

2.	SOCIALCARBON Report – final	version 03 25/09/2020
3.	Social Resource: - Human resources documents - Pictures	 2013 / 2014 / 2015 / 2016 / 2017
4.	Human Resource: - Pictures - CIPA meeting minutes - PCMSO (Program of Medical Control of Occupational Health) - PPRA (Program of Prevention of Environmental Risks)	 - - -
5.	Financial Resource: - Records of purchase of biomasses - Report of daily production of ceramic device - Receipts of payment of the VCUs	 2013 / 2014 / 2015 / 2016 / 2017 2013 / 2014 / 2015 / 2016 / 2017
6.	Natural Resource: - Pictures - Operation license #187/2017 – Municipality of Cristalândia - Environmental license (extraction of clay) # 1918-2018 – valid until 18/04/2022 – Naturatins - Operation license (Silviculture) # 258-2013 – Naturatins - Use of Water – DUI 025/14 – Naturatins	 01/08/2017 18/04/2018 16/01/2013 21/02/2014
7.	Carbon Resource: - Sales invoices - Ceramic website: http://ceramicareunidas.com.br/ - Pictures	 -
8.	Brazilian Red Ceramic factories Indicators	version 1.1
9.	Guidance for Completing SOCIALCARBON Reports	version 4.0
10.	SOCIALCARBON Standard	version 5.0
11.	SOCIALCARBON	http://www.socialcarbon.org/

APPENDIX III: ABBREVIATIONS

Abbreviations	Full texts
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CIPA	Internal Commission of Labour Accidents Prevention
CO_2e	Carbon dioxide equivalent
CL	Clarification Request
DOE	Designated Operational Entity
DOF	Document of Forest Origin
ER	Emission Reduction
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Greenhouse gas(es)
MR	Monitoring Report
PA	Project Activity
PCMSO	Program for Medical Control of Labour Health
PP	Project Participant
PPE	Personal Protection Equipment
PPRA	Program for Prevention of Environmental Risks
QA/QC	Quality Assurance / Quality Control
SC	SOCIALCARBON
SCR	SOCIALCARBON Report
SESI	Social Service of the Industry
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCS-PD	VCS – Project Description
VCU	Verified Carbon Unit
XLS	Emission Reduction Calculation Spread Sheet

APPENDIX IV: FINDINGS

CL from this verification

CL ID	01	Section no.	5.1	Date: 18/07/2019
Description of CL				
It is not clear the statement on Section 2.4.1 that all ashes are mixed in the clay as this was not the information given to the verification team during the site visit.				
Project participant response				**Date:** 08/08/2019
Some of the ashes that result from the burn of the renewable biomass are donated, the rest of the ashes is currently being stocked at the factory as the owner looks for a suitable destination. All information has been added and is available at Section 2.4.1 of the VCS-MR 4th Period, Version 02.				
DOE assessment				**Date:** 10/08/2020
The information that part of the ashes is donated and part is being kept in the ceramic until the most adequate destination is found is in accordance with the information received by the verification team during the site visit.				

CL ID	02	Section no.	4.2	Date: 18/07/2019
Description of CL				
Not all fixed parameters necessary for the project activity monitoring have been listed in Section 4.1.				
Project participant response				**Date:** 08/08/2019
All fixed parameters were included on this Monitoring Period as this Verification still takes the first crediting period into account, which is based on the 01st version of the AMS-I.E Methodology, as seen at Section 1.8.				
DOE assessment				**Date:** 10/08/2020
All fixed parameters necessary for the project activity monitoring are listed in Section 4.1.				

CL ID	03	Section no.	4.2	Date: 18/07/2019
Description of CL				
Not all monitored parameters necessary for the project activity monitoring have been listed in Section 4.2.				
Project participant response				**Date:** 08/08/2019
All monitored parameters were included on this Monitoring Period as this Verification still takes the first crediting period into account, which is based on the 01st version of the AMS-I.E Methodology, as seen at Section 1.8.				
DOE assessment				**Date:** 10/08/2020
All monitored parameters necessary for the project activity monitoring are listed in Section 4.2.				

CAR from this verification

CAR ID	01	Section no.	4.2	Date: 18/07/2019
Description of CAR				
Section 3.2: the values of parameter $Q_{renbiomass}$ of 12/01/2016 and 18/08/2017 are not consistent with evidences presented to the verification team.				
Project participant response				**Date:** 08/08/2019
Values of the $Q_{renbiomass}$ parameter were corrected at Section 3.2, as requested, and also updated at Reunidas VCS-MR Calculation spreadsheet.				
DOE assessment				**Date:** 10/08/2020
The values of parameter $Q_{renbiomass}$ are now consistent with evidences presented to the verification team.				

CAR ID	02	Section no.	4.2	Date: 18/07/2019
Description of CAR				
Section 3.2: the values of parameter PR_y of 15/11/2013; 30/11/2013; 12/07/2014; 25/07/2014; 21/01/2015; 31/01/2015 and 28/03/2016 are not consistent with evidences presented to the verification team.				
Project participant response				**Date:** 08/08/2019
Values of the PR_y parameter were corrected at Section 3.2, as requested, and also updated at Reunidas VCS-MR Calculation spreadsheet.				
DOE assessment				**Date:** 10/08/2020
The values of parameter PR_y are now consistent with evidences presented to the verification team.				

FAR from this verification

Not applicable

APPENDIX IV: FINDINGS SOCIALCARBON

CL from this verification

CL ID	01	Section no.	4.4.2	Date: 18/07/2019
Description of CL				
At Section 4.1 – indicator *Employee satisfaction survey*: it is not clear which employees' suggestion has been implemented by the ceramic.				
Project participant response				**Date:** 16/08/2019
Index has been corrected at Section 4.1, indicator 3 of the SCR - 4th Period, Version 02.				
DOE assessment				**Date:** 10/08/2020
The index of indicator *Employee satisfaction survey* is now in accordance with verified scenario.				

CL ID	02	Section no.	4.4.2	Date: 18/07/2019
Description of CL				
At Section 4.3 – indicator *Carbon credit investments*: it is not clear why it is stated that no carbon credits have been sold, as the ceramic has sold the carbon credits from previous verifications. In addition, the stated perspective is not in accordance with information received by the verification team during the site visit.				
Project participant response				**Date:** 16/08/2019
All information has been added and is available at Section 4.3, indicators 8 and 9 of the SCR - 4th Period, Version 02.				
DOE assessment				**Date:** 10/08/2020
The comments and perspectives of indicator *Carbon credit investments* are now in accordance with verified scenario.				

CL ID	03	Section no.	4.4.2	Date: 18/07/2019
Description of CL				
At Section 4.4 – indicator *Voluntary environmental initiatives*: the information that all ashes are used as fertilizer is not in accordance with the interviews performed by the verification team during the site visit.				
Project participant response				**Date:** 16/08/2019
All information has been added and is available at Section 4.4, indicator 12 of the SCR - 4th Period, Version 02.				
DOE assessment				**Date:** 10/08/2020
The information of indicator *Voluntary environmental initiatives* is now in accordance with verified scenario.				

CL ID	04	Section no.	4.4.2	Date: 18/07/2019
Description of CL				

At Section 4.6 – indicator *Stakeholder consultation*: the information presented at Comments refers to actions developed to the workers. Nevertheless, the indicator refers to actions to the stakeholders.	
Project participant response	**Date:** 16/08/2019
All information has been revised and is available at Section 4.6, indicator 16 of the SCR - 4th Period, Version 02.	
DOE assessment	**Date:** 10/08/2020
The comments of indicator *Stakeholder consultation* are now in accordance with verified scenario.	

CAR from this verification

CAR ID	03	**Section no.**	4.4.2	**Date:** 18/07/2019
Description of CAR				
At Section 4.2 – indicator *Additional employee benefits*: the index is not correct as it was revealed during the site visit that all employees received more than one additional benefit during the monitoring period.				
Project participant response				**Date:** 16/08/2019
Index has been corrected at Section 4.2, indicator 4 of the SCR - 4th Period, Version 02.				
DOE assessment				**Date:** 10/08/2020
The index of indicator *Additional employee benefits* is now in accordance with verified scenario.				

FAR from this verification

Not applicable

APPENDIX IV: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Competence Statement			
Name	Sergio Bonanno Cruz		
Country	Brazil		
Education	Post Graduate Diploma in Environment		
Experience	+25 Years		
Field	Environmental Law, CDM, Energy, Climate Change		
Approved Roles			
Team Leader	Yes		
Validator	Yes		
Verifier	Yes		
Methodology Expert	Yes (ACM0001, ACM0002, AM0026, ACM0006, AMS ID)		
Local expert	Brazil, Chile, Colombia		
Financial Expert	Yes		
Technical Reviewer	Yes		
TA Expert	Yes (TA 1.2, 13.1)		
Reviewed by	Shreya Garg	**Date**	29/08/2019
Approved by	Anshika Gupta	**Date**	29/08/2019

Competence Statement	
Name	Marcelo Sebben
Country	Brazil
Education	M.Sc. (Sustainable Energy System) B. Eng. (Chemical Engineering)
Experience	+12.5 Years
Field	Chemical process industry, CDM, Energy, Climate Change
Approved Roles	
Team Leader	Yes
Validator	Yes
Verifier	Yes
Methodology Expert	Yes (ACM0001, ACM0002, ACM0006, AM0065, AMS ID, AMS-I.E, AMS-I.C, AM0026, AMS-I.A, AMS-I.F, AMS-III.H, AMS-III.I. GS: Ecologically Sound Fuel Switch to Biomass with Reduced Energy Requirement, GS: Technologies and Practices to Displace Decentralized Thermal Energy Consumption)
Local expert	Brazil, Chile, Honduras, Colombia
Financial Expert	Yes
Technical Reviewer	Yes

TA Expert	Yes (TA 1.1, 1.2, 4.1, 5.1, 9.1, 13.1)		
Reviewed by	Shreya Garg	**Date**	01/03/2018
Approved by	Anshika Gupta	**Date**	01/03/2018