



VERIFICATION REPORT

CENOL AND TELHA FORTE CERAMICS
SWITCHING FUEL PROJECT



Report ID	25-035
Project title	Cenol and Telha Forte Ceramics Switching Fuel Project
Project ID	54
Verification period	01-January-2022 to 31- May-2025
Original date of issue	08-December-2025
Most recent date of issue	04-September-2026
Version	2.0
VCS Standard Version	5.0

Client	<i>Sustainable Carbon – Projetos Ambientais Ltda</i>
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Summary:

“Cenol and Telha Forte Ceramics Switching Fuel Project” involves fuel switching from native firewood from Amazon biome to sawdust and açai pits in the ceramic industry. Thus, GHG emission reduction is achieved.

The project activity includes Cenol and Telha Forte Ceramics, two ceramic companies based in São Miguel do Guamá, Pará, in northern Brazil. Both companies specialize in producing structural ceramics, such as bricks and tiles, primarily serving the regional market in Belém and the northeastern part of the state.

Cenol operates with 11 “Paulista” kilns and the Telha Forte Ceramics operates with 8 “Paulista” kilns (which corresponds to 30% of production) and 2 “Mobile” kilns (which corresponds to 70% of production). A finding was raised based on the actual technological operation infrastructure. Refer to FAR 01. After clarifications and corrections provided by the PP, FAR 01 was closed.

The project applies the CDM approved methodology AMS-IE – Switch from Non-Renewable Biomass for Thermal Applications by the User – version 07.0.

The start date of the project and the crediting period was 01/03/2007, which corresponds to the transition to renewable biomass fuel and the initiation of socio-environmental impact monitoring, also on this date the factories made the acquisition of their first mechanical burners.

Scope of verification

Sustainable Carbon – Projetos Ambientais Ltda has contracted Verifit to conduct the 3rd verification of the 2nd Crediting period of the project “Cenol and Telha Forte Ceramics Switching Fuel Project” for the period from 01/01/2022 to 31/05/2025 (both days included).

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

- the currently valid MR template was used and correctly filled up;
- the project activity has been implemented and operated as per the registered (revalidated) PD/^{04/} and that all physical features (technology and monitoring equipment/^{09/}) 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 VCU, verifiable, and in accordance with applicable requirements of the Verified Carbon Standard Version 4.7/^{01/};
- the actual monitoring systems and procedures have been compared with the monitoring systems and procedures described in the monitoring plan and approved methodology;

- the data are recorded and stored as per the monitoring methodology.

This project does not refer to a grouped project and therefore, there are no new instances to be included at the present monitoring period.

Conclusion

Verifit has performed the verification of the VCS project “Cenol and Telha Forte Ceramics Switching Fuel Project”, with VCS Project ID 54, for the monitoring period from 01/01/2022 to 31/05/2025 (both days included).

During the present VCS verification, 09 CLs and 04 CARs were raised and successfully closed. A FAR01 from the previous verification was also successfully closed.

Changes were also incorporated in this Verification Report as a result of the Project Review Report (PRR) issued on 21/07/2026 by Verra.

The verification team has confirmed the implementation of the project as per description in the VCS-PD/^{04/}, the monitoring plan of the PD and the application of the monitoring methodology (AMS-I.E v.7.0 /^{03/}). 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 **83,368 tCO₂e** in the above-mentioned monitoring period.

CONTENTS

1	INTRODUCTION	6
1.1	Objective	6
1.2	Scope and Criteria	6
1.3	Level of Assurance.....	6
1.4	Summary Description of the Project	8
2	VERIFICATION PROCESS	10
2.1	Method and Criteria	10
2.2	Document Review	11
2.3	Interviews.....	11
2.4	Site Visits	12
2.5	Resolution of Findings	14
2.6	Eligibility for Validation Activities	14
3	VALIDATION FINDINGS.....	14
3.1	Methodology Deviations	14
3.2	Project Description Deviations.....	14
3.3	New Project Activity Instances in Grouped Projects	16
3.4	Baseline Reassessment.....	16
4	VERIFICATION FINDINGS.....	16
4.1	Project Details	16
4.2	Safeguards and Stakeholder Engagement	19
4.3	Accuracy of Reduction and Removal Calculations	29
4.4	Quality of Evidence to Determine Reductions and Removals	47
4.5	Non-Permanence Risk Analysis	47
5	VERIFICATION OPINION.....	48
5.1	Verification Summary.....	48
5.2	Verification Conclusion	48
5.3	Ex-ante vs Ex-post ERR Comparison.....	50
	APPENDIX I: COMMERCIALLY SENSITIVE INFORMATION	52
	APPENDIX II: FINDINGS.....	53
	APPENDIX III: REFERENCES	83

APPENDIX IV: COMPETENCE.....	91
APPENDIX V: ABBREVIATIONS	93

1 INTRODUCTION

1.1 Objective

Sustainable Carbon Projetos Ambientais Ltda. has contracted Verifit to conduct the 3rd verification of the 2nd Crediting period of the project “Cenol and Telha Forte Ceramics Switching Fuel Project” for the period from 01/01/2022 to 31/05/2025 (both days included) according to the requirements of the Verified Carbon Standard Version 5.0^{/01/}.

The verification of the current monitoring period was initiated in mid-2025, at a time when the VCS Standard v4.7 was still applicable. Following the publication of the VCS Standard v5.0 by Verra on 16 December 2025, the applicable standard version was updated to VCS v5.0, which became effective immediately, replacing version v4.7. In accordance with Verra’s rules, only those updates identified as effective immediately were assessed for potential impacts on the Monitoring Report, while requirements subject to an explicit grace period were not implemented at this stage. The Project Proponent therefore applied VCS Standard v5.0 requirements that are effective immediately, and opted not to implement updates that are not required to be applied immediately, as their adoption is optional during the transition period and will become mandatory only as of 1 January 2027.

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 (revalidated) PD^{/04/} and that all physical features (technology, project 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 VCS Version 4.7 requirements^{/01/};
- the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology;
- the data are recorded and stored as per the monitoring methodology.

The verification of this monitoring period is based on the registered VCS-PD^{/04/}, MR^{/5//6/} and GHG emission reduction calculation spreadsheet^{/7//8/} and supporting documents (see Appendix III).

1.3 Level of Assurance

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

Moreover, the threshold for materiality with respect to the aggregate of errors, omissions and misrepresentations relative to the total reported GHG emission reductions and/or removals was below 5% from project scales, which is required by VCS Standard.

Sampling

A sampling was applied to crosscheck the parameters with more records (i.e., PR_y and $Q_{renbiomass}$), in accordance with their recording frequency.

Applying the following equation, the admissible sampling has been calculated according do Simple Random Sampling (<http://www.raosoft.com/samplesize.html/>):

$$\frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N} \right)}$$

Where:

n Number of elements to be sampled;

N Total number of elements in the population;

p Proportion: set to 0.5 based on the very conservative estimation that 50% of the values checked are found to be incorrect;

z Constant referring to the level of confidence (for this case 90%);

$Precision$
(e) Required precision (for this case 10%)

Telha Forte:

Thus, the number of elements that should be sampled was calculated as 290 for PR_y and 347 for $Q_{renbiomass}$.

Therefore, the verification team has verified randomly the data of 290 recordings of PR_y and 347 recordings of $Q_{renbiomass}$.

In addition, the aggregated values have been totally checked.

Monitored Parameter (Symbol / Description)	Reporting Frequency	Number of Discrete Data (Total)	Sample selected for verification	Type of error identified	Impact on ERs
PR_y	Daily	1,180 (100%)	290 (24.6%)	CAR 03	Yes
$Q_{renbiomass}$	Per purchase – 41 months	3,572 (100%)	41 months – 347 (10%)	No error identified	N/A

Cenol:

Thus, the number of elements that should be sampled was calculated as 338 for PR_y and 357 for $Q_{renbiomass}$.

Therefore, the verification team has verified randomly the data of 338 recordings of PR_y and 357 recordings of $Q_{renbiomass}$.

In addition, the aggregated values have been totally checked.

Monitored Parameter (Symbol / Description)	Reporting Frequency	Number of Discrete Data (Total)	Sample selected for verification	Type of error identified	Impact on ERs
PR_y	Daily	2,809 (100%)	338 (12%)	No error identified	N/A
$Q_{renbiomass}$	Per purchase – 41 months	5,017 (100%)	41 months – 357 (7%)	No error identified	N/A

After resolution of CAR 03, it can be concluded that the results found with the sampling applied are reliable and within the 95% confidence level and 5% precision.

1.4 Summary Description of the Project

“Cenol and Telha Forte Ceramics Switching Fuel Project” involves fuel switching from native firewood from Amazon biome to sawdust and açai pits in the ceramic industry. Thus, GHG emission reduction is achieved.

The project activity includes Cenol and Telha Forte Ceramics, two ceramic companies based in São Miguel do Guamã, Pará, in northern Brazil and their exactly locations are:

Cenol and Telha Forte Ceramics
Rodovia BR 010 – KM 1808 – Bairro Industrial
São Miguel do Guamá - Pará, Brazil
Postal Code: 68.660-000

Geodetic Coordinates (SAD69):

Cenol Ceramic: 1° 36' 19.8" S 47° 29' 19.2" W

Telha Forte Ceramic: 1° 36' 00.1" S 47° 29' 04.0" W

A finding was raised based on the coordinate information. Refer to CL 01. After clarifications and corrections provided by the PP, CL 01 was closed.

Both ceramics are specialized in producing structural ceramics, such as bricks and tiles, primarily serving the regional market in Belém and the northeastern part of the state.

Cenol Cerâmica do Norte Ltda and Cerâmica Telha Forte Ltda are the project owners as it could be observed in their Licenses^{/12/}. A finding was raised based on the licenses' information. Refer to CAR 01. After corrections provided by the PP, CAR 01 was closed.

The project is listed at VCS and can be accessed by the following link:

<https://registry.verra.org/app/projectDetail/VCS/54>

The project contributes to the following sustainable development actions in the host country:

- Use of clean technologies
- Development of new technologies within the country
- Use of renewable biomass

The sustainable development actions were assessed through these SDGs^{/16/}:

- SDG 2 – Zero Hunger
- SDG 3 – Good Health and Well-being
- SDG 7 – Affordable and Clean Energy
- SDG 8 – Decent Work and Economic Growth
- SDG 13 – Climate Action

Findings were raised based on the SDGs information. Refer to CLs 03, 09 and CAR 04. After clarifications and corrections provided by the PP, CLs 03, 09 and CAR 04 were closed.

Another important points about the project activity:

- Sectoral Scope: 1- Energy (renewable/non-renewable);
- Eligibility criteria for grouped projects: this project does not correspond to grouped project, thus this section is not applicable;

- Leakage management for AFOLU projects: this project is not an AFOLU project, thus, the leakage management is not applicable. The applied methodology does not make reference to AFOLU projects;
- Methodology: AMS-I.E – Switch from Non-Renewable Biomass for Thermal Applications by the User – version 07.0^{/03/};
- TOOL12 - Project and leakage emissions from transportation of freight, version 1.1;
- TOOL16 - Project and leakage emissions from biomass, version 04.0;
- TOOL30 - Calculation of the fraction of non-renewable biomass, version 01.0;

Refer to CL 02. After clarifications and corrections provided by the PP, CL 02 was closed.

- Commercially sensitive information: the commercial information has not been excluded from the documents made public by the PP;
- Project Start Date: the start date of the project and the crediting period was 01/03/2007, which corresponds to the transition to renewable biomass fuel and the initiation of socio-environmental impact monitoring, also in this date the factories' made the acquisition of their first mechanical burners.
- Crediting Period: 10 years
 - First Crediting Period – 01-November-2007 to 31-October-2017
 - Second Crediting Period – 01-November-2017 to 31-October-2027
- Project scale and Estimated GHG emission reductions: the PA is defined as a Project (< 300,000 tCO₂e/y).

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification process is conducted as per internal MSG and P-04 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);
- 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 evidence);
- 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/evidence reviewed is included as Appendix III.

2.3 Interviews

#	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation / Role			
1.	Rocha	Thais	Sustainable Carbon / Technical Analyst	29/07/2025	Project activity monitoring Excel calculations Social Carbon Monitoring parameters	David Costa / Camila Kamimura
2.	Costa	Mariana	Sustainable Carbon / Technical Analyst	29/07/2025	Project activity monitoring Excel calculations Social Carbon Monitoring parameters	David Costa / Camila Kamimura
3.	Silva	Ailton	Sustainable Carbon / Assistant	29/07/2025	Technical operation	David Costa / Camila Kamimura
4.	Valdir	Francisco	Telha Forte / Manager	29/07/2025	Technical operation	David Costa / Camila Kamimura
5.	Queiroz	Rosângela	Telha Forte / Occupational Safety Technique	29/07/2025	Occupational safety procedures	David Costa / Camila Kamimura
6.	Vasconcelos	Eline	Telha Forte / Human Resources Assistant	29/07/2025	Human Resources	David Costa / Camila Kamimura

7.	Moura	Camila	Cenol / Administrative Assistant	29/07/2025	Administrative procedures	David Costa / Camila Kamimura
8.	Antonio	Marcos	Telha Forte / Worker	29/07/2025	Operation	David Costa / Camila Kamimura
9.	Moraes	Francidalva	Stakeholder / Resident of São Miguel do Guamá	29/07/2025	SDG 2 - food baskets donation.	David Costa / Camila Kamimura
10.	Tavares	Luiz Eraudo	Stakeholder / Owner of Madeira Beira Rio	29/07/2025	Supply of raw materials	David Costa / Camila Kamimura

The objective of the above interviews was to understand the implementation and operation of the project activity, calculation of emission reductions as well as the monitoring plan, internal records and data management control for monitoring the parameters. Moreover, the interviews clarified the social and environmental monitoring carried out due to the project activity and their outcome, interaction of project activity with stakeholders and procedure of continuous communication with community.

The interviews carried out, as well as each topic addressed, are detailed in the table above.

The verification team concluded that the interviews carried out provided a good understanding of the project activity operation as well as their results in GHG emission reductions achieved and social/environmental monitoring.

2.4 Site Visits

Duration of on-site inspection: 29/07/2025	
Team	Area/Activity
David Costa Camila Kamimura	Opening Meeting: introduction, scope and objective of work, roles and responsibilities of audit team, resources required, and timetable of the onsite audit including venue for closing meeting and any concerns from PP.
	CENOL Ceramic: - Site visit to installations (kilns, facilities, technology); - Visit measurement equipment; - Project Activity (Technology, Location and Implementation); - Physical inspection of the site.
	- Checking original evidence (licenses, authorizations, technical information, etc.); - Socioeconomic and cultural programs;

	- Parameter fixed Ex-ante and Baseline emissions, Project emissions and Leakage calculation; - Monitoring plan (feasibility of monitoring arrangements described in VCS PD, QA/QC procedures, responsibility of implementation of monitoring plan, data recording & storage procedures); - Management and operational system: Documentation, allocation of responsibilities, data recording & archiving. Review of monitored data and compliance with monitoring procedures. Relevant documents in accordance with registered monitoring plan and applied monitoring methodology.
	Lunch time
	Telha Forte Ceramic: - Site visit to installations (kilns, facilities, technology); - Visit measurement equipment; - Project Activity (Technology, Location and Implementation); - Physical inspection of the site.
	- Checking original evidence (licenses, authorizations, technical information, etc.); - Socioeconomic and cultural programs; - Parameter fixed Ex-ante and Baseline emissions, Project emissions and Leakage calculation; - Monitoring plan (feasibility of monitoring arrangements described in VCS PD, QA/QC procedures, responsibility of implementation of monitoring plan, data recording & storage procedures); - Management and operational system: Documentation, allocation of responsibilities, data recording & archiving. Review of monitored data and compliance with monitoring procedures. Relevant documents in accordance with registered monitoring plan and applied monitoring methodology.
	- Interview (stakeholder 1): SDG 2 - food baskets donation.
	- Interview (stakeholder 2): Madeireira Beira Rio - Supply of biomass residues.
	Auditor time and resolution of pending issues.
	Compilation of the audit findings.
	Closing Meeting: Summary of the audit findings to the client and agreement on the issues raised and agreement on timelines.

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, 09 CLs and 04 CARs were raised and successfully closed.

The list of findings and their resolution are presented at Appendix II of this report.

Changes were also incorporated in this Verification Report as a result of the Project Review Report (PRR) issued on 21/07/2026 by Verra.

2.5.1 Forward Action Requests

A FAR01 from the previous verification was also analyzed and successfully closed.

No FAR has been raised during this verification process.

2.6 Eligibility for Validation Activities

Verifit holds the accreditation for verification of the sectoral scope.

3 VALIDATION FINDINGS

3.1 Methodology Deviations

No methodology deviations have been observed during this monitoring period or in any of the previous monitoring periods.

3.2 Project Description Deviations

1st monitoring period of 2nd Crediting period

In the registered (revalidated) PD/^{04/}, it has been informed that Cenol Ceramic operates with 13 Paulista Kilns. Nevertheless, during previous and current monitoring period, it could be observed that only 11 were operating. After findings resolution, it could be confirmed that only 11 Paulista Kilns were operative during the previous and current monitoring period. This change was already observed in the 1st monitoring period of 2nd Crediting period and therefore was already approved. It remains valid for this monitoring period. This change is appropriately described and justified in the MR. The project remains in compliance with VCS Program rules. The number of operative kilns does not affect the applicability of methodology, additionality or appropriateness of the baseline scenario and the project remains in compliance with applied methodology. Especially

regarding the additionality, the fact of less kilns are operative should not affect the additionality as any investment have actually been done and cannot be excluded. Moreover, in theory, less products will be produced, and the project will be less attractive. Therefore, this change does not affect negatively the additionality.

1st monitoring period of 2nd Crediting period

Moreover, during the 2nd verification of the 2nd Crediting period, from 01/01/2021 to 31/12/2021, it was observed that the reference for determining the sawdust surplus is no longer available. The biomass surplus was updated to reflect a higher forest residue generation rate (55% vs 22%), increasing total forest residues from 1,181,149 m³ to 2,952,873 m³. This update doesn't generate leakage emissions, as biomass availability (31%) exceeds 25% of regional consumption.

Regarding this change, it can be confirmed by the verification team that is appropriately described and justified in the MR. The project remains in compliance with VCS Program rules. The source of information (sawdust surplus) does not affect the applicability of methodology, additionality or appropriateness of the baseline scenario and the project remains in compliance with applied methodology.

Current monitoring period

- **Updating the geographic coordinates of the project**

The coordinates for Cenol and Telha Forte Ceramics were updated to reflect their accurate locations. The original coordinates included in the registered (revalidated) PD/^{04/} (Cenol: 1°32'12.06"S; 47°30'48.59"W, Telha Forte: 1°32'12.41"S; 47°30'48.65"W) were corrected to Cenol: 1°36'19.8"S; 47°29'19.2"W and Telha Forte: 1°36'00.1"S; 47°29'04.0"W. This update doesn't affect the project's methodology, additionality, or baseline scenario.

- **Update of the fNRB parameter**

The fraction of non-renewable biomass (fNRB) was reassessed and recalculated using State of Pará-specific data, replacing the Amazon biome-level approach applied in the registered VCS-PD. The revised approach was adopted because sufficiently detailed and verifiable data specific to Pará State (PA) were available for the parameters required under CDM Tool 30 (Version 1), while both the project activity and the relevant biomass supply area are located entirely within the State of Pará (PA). The revised approach therefore provides a more geographically representative assessment of the project conditions and remains consistent with the requirements of CDM Tool 30 (Version 1).

The deviation is limited to the estimation of the fNRB parameter used for baseline emissions. The project activity, baseline scenario and additionality demonstration remain unchanged, and the applicability of AMS-I.E (Version 7) and CDM Tool 30 (Version 1) is not affected.

The registered VCS-PD applied an fNRB of 79.54%, whereas the revised assessment resulted in annual values of 48.38% (2022), 58.79% (2023), 63.42% (2024), and 65.89%

(2025). A comparative assessment showed that the revised approach results in 83,368 tCO₂e of emission reductions for the current monitoring period, compared with 115,240 tCO₂e¹ that would have resulted from applying the registered VCS-PD fNRB value. Therefore, the revised fNRB results in 31,872 tCO₂e fewer emission reductions and does not lead to an overestimation of emission reductions.

The VVB considers that the revised fNRB approach is more geographically representative of the project conditions and conservative in its impact on emission reductions. The detailed assessment of the fNRB calculation, including the applicable equations, input parameters, data sources, assumptions and calculation steps, is presented in Section 5.1 (Baseline Emissions) of the revised Monitoring Report and the revised monitoring calculation spreadsheet.

3.3 New Project Activity Instances in Grouped Projects

Not applied. This project does not correspond to a grouped project.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No

4 VERIFICATION FINDINGS

4.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
Audit history	Sustainable Carbon – Projetos Ambientais Ltda has contracted Verifit to conduct the 3 rd verification of the 2 nd Crediting period of the project “Cenol and Telha Forte Ceramics Switching Fuel Project” for the period from 01/01/2022 to 31/05/2025 (both days included).

¹ Different from the ex-ante emissions values presented in Section 5.3 (108,822 tCO₂e), because the value in this Section 3.2 (115,240 tCO₂e) of this MR considers the actual production of ceramic products during the monitoring period rather than the projected production in the PD (Section 5.3 / ex-ante).

	The Notice of Verification Services (NOVS) was submitted to Verra on 03/07/2025. On-site visit took place on 29/07/2025. The verification report was issued on 24/02/2026. The PRR1 (1st Round) was issued by Verra on 21/07/2026. The revised verification report was issued on 04/09/2026.
Double counting and participation under other GHG programs	The project activity does not participate in any other GHG program. The programs checked can be found in the Appendix III below ^{/20/}.
No double claiming with emissions trading programs or binding emission limits	There is no double claiming with any other forms of environmental credit. The project activity has never sought, received, or is planning to receive credit from another GHG-related environmental credit system.
No double claiming with other forms of environmental credit	The project has not received nor sought any other form of environmental credit, and neither has it become eligible to do so since validation or previous verification. Interviews have been conducted with project proponents who confirmed this information.
Supply chain (scope 3) emissions double claiming	The project activity involves fuel switching from native firewood from Amazon biome to sawdust and açaí pits in the ceramic industry. Section 1.11.3 of the MR^{/6/} includes all 3 questions as per the guidance of the VCS Monitoring Report Template, v4.4, and marked “yes” in all 3 checkboxes, respectively. It has been confirmed that the project activity affects the emissions footprint of the ceramic products, as they result in a reduction of the greenhouse gas emissions associated with their manufacturing process. By replacing non-renewable fuel with renewable biomass, the project reduces the carbon intensity of the ceramic products (tiles and bricks). In addition, a public statement has been published on the Cenol and Telha Forte ceramic WhatsApp channel, which is informed as the main communication channel of the ceramic, informing that carbon credits may be issued for the greenhouse gas emission reductions associated with Cenol and Telha Forte’s ceramic products. Screenshots of the public statement made by Cenol and Telha Forte ceramic on their

	WhatsApp channel have been included as evidence in Appendix 3 of the MR^{6/}. The verification team has checked the WhatsApp (phone number: +55 91 99160-5009) of Cenol and Telha Forte Ceramic, which by assessing the contact details it is possible to see the same information as the evidence provided in Appendix 3 of the MR^{6/} is available, i.e. that carbon credits may be issued by the VCS Project 54 for the greenhouse gas emission reductions associated with Cenol and Telha Forte's ceramic products. Therefore, the verification team confirmed that this statement is publicly available. Refer to CAR 04. After clarifications and corrections provided by the PP, CAR 04 was closed.
Sustainable development contributions	The sustainable development actions were assessed through these SDGs^{16/} and the results below during this monitoring period have been checked by the verification team: - SDG 2 – Zero Hunger. SDG indicator: Number of basic food baskets donated. Project contributions in this monitoring period: 26 basic food baskets donated and R\$ 1,000.00 donation. Total contributions achieved: 781 basic food baskets were donated. - SDG 3 – Good Health and Well-being. SDG indicator: Number of vaccination campaigns carried out. Project contributions in this monitoring period: one vaccination campaign was carried out, with 75 meningococcal vaccines, 4 hepatitis B, 3 yellow fever, 68 tetanus, and 1 influenza vaccine were carried out. Total contributions achieved: two vaccination campaigns were carried out. - SDG 7 – Affordable and Clean Energy. SDG indicator: Amount of native wood replaced by project activity (hectares). Project contributions in this monitoring period: 606 hectares of native wood from deforestation displaced by project activity. Total contributions achieved: 3,117 hectares of native wood from deforestation displaced by project activity - SDG 8 – Decent Work and Economic Growth.

	SDG indicator: Number of structural improvements carried out to promote safety and well-being in the workplace. Project contributions in this monitoring period: 02 structural improvements were carried out promoting safety and well-being in the workplace. Total contributions achieved: 07 structural improvements were carried out. SDG 13 – Climate Action. SDG indicator: Tonnes of greenhouse gas emissions avoided. Project contributions in this monitoring period: 83,368 tonnes of greenhouse gas emissions avoided. Total contributions achieved: 616,999 tonnes of greenhouse gas emissions avoided.
	This information was correctly included in MR, section 1.12.
Additional information relevant to the project	- There is no source of leakage emissions as per section 5.3 of MR; - There is no commercially sensitive information.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	The stakeholders identified during validation remain unchanged. They include: - Ceramic sector syndicate; - Ceramic company employees; - São Miguel do Guamá Industries Syndicate (SICOM); - Local development agencies (SEBRAE and SENAI); - Environmental agencies; - Non-governmental organizations (NGOs); - Local ceramic companies; - The local community;

	This information was confirmed in the registered (revalidated) PD^{/04/} and during the on-site audit.
Legal or customary tenure/access rights	The project was implemented at two private ceramic industries, Cenol and Telha Forte, this information was observed in their Licenses^{/12/}. Stakeholders were informed about the project during validation, and no legal or customary rights to tenure or access were held by stakeholders at these locations. This information was confirmed in the registered (revalidated) PD^{/04/}.
Stakeholder diversity and changes over time	The project involves different stakeholders, including government agencies and local community residents, reflecting its broad social, economic, and cultural scope. The stakeholder composition has remained consistent since the revalidation. This information was confirmed in the registered (revalidated) PD^{/04/} and during the on-site audit.
Expected changes in well-being	During the project revalidation, risks and impacts were assessed and outlined in Section 5 ("Safeguards") of registered (revalidated) PD^{/04/}. The sole negative impact identified was ash generation from biomass burning, which is offset by its use as fertilizer. It was confirmed by the interviews in the on-site audit that the project positively impacts local communities through donations and social initiatives funded by carbon credits. Furthermore, switching to renewable biomass reduces deforestation, supporting biodiversity, ecosystem conservation, and climate change mitigation, ultimately enhancing local community well-being. The verification team confirms that this information is accurate, and it is duly described in the MR section 2.1.1.
Location of stakeholders	The project's stakeholders are mainly based in São Miguel do Guamá, including local ceramic companies, syndicates, and community members, as well as environmental agencies like SEMMA. SEBRAE operates statewide in Pará, and SENAI is based in Belém. The verification team confirms that this information is accurate, and it is duly described in the MR section 2.1.1.

Location of resources	The project is located on private property, and no stakeholders have ownership or customary access rights to the land or resources within the ceramic industries' boundaries. Verification team has confirmed this information during on-site inspection.
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4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Ongoing consultation	Cenol and Telha Forte have various communication channels: - Website - CSC - Telephone - E-mail - In-person meetings In addition, Sustainable Carbon can be contacted by email and telephone. Verification team has confirmed this information during on-site inspection. A finding was raised based on the information about Stakeholder Consultation and Ongoing Communication. There were no complaints identified during this monitoring period. Refer to CL 04a. After clarifications and corrections provided by the PP, CL 04a was closed.
Date(s) of stakeholder consultation	No formal stakeholder consultation has been performed for this third verification.
Communication of monitored results	The project maintains open communication regarding results, impacts, and relevant information through regularly prepared materials, presenting benefits, SDG outcomes, monitored parameters, and carbon credits issued. The verification team has reviewed evidence^{/23/} of communicated monitored results to stakeholders. During this monitoring period, no grievances or complaints were received by the PPs according to the MR, section 2.1.4. A finding was raised based on the information about the monitoring results. Refer to CL 04b. After clarifications and corrections provided by the PP, CL 04b was closed.

Consultation records	Records of stakeholder consultations are kept at the ceramic factory office. Verification team has confirmed this information during on-site inspection.
Stakeholder input	Stakeholders did not provide suggestions for changes to the project's design. Verification team has confirmed this information during the interviews in the on-site inspection.

4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	The project is implemented at two private ceramic industries, Cenol and Telha Forte, without issues on any property or relocating people. Stakeholders were consulted and informed about the project during the project validation. Since then, no conflicts have arisen. The verification team concludes that there are no records of claims or disputes by any party. This information was duly described in the MR section 2.1.3.
Outcome of FPIC discussion	FPIC is not carried out for this project activity. The company is located in private land and therefore no FPIC is needed.

4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Grievance received and steps taken to resolve the grievance including the outcomes of the resolution	During this monitoring period, no grievances or complaints were received by the PPs according to the MR, section 2.1.4. Verification team has confirmed this information during on-site inspection.
Grievance redress procedure	The PPs provide open channels through telephone, e-mail, or person talk for all members of community, employees, and stakeholders. It could be observed by interviews with the project proponents and by

report provided to the verification team that the grievance mechanism is currently in place and active.

4.2.5 Public Comments

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
According to the MR, section 2.1.5, there are no comments regarding the actual monitoring period.	Not applied.	No evidence was collected since there are no comments regarding the actual monitoring period. Constant communication is being maintained with communities related to general requests.

4.2.6 Risks to Local Stakeholders and the Environment

4.2.6.1 Management Experience

The management experience has been proved through information on all GHG Project activities that Sustainable Carbon is being conducted. They have more than 15 years of experience and a portfolio of 40+ verified projects in fuel-switch and renewable biomass, specializing in voluntary carbon markets and corporate sustainability. This information was confirmed in the MR section 2.2.1 and supported by Verifit's general knowledge of carbon market practices in Brazil and Latin America over the years.

4.2.6.2 Risk Assessment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Natural and human induced risks to stakeholders' wellbeing	No risk has been identified. Information considered reliable by verification team.
Risks to stakeholder participation	No risk has been identified. Information considered reliable by verification team.
Working conditions	The project activity poses no risk to working conditions, as replacing native wood with renewable biomass didn't alter existing labor conditions. Evidence of PPE delivery to employees was provided ^{17/} . This justification

	complies with Section 2.2.2 of the VCS Monitoring Report Template (v4.4) and is considered reasonable given the nature of the activity and existing workplace safety measures. A finding was raised based on the information about working conditions. Refer to CL 05a. After clarifications and corrections provided by the PP, CL 05a was closed.
Safety of women and girls	The MR provides justification for marking “No risk identified” regarding the safety of women and girls. It explains that the fuel-replacement activity does not create situations of exposure or vulnerability and highlights compliance with Brazil’s Labor Laws (CLT), which protect against discrimination and ensure rights for women and girls. Evidence of employees’ CLT-based employment/^{17/} and a Declaration of Human Rights Compliance/^{22/} were submitted, supporting the rationale. A finding was raised based on the information about safety of women and girls. Refer to CL 05b. After clarifications and corrections provided by the PP, CL 05b was closed.
Safety of minority and marginalized groups, including children	The MR provides justification for marking “No risk identified” regarding the safety of minority and marginalized groups. It explains that the fuel-replacement activity does not create situations of exposure or vulnerability and highlights compliance with Brazil’s Labor Laws (CLT), which protect against discrimination and ensure rights for vulnerable groups. Evidence of employees’ CLT-based employment/^{17/} and a Declaration of Human Rights Compliance/^{22/} were submitted, supporting the rationale. A finding was raised based on the information about safety of women and girls. Refer to CL 05c. After clarifications and corrections provided by the PP, CL 05c was closed.
Pollutants (air, noise, discharges to water, generation and release of hazardous materials and chemical pesticides and fertilizers)	The following risk was identified: ash generation from biomass burning. The mitigation is the use of the ash as fertilizer. This risk and its mitigation have been observed during the on-site inspection and also the evidence (photos, video) of the reuse of ashes as fertilizer was checked by the verification team, so the mitigation is considered accurate.

4.2.7 Respect for Human Rights and Equity

4.2.7.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination	It has been observed that no risk is identified. A Declaration of Human Rights Compliance/ ^{22/} that prevents any kind of discrimination was verified, and practices ensuring equal opportunities were observed and confirmed during the on-site inspection.
Sexual harassment	It has been observed that no risk is identified. A Declaration of Human Rights Compliance/ ^{22/} for prevention of any incidents of harassment is in place and has been duly checked during the on-site inspection.
Gender equity in labor and work	It has been observed that no risk is identified. During the on-site inspection, women were observed working in administrative and occupational safety roles.
Forced labor	It has been observed that no risk is identified. A Declaration of Human Rights Compliance/ ^{22/} for prevention of forced labor is in place and has been duly checked during the on-site inspection.
Child labor	It has been observed that no risk is identified. A Declaration of Human Rights Compliance/ ^{22/} for prevention of child labor is in place and has been duly checked during the on-site inspection.
Human trafficking	It has been observed that no risk is identified. A Declaration of Human Rights Compliance/ ^{22/} for prevention of human trafficking is in place and has been duly checked during the on-site inspection.

4.2.7.2 Human Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
It has been observed that no risk is identified.	During the on-site inspection, it was observed that there are no Indigenous Peoples, LCs or customary rights holders residing within the boundaries of the Cenol and Telha Forte ceramic factories in São Miguel do Guamá. The verification team also consulted the Interactive Map of FUNAI's Remote Monitoring Center, available at https://cmr.funai.gov.br/cmr/, and confirmed that there is no presence of Indigenous Peoples near the municipality of São Miguel

	do Guamá (where the project is implemented), in Pará State, northern Brazil. The National Foundation for Indigenous Peoples (FUNAI) is the Brazilian government agency responsible for protecting and promoting the rights of Indigenous Peoples. The Remote Monitoring Center (CMR) is a platform managed by FUNAI's General Coordination of Territorial Monitoring (CGMT), established by Decree No. 7,056 of December 28, 2009, and ratified by Decree No. 7,778 of July 27, 2012. Its function is to integrate geospatial information that supports territorial and indigenous policy planning. The database, continuously updated since 2015, provides data from satellite images with a spatial resolution of 30 meters, where each image unit represents 30 meters on the Earth's surface. A finding was raised based on the information of this section. Refer to CL 06. After clarifications and corrections provided by the PP, CL 06 was closed. Grievance mechanism has also been used as evidence for confirming this information.
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4.2.7.3 Indigenous Peoples and Cultural Heritage

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
It has been observed that no risk is identified.	During the on-site inspection, it was observed that there are no Indigenous Peoples, LCs or customary rights holders residing within the boundaries of the Cenol and Telha Forte ceramic factories in São Miguel do Guamá. The verification team also consulted the Interactive Map of FUNAI's Remote Monitoring Center, available at https://cmr.funai.gov.br/cmr/, and confirmed that there is no presence of Indigenous Peoples near the municipality of São Miguel do Guamá (where the project is implemented), in Pará State, northern Brazil. The National Foundation for Indigenous Peoples (FUNAI) is the Brazilian government agency responsible for protecting and promoting the rights of Indigenous Peoples. The Remote Monitoring Center (CMR) is a platform managed by FUNAI's General Coordination of Territorial Monitoring (CGMT), established by Decree No. 7,056 of

	December 28, 2009, and ratified by Decree No. 7,778 of July 27, 2012. Its function is to integrate geospatial information that supports territorial and indigenous policy planning. The database, continuously updated since 2015, provides data from satellite images with a spatial resolution of 30 meters, where each image unit represents 30 meters on the Earth's surface. A finding was raised based on the information of this section. Refer to CL 06. After clarifications and corrections provided by the PP, CL 06 was closed.
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4.2.7.4 Property Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
It has been observed that no risk is identified.	The project was implemented in private properties, this information was observed in their Licenses/ ^{12/} . Thus, the project does not encroach on private, stakeholder, or government property, and doesn't involve relocating people from their land. This information was also observed during the on-site inspection.

4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	The project was implemented in private properties, this information was observed in their Licenses/ ^{12/} . Thus, benefit sharing is not applicable to the project activity.
Benefit sharing during the monitoring period	The project was implemented in private properties, this information was observed in their Licenses/ ^{12/} . So Thus, benefit sharing is not applicable to the project activity.

4.2.8 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Impacts on biodiversity and ecosystems	No risk has been identified. The project activity corresponds to renewable biomass fuel use inside a manufacturing plant and therefore, this risk is not significant. PD ^{/04/} information and on-site inspection have been used as evidence.
Soil degradation and soil erosion	No risk has been identified. PD ^{/04/} information and on-site inspection have been used as evidence. In addition, it was verified by the verification team, the permission for clay extraction is under the renovation protocol SEI #48405.851239/2012-66 ^{/12/} , issued by National Mining Agency (ANM).
Water consumption and stress	No risk has been identified. PD ^{/04/} and on-site inspection have been used as evidence.

4.2.8.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species or habitat	No risk has been identified. The project activity corresponds to renewable biomass fuel use inside a manufacturing plant and therefore, this risk is not significant. PD ^{/04/} and on-site inspection have been used as evidence.
Areas needed for habitat connectivity	No risk has been identified. The project activity corresponds to renewable biomass fuel use inside a manufacturing plant and therefore, this risk is not significant. PD ^{/04/} and on-site inspection have been used as evidence.

	Evidence gathering activities, evidence checked, and assessment conclusion
Habitats for rare, threatened, and endangered species	No risk has been identified. The project activity corresponds to renewable biomass fuel use inside a manufacturing plant and therefore, this risk is not significant. In addition, the project isn't located in or near habitats of rare, threatened, or endangered species. PD ^{/04/} and on-site inspection have been used as evidence.
Areas for habitat connectivity	No risk has been identified. The project activity corresponds to renewable biomass fuel use inside a manufacturing plant and

therefore, this risk is not significant. In addition, the project isn't located in or near habitats of rare, threatened, or endangered species. PD^{/04/} and on-site inspection have been used as evidence.

4.2.8.2 Introduction of Species

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
Not applicable.	No risk has been identified. The project activity corresponds to renewable biomass fuel use inside a manufacturing plant and therefore, and therefore, this risk of introducing species is not significant as no species are introduced in the environment due to this project activity. PD ^{/04/} and on-site inspection have been used as evidence.

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
Not applicable	No introduction of species is part of the project activity as it refers to the use of renewable biomass fuel. PD ^{/04/} information and on-site inspection have been used as evidences.

Evidence gathering activities, evidence checked, and assessment conclusion	
Invasive species	Not applicable as no invasive species are being introduced due to the project activity.

4.2.8.3 Ecosystem conversion

Item	Evidence gathering activities and evidence checked
Ecosystem conversion	Not applicable to this project activity.

4.3 Accuracy of Reduction and Removal Calculations

The approved methodology AMS-I.E. – Switch from non-renewable biomass for thermal applications by the user – version 07.0^{/03/}. is applied to the project activity. GHG emission reduction is calculated as baseline emissions.

A finding was raised based on the project activity reduction calculations. Refer to CLs 07 and 08, CARs 02 and 03. After clarifications and corrections provided by the PP, CLs 07 and 08, CARs 02 and 03 were closed.

Project emissions are only applicable in case biomass residues are transported over a distance of more than 200 km. The demonstration has been carried out in the ER calculations spreadsheet and cross-checked through Google maps.

Leakage sources are accounted for this project type, in accordance with the applied methodology and “General guidance on leakage in biomass project activities”, in case the following is observed:

- if there is transference of equipment;
- in case there are production of renewable biomass;
- in case of competing use of biomass residues;
- the amount 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 registered VCS-PD^{04/}. In addition, all monitored data is traceable.

Fixed parameters (as per Section 4.1 of VCS-PD):

- $EF_{\text{projected fossil fuel}}$ – Emission factor for the substitution of non-renewable woody biomass by similar consumers: 81.6 tCO₂/TJ;
- ρ_{wood} – Specific gravity of non-renewable wood: 0.67 ton/m³;
- BF_y – Baseline consumption of non-renewable biomass per tons of ceramic units produced in year y:
 - Telha Forte Ceramic:
 - Paulista kiln: 0.62 ton of wood / tonnes of ceramic fired
 - Mobile Kiln: 0.46 ton of wood / tonnes of ceramic fired
 - Cenol Ceramic: For all Paulista Kilns: 0.64 ton of wood / tonnes of ceramic fired
- $EF_{\text{CO}_2, f}$ – Default CO₂ emission factor for freight transportation activity f : 129 gCO₂/t.km for heavy vehicles and 245 gCO₂/t.km for light vehicles

Monitored parameters:

- PR_y – Tonnes of ceramic devices (refer to Section 4.2 of the MR). The parameter is monitored by internal reports and cross-checked with records of the ceramic. The monitored values are (tonnes of ceramic devices):

Cenol

- 2022: 24,767.80
- 2023: 23,613.78
- 2024: 27,050.43

- 2025²: 12,179.42

Telha Forte:

- 2022: 39,129.34
- 2023: 37,079.54
- 2024: 36,370.55
- 2025³: 14,899.71

- $Q_{\text{renbiomass}}$ – Amount of renewable biomass utilized (refer to Section 4.2 of the MR). The parameter is monitored by internal reports and cross-checked with records of renewable biomass purchase receipts^{/10//17/}. The monitored values are (tonnes):

Cenol

Period	Sawdust	Açaí Pits
2022	6,581.98	795.55
2023	5,379.08	713.52
2024	7,125.04	1,465.09
2025 ⁴	2,737.51	567.73

Telha Forte

Period	Sawdust	Açaí Pits
2022	15,446.24	1,730.60
2023	21,934.96	2,799.56
2024	13,564.03	2,803.82
2025 ⁵	5,946.80	1,287.77

- Origin of Renewable Biomass – the project uses sawdust originating from licensed sawmills and that such biomass qualifies as renewable in accordance with Annex 18 of the 23rd CDM Executive Board meeting, which recognizes industrial and wood processing residues as renewable biomass. By assessing the Operating Licenses of the biomass suppliers, the verification team confirmed that the biomass suppliers comply with all applicable environmental laws and requirements. Otherwise, Operating Licenses would not have been issued by the competent governmental authority. These licenses of the biomass suppliers cover the relevant biomass supply period which of the biomass suppliers supplied renewable biomass for Cenol and Telha Forte and demonstrate that the biomass originates from legally authorized sources. Therefore, all biomasses used at the project activity are renewable and from a legalized source ^{/10//12//13//17//26/}. Refer to CAR 04. After clarifications and corrections provided by the PP, CAR 04 was closed.

² From 01/01/2025 to 31/05/2025

³ From 01/01/2025 to 31/05/2025

⁴ From 01/01/2025 to 31/05/2025

⁵ From 01/01/2025 to 31/05/2025

- Leakage of non-renewable biomass – Leakage resulted from the non-renewable biomass: 0 tCO₂e;
- $f_{NRB,y}$ – Fraction of woody biomass used in the absence of the project activity in year y that can be established as non-renewable biomass using survey methods or government data. The f_{NRB} was determined on a regional basis, corresponding to the State of Pará, where the project activity and the relevant biomass supply area are located, in accordance with CDM TOOL30 Version 01.0. The revised determination uses official statistics and publicly available databases and sources/^{18/} to estimate the relevant parameters H, RB and NRB. The VVB reviewed the data sources, assumptions and calculation procedures and confirmed that the revised approach is consistent with TOOL30 Version 01.0/^{02/}. The monitored annual f_{NRB} values are
 - 2022: 48.38%
 - 2023: 58.79%
 - 2024: 63.42%
 - 2025: 65.89%
- Renewable biomass surplus – Amount of renewable biomass available (refer to Sections 4.2 and 5.3 of the MR). The parameter is annually monitored per biomass. Nevertheless, the latest official data is from 2022 for Production of forest residues (PA), which accounts for 1,902,595.75 m³ for sawdust and 1,152,870 tons for açai pits. The monitored values for renewable biomass surplus are :

Period	Forest residues (m ³)	Açaí Pits (tonnes)
2022	412,711.18	607,527.12
2023	397,608.84	606,162.06
2024	416,537.30	605,116.67
2025	450,836.64	608,454.70

- $D_{f,m}$: Return trip distance (km) between the origin and destination of freight transportation activity f in monitoring period m (refer to Section 4.2 of the MR/) . The distances (in km) were calculated using an online source (i.e., Google Maps), utilizing the biomass origin and destination address/^{27/}:

Cenol

- 2022: 0
- 2023: 0
- 2024: 0
- 2025⁶: 0

The only renewable biomass provider of Cenol was Telha Forte which is located at 0.95 km of the factory, that is why is considered 0 above.

Telha Forte:

- 2022: 26,964
- 2023: 24,178
- 2024: 26,702

⁶ From 01/01/2025 to 31/05/2025

▪ 2025⁷: 15,028

- $FR_{f,m}$: Total mass of freight transported in freight transportation activity f in monitoring period m (refer to Section 4.2 of the MR) - Cenol and Telha Forte (in tonnes):

Year	Açaí pits (tonnes)	Sawdust (tonnes)	Total (tonnes)
2022	2,534.11	21,986.22	24,520.33
2023	3,737.03	27,163.43	30,900.46
2024	4,268.90	20,689.05	24,957.95
2025 ⁸	1,855.43	8,684.30	10,539.73

- $NCV_{biomass}$: Net Calorific Value of non-renewable woody biomass that is substituted – 0.015 TJ/tonne of wood (as per applied methodology, the NCV from wood is a default value)

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

The parameters have been monitored in a correct and conservative way and in accordance with monitoring methodology and registered monitoring plan.

The registered monitoring plan has been properly implemented and followed by the project participants. The procedures to gather all data, analysing, recording, reporting and compilation have been performed by personnel trained for the tasks (in Cenol and Telha Forte Ceramics and Sustainable Carbon).

Quality assurance and quality control procedures are in place.

Baseline emissions (BE_y)

The baseline emissions were calculated in accordance with AMS-I.E – Switch from Non-Renewable Biomass for Thermal Applications by the User, Version 07.0.

Therefore, 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 woody biomass that is substituted or displaced;

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

⁷ From 01/01/2025 to 31/05/2025

⁸ From 01/01/2025 to 31/05/2025

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

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

For the monitoring period, NCV_{biomass} is maintained at 0.015 TJ/t of wood and EF_{projected fossil fuel} at 81.60 tCO₂/TJ (default values, as per applied methodology).

The calculation of f_{NRB,y} has been determined as follows as per TOOL30 v.1 (applied version in the VCS-PD), considering data and information from the State of Pará (PA).

The fraction of woody biomass used in the absence of the project activity in year y is using the equation below:

$$f_{NRB} = \frac{NRB}{NRB + RB}$$

Where:

- f_{NRB} Fraction of non-renewable biomass (fraction or %)
- NRB Non-renewable biomass (t/yr)
- RB Demonstrably renewable biomass (t/yr)

The annual values used for estimation of parameter f_{NRB,y} are:

Year	NRB (t/yr)	RB (t/yr)	f _{NRB,y} (%)
2022	2,293,784	2,446,971	48.38
2023	2,804,842	1,966,267	58.79
2024	2,828,679	1,631,433	63.42
2025	2,938,900	1,521,212	65.89

The parameter NRB has been calculated as follows

$$NRB = H - RB$$

Where:

- H - Total annual consumption of wood in the absence of the project activity in the country/region/project area. The value of this parameter is duly available in public sources^{18-1/}
- RB - Demonstrably renewable biomass (t/yr)

The VVB verified the determination of H using paragraph 12, option (a) Official statistics or reports or peer-reviewed literature, of CDM TOOL30 Version 01.0. The VVB confirmed that H is estimated using official forest extraction statistics published by the Brazilian Institute of Geography and Statistics (IBGE) for the State of Pará (PA), covering charcoal, fuelwood and timber, available at: <https://cidades.ibge.gov.br/brasil/pa/pesquisa/16/12705>. The VVB verified the underlying IBGE data and the corresponding values used in the calculation. The inclusion of these categories is consistent with the approach described in CDM TOOL30 v01 for estimating total woody biomass consumption within the selected region, rather than limiting H to the specific biomass

type used as fuel by the project baseline. Accordingly, although timber is not primarily used for energy generation in the project baseline, its inclusion is appropriate because it represents a component of total regional woody biomass consumption.

The VVB confirmed that a density factor is not applied to charcoal, since the charcoal data reported by IBGE are already expressed in tonnes. For fuelwood and timber, which are reported by IBGE in cubic metres, the revised calculation applies a wood density factor of 0.632 t/m³ to convert the reported volumes into tonnes.

The VVB assessed the justification for applying the same density factor to fuelwood and timber and confirmed that both categories are reported as woody biomass volumes and require conversion from volume to mass. The selected factor represents oven-dry wood density and is based on the Global Wood Density Database (Zanne et al., 2009), available at: <https://datadryad.org/dataset/doi:10.5061/dryad.234>. The MR identifies a dataset comprising 4,191 tropical South American tree species, from which the selected average density was derived. The VVB reviewed the cited source and confirmed the value of 0.632 t/m³ used in the calculation.

Charcoal is converted to woody biomass equivalent using the default conversion factor of 6 kg of firewood per kg of charcoal, as specified in paragraph 16 of CDM TOOL30 v01. The VVB verified that this factor has been incorporated into the revised calculation and applied consistently to the charcoal quantities used in the estimation of H. The annual values used for estimation of parameter H are:

Year	IBGE Data			Converted Value			H (t)
	Charcoal (t)	Fuelwood (m ³)	Timber (m ³)	Charcoal (t)	Fuelwood (t)	Timber (t)	
2022	139,485	1,427,196	4,749,774	836,910	901,988	3,001,857	4,740,755
2023	129,647	1,332,537	4,985,861	777,882	842,163	3,151,064	4,771,110
2024	134,444	1,314,718	4,466,053	806,664	830,902	2,822,545	4,460,111
2025*	134,444	1,314,718	4,466,053	806,664	830,902	2,822,545	4,460,111

(*) For 2025, the 2024 official dataset was used as a proxy because official 2025 data were not available.

The parameter RB has been calculated as follows:

$$RB = \sum (MAI_{forest,i} \times (F_{forest,i} - P_{forest,i})) + \sum (MAI_{other,i} \times (F_{other,i} - P_{other,i}))$$

where ^{/18/}

- MAI_{forest,i}: Mean Annual Increment of woody biomass growth per hectare in subcategory i of forest areas (t/ha/yr)
- MAI_{other,i}: Mean Annual Increment of woody biomass growth per hectare in subcategory i of other wooded land areas (t/ha/yr)
- F_{forest,i}: Extent of forest in sub-category i (ha)
- F_{other,i}: Extent of other wooded land in sub-category i (ha)

- $P_{forest,i}$: Extent of non-accessible area (e.g. protected area where extraction of wood is prohibited, geographically remote area) within forest areas (ha)
- P_{other} : Extent of non-accessible area (e.g. protected area where extraction of wood is prohibited, geographically remote area) within other wooded land areas (ha)

The VVB verified that $MAI_{forest,i}$ is based on the mean annual increment of above-ground biomass carbon for the Amazon biome reported in Brazil's Third National Communication to the UNFCCC, Volume III, Table A1.18, p. 293, available at: <https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/cgcl/clima/arquivos/destaques/terceira-comunicacao-nacional-do-brasil-a-unfccc-volume-iii.pdf>. The source reports an increment of 0.34 tC/ha/yr. The MR applies a carbon fraction of 47%, also reported in the same source, to convert the value to biomass units:

$$MAI_{forest,i} = 0.34 \text{ tC/ha/yr} \div 0.47 = 0.72 \text{ t/ha/yr}$$

The VVB verified the source, the carbon fraction and the conversion and confirmed that $MAI_{forest,i} = 0.72 \text{ t/ha/yr}$ is applied for all monitoring years. The use of above-ground biomass increment was considered conservative because below-ground biomass is not included in the MAI value.

$F_{forest,i}$ is determined annually using MapBiomass land-cover data, available at: <https://plataforma.brasil.mapbiomas.org/>. The forest and woody vegetation classes included are Forest Formation, Arboreal Restinga, Flooded Forest, Mangrove and Savanna Formation. The VVB reviewed the classification and confirmed that these classes represent the woody vegetation considered relevant for biomass availability within the selected boundary. The resulting annual $F_{forest,i}$ values are: 91,512,334 ha (2022), 91,171,086 ha (2023), 90,845,583 ha (2024 and 2025). For 2025, the 2024 official dataset was used as a proxy because official 2025 data were not available.

The VVB further confirmed that $F_{other,i}$ is set to zero. The MR explains that all woody vegetation classes relevant to woody biomass availability are already represented in $F_{forest,i}$. Therefore, no additional areas qualify as "other wooded land" for separate accounting. Inclusion of such areas under $F_{other,i}$ would result in double-counting. Accordingly, $MAI_{other,i}$ and $P_{other,i}$ are not applicable because no separate "other wooded land" areas are identified in the calculation.

The VVB verified the determination of $P_{forest,i}$ using publicly available datasets identifying non-accessible forest areas within Pará State (PA). The categories considered include Conservation Units (available at: <https://uc.socioambiental.org/mapa>), Federal and State Not Designated Public Forests (several links, refer to reference 18), Indigenous Lands (available at: <https://terrasindigenas.org.br/pt-br/brasil>), Quilombola Lands (available at: <https://amazoniaquilombola.org.br/#painel>) and Permanent Preservation Areas (APPs) (available at: <https://painel.car.gov.br/car/sense/app/724964d6-be54-40cd-a892-ef9bc03fa411/sheet/d0334df5-8263-4fde-943a-7ef9aaad4fa3/state/analysis>). The VVB reviewed the applicable datasets and confirmed that the categories are maintained under separate administrative systems and official registries. No evidence of overlap or double-counting between the categories was identified. The MR considers these areas non-accessible because they are subject to legal protection, territorial rights or governmental control, consistent with the definition of non-accessible forest areas under CDM TOOL30 Version 01.0. Annual data were used where available. Where annual data were unavailable, the most recent applicable dataset was used as documented in the MR. For Not Designated Public Forests, for example, the 2022 value to both 2022 and 2023, and the 2024 and 2025 values to their respective years. The Annual values used for estimation of parameter $P_{forest,i}$ are:

Year	Conservation Units (ha)	Not Designated Public Forests (ha)	Indigenous Lands (ha)	Quilombola Lands (ha)	Permanent Preservation Areas (APPs)
2022	42,128,527	7,764,873	35,314,005	1,286,124	1,636,227
2023	42,128,527	7,764,873	35,314,005	1,286,124	1,959,481
2024	42,128,527	7,482,721	35,314,005	1,286,124	2,378,989
2025	42,128,527	7,161,927	35,314,005	1,286,124	2,852,148

The resulting annual $P_{forest,i}$ values are: 88,129,757 ha (2022), 88,453,011 ha (2023), 88,590,367 ha (2024) and 88,742,732 ha (2025).

Therefore, the annual values used for estimation of parameter RB are:

Year	$MAI_{forest,i}$ (t/ha/yr)	$F_{forest,i}$ (ha)	$P_{forest,i}$ (ha)
2022	0.72	91,512,334	88,129,757
2023	0.72	91,171,086	88,453,011
2024	0.72	90,845,583	88,590,367
2025	0.72	90,845,583*	88,742,732

(*) For 2025, the 2024 official dataset was used as a proxy because official 2025 data were not available.

Thus, the calculation of the $f_{NRB,y}$ has been carried out in accordance with applicable version of TOOL30, as required by the registered VCS-PD. The calculation can be observed in the ER calculations tab $f_{NRB,y}$.

B_y is the quantity of woody biomass that is substituted or displaced in tons, and it is calculated from the thermal energy generated in the project activity (option d from paragraph 13 of the methodology AMS-I.E, Version 07.0).

$$B_y = \frac{HG_{p,y}}{\eta_{old} \times NCV_{biomass}}$$

Where:

$HG_{p,y}$: Quantity of thermal energy generated by the renewable energy in the project in year y;

η_{old} : Efficiency of the system being replaced

$HG_{p,y}$ is calculated as follows:

$$HG_{p,y} = SGE \times PR_y$$

Where:

SGE: Specific energy, which has to be generated in the process to produce a certain amount of ceramic units;

PR_y: Amount of product produced in year y

η_{old} is calculated as follows:

$$\eta_{old} = \frac{SGE}{SFE}$$

Where:

SFE: Specific fuel energy needed for the process to produce a certain amount of ceramic units

And SFE is calculated as follows:

$$SFE = BF_y \times NCV_{biomass}$$

Where:

BF_y: Consumption of non-renewable biomass per ton of ceramic units fired in year y

Therefore, using the equations above:

$$B_y = PR_y \times BF_y$$

The VVB confirmed that B_y is determined using option (d) from paragraph 13 of AMS-I.E Version 07.0, based on the thermal energy generated by the project activity. The MR presents the applicable equations for HGP_y, SGE, SFE and BF_y and derives the quantity of biomass substituted or displaced (B_y).

The VVB verified that PR_y is based on the monitored production of ceramic units and that the production data are aggregated monthly and annually.

Three BF_y values are applied: 0.64 t wood/t ceramic units fired for Cenol; 0.62 t wood/t ceramic units fired for Paulista Kiln (Telha Forte) and 0.46 t wood/t ceramic units fired for Mobile Kiln (Telha Forte).

Therefore, the totals PR_y, B_y and BE_y values per year for Cenol and Telha Forte ceramics in this Monitoring Period, from 01/01/2022 to 31/05/2025, are:

Period	PR _y Production (tonnes of ceramic units)	B _y (tonnes)	BE _y (tCO ₂ e)
Total 2022	63,897	35,729	21,147
Total 2023	60,693	33,949	24,418
Total 2024	63,421	35,789	27,772
Total 2025*	27,079	15,364	12,388
Total in the monitoring period	215,091	120,831	85,725

(*) From 01/01/2025 to 31/05/2025.

Cenol and Telha Forte

So, BE_y (tCO₂e) =

- 2022: 21,147
 - 2023: 24,418
 - 2024: 27,772
 - 2025⁹: 12,388
- Total: 85,725**

Project emissions (PE_y)

Project emissions due to transportation are applied as follows:

$$PE_{TR,m} = \sum_f D_{f,m} \cdot FR_{f,m} \cdot EF_{CO_2,f} \cdot 10^{-6}$$

Where:

- PE_{TR,m} = Project emissions from road transportation of freight monitoring period *m* (t CO₂)
- D_{f,m} = Return trip road distance between the origin and destination of freight transportation activity *f* in monitoring period *m* (km)
- FR_{f,m} = Total mass of freight transported in freight transportation activity *f* in monitoring period *m* (t)
- EF_{CO₂,f} = Default CO₂ emission factor for freight transportation activity *f* (g CO₂ / t km)
- f* = Freight transportation activities conducted in the project activity in monitoring period *m*

The D_{f,m} (km) values of the distance for all suppliers associated with Cenol and Telha Norte Ceramics (2022–2025) are:

Provider	Origin	Destiny	D _{f,m} - Return trip distance (in kilometers)
C.TELHA FORTE	Cerâmica Telha Forte - São Miguel do Guamá, PA, 68660-000	Cenol Ceramic Industry: Rode BR 010, KM 1810, S/N	2
ALLEF	São Miguel do Guamá, PA	Cerâmica Telha Forte - São Miguel do Guamá, PA, 68660-000	5
ADAILSON	Tomé-Açu, PA		292
BAIANO	São Miguel do Guamá, PA		5
BIRA	Ulianópolis, PA		492
BRINQUEDO	Tomé-Açu, PA		292

⁹ From 01/01/2025 to 31/05/2025

CARLINHO	São Miguel do Guamá, PA	5
CLEBER	São Miguel do Guamá, PA	5
DANILO	São Miguel do Guamá, PA	5
EDER MONTEIRO	Benevides, PA	226
EDINALDO	São Miguel do Guamá, PA	5
FELIPE	São Miguel do Guamá, PA	5
FELIPE DA CONQUISTA	Conquista, Tomé-Açu PA	318
FOGUINHO	Paragominas, PA	326
GAZOLA	Ananindeua - PA	254
GLAILSON	São Miguel do Guamá, PA	5
HIGOR	Vila Caisal, Santa Bárbara do Pará, PA	256
HR MADEIRAS	Moju, PA	462
IDEAL MAD.	Icoaraci, PA	298
IPIXUNA	Ipixuna do Pará, PA	222
JC MADEIRAS	Nova Esperança do Piria, PA	300
JOSE ALEX	Nova Esperança do Piria, PA	300
JOSE CARLOS	Paragominas, PA	326
JOSE MARIA	São Miguel do Guamá, PA	5
KARATE	Tome-Açu, PA	292
LENILSON	São Miguel do Guamá, PA	5
M.GREENEX	Santa Bárbara do Pará, PA	256
M.INDUFEX	Santa Bárbara do Pará, PA	256
M.ITAPEMIRIN	Icoaraci, PA	298
M.MÃE DO RIO	Benfica, Benevides, PA	242
M.MARITUBA	Marituba, PA	246
M.ST ANTONIO	São Miguel do Guamá, PA	5
MAD.BAIANO	São Miguel do Guamá, PA	5
MAD.BELÉM	Belém, PA	290
MAD.BRASIL	Belém, PA	290
MAD.CCM	Tomé-Açu, PA	292
MAD.DITORA	Icoaraci, PA	298
MAD.DUNORTE	Paragominas, PA	326
MAD EVERRESTE	Santa Bárbara do Pará, PA	256
MAD ITAMAL	Icoaraci, PA	298
MAD.LAMAPA	Icoaraci, PA	298
MAD LUANDA	Benevides, PA	226
MAD.M2000	Icoaraci, PA	298
MAD MADEARTE	Vila Distrito,Ananindeua,PA	258

MAD.MOJU	Moju, PA	462
MAD MURININ	Murinín, Belém, PA	250
MAD.PIRIA	Nova Esperança do Piria, PA	300
MAD.TOFOLI	Santa Bárbara do Pará, PA	256
MAD.WXL	Benevides, PA	226
MADEREIRA	Benevides, PA	226
MARACAPUERA	Outeiro, Belém, PA	312
MARINALDO	Belém, PA	290
MUNDAO	São Miguel do Guamá, PA	5
N.ESPERANÇA	Nova Esperança do Piria, PA	300
NILTON	São Miguel do Guamá, PA	5
PARAGOMINA	Paragominas, PA	326
PAULO	São Miguel do Guamá, PA	5
PEDRO	Icoaraci, PA	298
RAIMUNDO	São Miguel do Guamá, PA	5
RENATO JUNIOR	São Miguel do Guamá, PA	5
RUGGERIO	Vila Caisal, Santa Bárbara do Pará, PA	256
S. 7.0 MADEIRAS	Vila Murinín,Benevides, PA	250
S.ALAGADOS	Santa Bárbara do Pará, PA	256
S.ALVARENGA	Icoaraci, PA	298
S.AMAZONGREN	Marituba, PA	246
S.BELA VISTA	Marituba, PA	246
S.BEIRA RIO	Vila Caisal, Santa Bárbara do Pará, PA	256
S. CASTANHAL	Castanhal, PA	142
SERR.CLAIM	Tome-Açu, PA	292
S.CONCORDIA	Concordia do Pará, PA	184
S. DIMENSÃO	São Miguel do Guamá, PA	5
S.FLORES MAD	Paragominas, PA	326
S.INTERLAGO	São Miguel do Guamá, PA	5
S.JAGUARE	Nova Esperança do Piria, PA	300
S. LUMA PAU	Paragominas, PA	326
S.MADEARTE	Vila Distrito,Ananideua,PA	258
S. MADALENA	Marituba, PA	246
S.MAD PORTE	São Miguel do Guamá, PA	5
S.NEGO PIRIA MAD.	Nova Esperança do Piria, PA	300
S.NORMASSA	Morenin,Benevides, PA	250
S.NOVA ERA	Moju, PA	462
S.NOVA JERUS	Marituba, PA	246

S.SANTA ROSA	Benfica, Benevides, PA	242
S.SÃO LUIZ	São Miguel do Guamá, PA	5
SÃO SEBASTIÃO	Ulianópolis, PA	492
S.S FRANCISCO	São Miguel do Guamá, PA	5
S.S SEBASTIÃO	Ulianópolis, PA	492
S.STª IZABEL	Santa Bárbara do Pará, PA	256
S.ST MARIA	Moju, PA	462
S.TUCUMAN	São Miguel do Guamá, PA	5
S.WXI QUEEN	Benfica, Benevides, PA	242
SER.MURENIN	Santa Bárbara do Pará, PA	256
SERR.007	Murinin, Belém, PA	250
SERR. DO IRMÃO	Nova Esperança do Piria, PA	300
SERR.ABRAMEX	Moju, PA	462
SERR.ABP MAD	Paragominas, PA	326
SERR.ACARA	Acara, PA	246
SERR. BENEVIDES	Murinin, Belém, PA	250
SERR.BIL	São Miguel do Guamá, PA	5
SERR. BIO MADEIRAS	Canaã dos Carajás, PA	1778
SERR. B O MADEIRAS	Canaã dos Carajás, PA	1778
SERR.BUJARU	Bujaru - PA	322
SERR. CASTANHEIRA	Bujaru - PA	322
SERR.CCM	Tomé-Açu, PA	292
SERR.CCR	Benevides, PA	226
SERR.CLAIN	Tomé-Açu, PA	292
SERR.COMERCIO	Tomé-Açu, PA	292
SERR.CONQUISTA	Conquista, Tomé-Açu PA	318
SERR. CRG MADEIRA	Icoaraci, PA	298
SERR.CRISTAL	Santa Bárbara do Pará, PA	256
SERR. DAMALTA	Icoaraci, PA	298
SERR. DIMENSÃO	São Miguel do Guamá, PA	5
SERR.DINIZ	Santa Bárbara do Pará, PA	256
SERR.DISTRITO	Ananindeua - PA	254
SERR. DITORA	Icoaraci, PA	298
SERR.DO CÉLIO	Nova Esperança do Piria, PA	300
SERR. DO PAM	Tome-Açu, PA	292
SERR. DO PEU	Nova Esperança do Piria, PA	300
SERR. DP MAD	Paragominas, PA	326
SERR.DPM MAD	Paragominas, PA	326

SERR. D.R MAD	Tome-Açu, PA	292
SERR.ESTRELA	Maju, PA	462
SERR. FIMEX	Vila Distrito,Ananideua,PA	258
SERR.FLORIMA	Paragominas, PA	326
SERR. FRISSE MADEIRA	Icoaraci, PA	298
SERR. GOF	Icoaraci, PA	298
SERR.GOLDES	Benevides, PA	226
SERR.GOLFF	Icoaraci, PA	298
SERR.HADEX	Benevides, PA	226
SERR. HR MADEIRA	Maju, PA	462
SERR.ICORACY	Icoaraci, PA	298
SERR. INAJAS	São Miguel do Guamã, PA	5
SERR.INFEX	Vila Caisal, Santa Bárbara do Pará, PA	256
SERR. IRMAO	Nova Esperança do Piria, PA	300
SERR. ITAPEMIRIN	Outeiro, Belém, PA	312
SERR.JURUA	Ananindeua - PA	254
SERR. JP MADEIRA	Benevides, PA	226
SERR. JS MADEIRA	Ulianópolis, PA	492
SERR.JY MAD	Maju, PA	462
SERR.LIDER MADEIRA	Icoaraci, PA	298
SERR.LIMA MADEIRAS	Tomé-Açu, PA	292
SERR.LUANDA	Benevides, PA	226
SERR.LUMA	Paragominas, PA	326
SERR. MDL	Bujaru - PA	322
SERR.M L F	Murinin, Belém, PA	250
SERR. MADEARTE MAD	Ananindeua - PA	254
SERR.MADEIRA	Mãe do Rio, PA	103
SERR. MADENAVE	Benevides, PA	226
SERR.MADRIL	Benevides, PA	226
SERR. MB MADEIRA	Ulianópolis, PA	492
SERR.MEDEIROS	Marituba, PA	246
SERR.MARITUBA	Marituba, PA	246
SERR.MARVEL	Maju, PA	462
SERR.NB MAD.	Ulianópolis, PA	492
SERR.NORMATIVA	Icoaraci, PA	298
SERR.NORTE BRASIL	Maracacuera, PA	300
SERR.NOVA ERA	Maju, PA	462
SERR.NOVA TERRA	Tomé-Açu, PA	292

SERR.NORCOPE	Novo Horizonte, Ipixuna do Pará, PA	182
SERR. NORMAZAN	Benevides, PA	226
SERR. NORTESUL	São Miguel do Guamá, PA	5
SERR.OUTEIRO	Outeiro, Belém, PA	312
SERR.PIMACON	Nova Esperança do Piria, PA	300
SERR. PIRIA	Cachoeiro do Piria, PA	352
SERR.PORTAL	Tomé-Açu, PA	292
SERR. PRISCILA	Garrafão do Norte, PA	194
SERR.PROMAP	Icoaraci, PA	298
SERR.RIO DOCE	Murinin, Belém, PA	250
SERR. RIO NEGRO	Icoaraci, PA	298
SERR. RIO VERMELHO	Benevides, PA	226
SERR.RT NORTE	São Miguel do Guamá, PA	5
SERR.RP MAD	Paragominas, PA	326
SERR. RP NORTE MADEIRA	São Miguel do Guamá, PA	5
SERR.SALVADOR	Icoaraci, PA	298
SERR.SB CAISAL	Vila Caisal, Santa Bárbara do Pará, PA	256
SERR. S MIGUEL	São Miguel do Guamá, PA	5
SERR. SÃO LUIZ	São Miguel do Guamá, PA	5
SERR. SÃO SEBASTIÃO	Tailândia, PA	826
SERR.SÃO TOMAIS	Belém, PA	290
SERR. SARDEL	Ulianópolis, PA	492
SERR. SMG MADEIRA	Tomé-Açu, PA	292
SERR.SOARES	Marituba, PA	246
SERR. SP MADEIRA	Santa Bárbara do Pará, PA	256
SERR. STª CRUZ	Benevides, PA	226
SERR.STª CRUZ	Benevides, PA	226
SERR. STºANTONIO	São Miguel do Guamá, PA	5
SERR. SANTA CRUZ	Benevides, PA	226
SERR. ST MARIA	Tailândia, PA	826
SERR.SANTA TEREZA	Maju, PA	462
SERR.TABOCAS	Santa Bárbara do Pará, PA	256
SERR. TAILANDIA	Tailândia, PA	826
SERR.TOFFOLI	Vila Caisal, Santa Bárbara do Pará, PA	256
SERR.VIMEX	Icoaraci, PA	298
SERR.WERSAN	Maracacuera,Icoaraci, PA	300
SERR.YR MAD	Maju, PA	462
SERRARIA	Maju, PA	462

SERRARIA AL MADEIRA	Vila Caisal, Santa Bárbara do Pará, PA	256
SERRARIA ANAJAS	São Miguel do Guamá, PA	5
SERRARIA BELEM	Belém, PA	290
SERRARIA BRASIL	Icoaraci, PA	298
SERRARIA CENTRAL	Benevides, PA	226
SERRARIA CRT NORTE	São Miguel do Guamá, PA	5
SERRARIA DIMENSÃO	São Miguel do Guamá, PA	5
SERRARIA DINIS	Santa Bárbara do Pará, PA	256
SERRARIA DITORA	Icoaraci, PA	298
SERRARIA DN	Ulianópolis, PA	492
SERRARIA DUNORTE	Paragominas, PA	326
SERRARIA GC	Icoaraci, PA	298
SERRARIA GM MADEIRA	Icoaraci, PA	298
SERRARIA GRENEX	Santa Bárbara do Pará, PA	256
SERRARIA IDEAL	Icoaraci, PA	298
SERRARIA INTERLAGOS	São Miguel do Guamá, PA	5
SERRARIA INTERLAGOS	São Miguel do Guamá, PA	5
SERRARIA IRITUIA	Irituia, PA	51
SERRARIA ITAMAL	Icoaraci, PA	298
SERRARIA JN MADEIRA	São Miguel do Guamá, PA	5
SERRARIA JN NORTE	São Miguel do Guamá, PA	5
SERRARIA MADAL	Murinin, Belém, PA	250
SERRARIA MADEPORTE	São Miguel do Guamá, PA	5
SERRARIA MADEREIRA	São Miguel do Guamá, PA	5
SERRARIA MÃE DO RIO	Benevides, PA	226
SERRARIA MOJU	Maju, PA	462
SERRARIA NAJAS MADEIRAS	São Miguel do Guamá, PA	5
SERRARIA NEGO PIRIA	Nova Esperança do Piria, PA	300
SERRARIA NOVA ESPERANÇA	Cachoeiro do Piria, PA	352
SERRARIA PARAGOMINAS	Paragominas, PA	326
SERRARIA PIRIA	Cachoeiro do Piria, PA	352
SERRARIA RIO VERDE	Benevides, PA	226
SERRARIA RN MADEIRA	Tomé-Açu, PA	292
SERRARIA SÃO LUIZ MADEIRA	São Miguel do Guamá, PA	5
SERRARIA SB MADEIRA	Santa Bárbara do Pará, PA	256

SERRARIA SPF	Bujaru - PA	322
SERRARIA ULIANOPOLIS	Ulianópolis, PA	492
SERRARIA VEDAC	São Miguel do Guamá, PA	5
SR JOÃO	Benevides, PA	226
SUMAROCK	São Miguel do Guamá, PA	5
TICO	Belém, PA	290
STª BARBARA	Santa Bárbara do Pará, PA	256
ULIANOPOLIS	Paragominas, PA	326
WOOD GREEN	Outeiro, Belém, PA	312
ZÉ DENIR	São Miguel do Guamá, PA	5
ZÉ LAURO	São Miguel do Guamá, PA	5
ZÉ MARIA	São Miguel do Guamá, PA	5
ZEZINHO	São Miguel do Guamá, PA	5

The default CO₂ emission factor for freight transportation activity f (EF_{CO₂,f}) is 129 gCO₂/t.km for heavy vehicles and 245 gCO₂/t.km for light vehicles. For this monitoring period, all freight transportation activities were carried out using heavy vehicles, as confirmed during the site visit and evidence assessed^{/10//17/}. Therefore, only the default CO₂ emission factor of 129 gCO₂/t.km was used.

Project emissions are only applicable in case biomass residues are transported over a distance of more than 200 km, otherwise, it is considered as 0. The demonstration has been carried out in the ER calculations spreadsheet^{/07//08/} and cross-checked through Google maps^{/27/}.

Cenol and Telha Forte

So, PE_y (tCO₂e) =

- 2022: 809
- 2023: 899
- 2024: 454
- 2025¹⁰: 195
- **Total: 2,357**

Leakage emissions (LE_y)

Monitoring using the latest available data^{/15/} has been carried out and it could be evidenced that there is surplus of the biomass types in the geographic region where the project activity belongs to. Therefore no leakage is applied.

So, LE_y = 0 tCO₂e

Emission Reductions

¹⁰ From 01/01/2025 to 31/05/2025

Therefore, according to the applied methodology, ER_y are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y$$

Where:

ER_y :	Emission reductions in year y;
BE_y :	Baseline reductions in year y;
PE_y :	Project reductions in year y;
LE_y :	Leakage reductions in year y.

So, $ER_y = BE_y - PE_y$. Therefore, **ER_y (tCO₂e) =**

- 2022: 20,338
- 2023: 23,519
- 2024: 27,318
- 2025¹¹: 12,193
- **Total: 83,368**

4.4 Quality of Evidence to Determine Reductions and Removals

The evidence used to determine the GHG emission reductions and carbon dioxide removals and its steps are described below:

- 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 for this project type.

¹¹ From 01/01/2025 to 31/05/2025

5 VERIFICATION OPINION

5.1 Verification Summary

The GHG statement is the responsibility of the project proponent, whether the project conforms with the verification criteria for projects set out in VCS Standard Version 5.0.

Verifit's verification approach is based on the understanding of the risks associated with reporting the project activity, estimates of GHG emission data and the controls to be implemented to mitigate these. Verifit planned and performed the verification by obtaining evidence, other information and explanations that Verifit considered necessary to give reasonable assurance that the estimated GHG emission reductions are fairly to be achieved.

This verification was conducted in accordance with requirements of ISO 17029:2019, ISO 14065:2020 and ISO 14064-3:2019.

5.2 Verification Conclusion

This is an unmodified opinion, in accordance with the requirements of ISO 14064-3:2019, that is:

- there is sufficient and appropriate evidence to support material emissions, removals or storage;
- the criteria are appropriately applied to substantial emissions, removals or storage;
- The effectiveness of controls has been evaluated.

VERIFIT, located at CRA 30 # 7 AA – 207 – Torre Scaglia – Medellín – Antioquia – Colombia, contracted by Sustainable Carbon – Projetos Ambientais Ltda, whose legal representative is Stefano Merlin, has carried out the independent third-party verification of the activity of the "Cenol and Telha Forte Ceramics Switching Fuel Project ", service order (internal ref number) 25-035.

It is our responsibility to issue an independent verification report about the compliance of the GHG-Project with the requirements of the certification program VCS VERRA, ISO 14064-2:2019 standard and applicable legislation under the framework of the carbon market in Brazil. GHG emission reductions were correctly calculated based on the methodology AMS-I.E. – version 7.0^{/03/} and the monitoring plan proposed in the registered VCS-PD^{/04/}.

The emission reduction statement is the responsibility of the Sustainable Carbon – Projetos Ambientais Ltda. VERIFIT confirms that the project “Cenol and Telha Forte Ceramics Switching Fuel Project” in Brazil was verified taking into account the following parameters:

- the verification of the GHG-Project has reached a reasonable level of assurance;
- assurance level: 95%, in accordance with VCS;

- materiality: 5%, in accordance with VCS (for Scale “Project”);
- objective: sale other markets;
- scope and criteria: verification of the project “Cenol and Telha Forte Ceramics Switching Fuel Project” in Brazil, in accordance with the requirements of the AMS-I.E. – version 7.0^{/03/} methodology; ISO 14064:2019 – Part 2, ISO 14064:2019 – Part 3 and Brazil’s applicable legislation;
- The baseline scenario implies that the ceramic production would have otherwise been produced by the use of fossil fuel (non-renewable wood);
- no material leaks apply in the GHG project;
- The project meets all the conditions of the methodology applied;
- the calculations of emission estimates were carried out correctly, transparently and conservatively and in accordance with the methodology applied;
- the assessment of environmental and social aspects is adequate and sufficient;
- the project contributes to the fulfilment of the Sustainable Development Goals, especially in relation to SDGs: 2, 3, 7, 8, and 13^{/16/};
- the monitoring systems and procedures are real and comply with the monitoring systems and procedures described in the monitoring plan;
- the project is in accordance with the legal requirements of Brazil;
- all the information has been applied in a coherent way in the registered VCS-PD^{/04/};
- in accordance with the provisions of the VCS Standard^{/1/}, the associated risk has been taken into account during the verification process, for this purpose the competence and impartiality of the audit team and the consistency of the project information have been considered, with technical and legal requirements applicable in the country (Insurance Certificate).
- based on the processes and procedures conducted, the GHG declaration is materially correct and a fair representation of the GHG data and information, is free from material discrepancies and is prepared in accordance with applicable standards.
- All monitoring data are based on default values, public and technical documentation, historical data and are considered correct and conservative as per VVB’s understanding. The project activity involves the monitoring of various parameters with uncertainties in their monitoring that may affect the results obtained. All means are used by PP to increase the precision level to comply with Brazilian regulations and therefore, it is possible to confirm that the monitoring of the project activity generates values with a low level of added uncertainties and in accordance with the materiality level.

In this way, the VVB confirms that the results of the GHG quantification of the “Cenol and Telha Forte Ceramics Switching Fuel Project” are within the materiality described above, in accordance with the formulation and monitoring of the project, complying with the requirements of the reference and the methodology applied. The GHG emission reductions were generated in accordance with the guidelines defined in ISO 14064-2:2019 and the results obtained in the

verification carried out under Standard ISO14064-3:2019. The table below discriminates the amount of GHG emission reductions (tCO₂e) by the project activity.

Verification period: From 01/01/2022 to 31/05/2025

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

Cenol and Telha Forte

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCUs (tCO ₂ e)	Removal VCUs (tCO ₂ e)	Total VCUs (tCO ₂ e)
01-Jan-2022 to 31-Dec-2022	21,147.00	809	0	20,338.00	0	20,338.00
01-Jan-2023 to 31-Dec-2023	24,418.00	899	0	23,519.00	0	23,519.00
01-Jan-2024 to 31-Dec-2024	27,772.00	454	0	27,318.00	0	27,318.00
01-Jan-2025 to 31-May-2025	12,388.00	195	0	12,193.00	0	12,193.00
Total	85,725.00	2,357	0	83,368	0	83,368

5.3 Ex-ante vs Ex-post ERR Comparison

Cenol and Telha Forte

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
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01-Jan-2022 to 31-Dec-2022	31,878	20,338.00	-36.20%	The 23.39% reduction in ERs stems primarily from updating the fNRB parameter (lower number compared to PD). In addition, variations between actual and projected production volumes further account for the difference.
01-Jan-2023 to 31-Dec-2023	31,878	23,519.00	-26.22%	
01-Jan-2024 to 31-Dec-2024	31,878	27,318.00	-14.30%	
01-Jan-2025 to 31-May-2025	13,188	12,193.00	-7.54%	
Total	108,822	83,368	-23.39%	

Refer to CAR 04. After clarifications and corrections provided by the PP, CAR 04 was closed.

VERIFIT SAS

Date: 04 September-2026



Ricardo Lopes
Managing Director (Final Approver)



APPENDIX I: COMMERCIALLY SENSITIVE INFORMATION

There is no commercially sensitive information included in the monitoring report to be excluded in the public version.

APPENDIX II: FINDINGS

Table 1: CLs opened during the verification process

CL	01	Potential impact on the statement: medium
Description		11/08/2025
The GPS coordinates of Cenol and Telha Forte in section 1.8 – Project Location of the MR (version 01) are not in accordance with the coordinates of PD.		
Answer 1:		Date: 19/09/2025
The difference between the geodetic coordinates informed in Section 1.8 of the MR (Version 01) and those in Section 1.9 (page 7) of the PD (Version 08, dated 20-June-2018) is due to the update carried out in the MR in order to provide a more accurate representation of the project activity location. However, in MR Version 01, the same set of coordinates was reported for both Cenol and Telha Forte Ceramics. This has now been corrected in MR Version 02. The accurate coordinates are as follows: - Cenol Ceramic: 1° 36' 19.8" S, 47° 29' 19.2" W - Telha Forte Ceramic: 1° 36' 00.1" S 47° 29' 04.0" W These updated coordinates are supported by the documentation provided as evidence and have been reflected in Section 1.8 of the MR (Version 02).		
Documents provided		
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 02 > VCS MR Project ID 54_01Jan2022-31May2025_v2		
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 02 > Evidence > CL01 > “Ceramica_Cenol_Coordenadas.png” and “Ceramica_TelhaForte_Coordenadas.png”		
Assessment 1:		Date: 17/10/2025
The geo-coordinates were duly revised in section 1.8 of the MR, version 2. However, the MR is not in according to the VCS Standard, version 4.7, section 3.2 Deviations. Therefore, this CL remains open.		
Answer 2 – Project participant response (2 nd Round)		Date: 21/11/2025
The information regarding the update of the project coordinates has been incorporated into Section 3.2.2 – Project Description Deviations of the Monitoring Report (Version 03), in accordance with VCS Standard v4.7, section 3.21.		

Documents provided	
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 03 > VCS MR Project ID 54_01Jan2022-31May2025_v3	
Assessment 2 – Verification team assessment (2 nd Round)	Date: 03/12/2025
The verification team reviewed the MR (Version 03), specifically Section 3.2.2, where the PP indicates that the deviation related to the update of the project coordinates has been included. However, the text inserted in Section 3.2.2 does not specify the corrected coordinates nor the previous coordinates, to clearly describe the deviation, nor refers to the section of the MR where the updated coordinates are presented, preventing full traceability within the document. Therefore, this CL remains open.	
Answer 3 – Project participant response (3 rd Round)	Date: 04/12/2025
The Section “3.2.2 Project Description Deviations” on page 31 of the MR (Version 04) has been updated to include both the previously reported coordinates of the project activity (1°32'12.06"S; 47°30'48.59"W for Cenol Ceramic and 1°32'12.41"S; 47°30'48.65"W for Telha Forte Ceramic) and the corrected coordinates (1°36'19.8"S; 47°29'19.2"W for Cenol Ceramic and 1°36'00.1"S; 47°29'04.0"W for Telha Forte Ceramic), clearly describing the deviation. The text now also includes a reference to Section 1.8 of the MR, where the updated project coordinates are presented. These additions ensure full traceability within the document.	
Documents provided	
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 04 > VCS MR Project ID 54_01Jan2022-31May2025_v4	
Assessment 3 – Verification team assessment (3 rd Round)	Date:
The previous and corrected (actual) coordinates were duly inserted in Section 3.2.2, version 04. Therefore, this CL is closed.	

CL	02	Potential impact on the statement: high
Description		11/08/2025
Section 1.9 Title and Reference of Methodology of the Monitoring Report (MR), Version 01, states TOOL16 - Project and leakage emissions from biomass (Version 05.0) and TOOL30 - Calculation of the fraction of non-renewable biomass (Version 04. 0). However, according to the VCS-PD (version 8) dated 20/06/2018 and the Validation Report for the Renewal of Crediting Period (Version 1) dated 20/06/2018, the project was revalidated using version 04.0 of TOOL16 and version 01.0 of TOOL30. Therefore, the MR is not in accordance with all provisions, requirements, equations and calculations from TOOL16 (version 04.0) and TOOL30 (version 01.0).		
Answer 1:		Date: 19/09/2025

In accordance with item 3.15.5 of the VCS Standard (Version 4.7), the project proponent is required to use the most recent version of data sources for monitored data and parameters. As fNRB, project emissions, and leakage are monitored data and parameters, the most recent versions of TOOL16 (Project and leakage emissions from biomass, Version 05.0) and TOOL30 (Calculation of the fraction of non-renewable biomass, Version 04.0) have been applied.

Documents provided

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CL02 > VCS-Standard-v4.7-FINAL-4.15.24

Assessment 1:

Date: 17/10/2025

The project proponent's reference to paragraph 3.15.5 of the VCS Standard, Version 4.7 is not applicable, as this paragraph pertains solely to the use of updated Global Warming Potential (GWP) values from the IPCC, and not to the selection of methodologies or methodological tools.

In accordance with paragraph 3.22.2 of the VCS Standard, Version 4.7, projects may continue to apply the version of the methodology under which they were validated or revalidated until the next validation, baseline reassessment, or renewal of the crediting period, unless otherwise specified. This principle also applies to the methodological tools associated with the approved methodology at that time.

The project was revalidated using TOOL16 (Version 04.0) and TOOL30 (Version 01.0), as documented in the VCS-PD (Version 8, dated 20/06/2018) and the Validation Report for the Renewal of Crediting Period (Version 8, dated 20/06/2018). Therefore, the Monitoring Plan approved during the revalidation was developed based on the methodology and tool versions valid at that time. In addition, all previous monitoring period verifications have also consistently applied the versions of the methodology and tools that were valid at the time of the project registration and its revalidation.

Thus, the VCS-PD and the emission reduction calculation spreadsheet do not reflect the same methodology and tool versions used during the project's revalidation, and are not in line with paragraph 3.22.2 of the VCS Standard, Version 4.7.

Therefore, this CL remains open.

Answer 2 – Project participant response (2nd Round)

Date: 21/11/2025

The Monitoring Report (VCS-MR Version 03) and the emission reduction calculation spreadsheet (Version 03) have been reviewed and updated to ensure consistency with the methodology and the tool versions established during the project's revalidation — specifically, TOOL16 (Version 04.0) and TOOL30 (Version 01.0).

The revision of TOOL16 affects the Project Emissions and Leakage parameters, while the revision of TOOL30 affects the update of the fNRB parameter.

The version of TOOL16 was revised from Version 05.0 to 04.0. Regarding project emissions, the revision did not require any adjustments to the calculations, since TOOL16 is only used to identify potential emission sources, which in this project activity is Emissions resulting from transport. Both versions of TOOL 16 (v.4 and v.5) recommend the use of TOOL12, Version 01.0 to estimate the referred source of project emission; therefore, no calculation adjustments

were necessary and only the VCS-MR version 3 (Section 5.2 Project Emissions, page 50) was adjusted to reflect the TOOL 16 version 4 used.

The revision of TOOL16 also influenced leakage. Although it was initially used TOOL16 Version 05.0 to calculate Leakage (9th VCS-MR Version 01 and 02), this approach is not the one defined in the Monitoring Plan established in the VCS-PD Version 08, which determines that Leakage must be calculated by applying AMS-I.E (Version 07) together with the “General Guidance on Leakage in Biomass Project Activities” (Version 03). Thus, to ensure consistency with what was established in the VCS-PD, the Section 5.3 Leakage Emissions, page 52 of the VCS-MR (Version 03) was adjusted, replacing the application of TOOL16 and following the steps and requirements of AMS-I.E (v7) and the aforementioned CDM general guidance (v3). Since there are no methodological differences in the leakage calculation between these methodologies and TOOL16 (Version 05.0), the surplus calculations were not changed, and all numerical results remain the same. Additionally, minor adjustments were made to the equations presented in the MR to improve clarity, alignment with the calculation spreadsheet, and traceability of the parameters used. These adjustments did not affect any results or modify the calculated leakage values. Thus, Leakage Emissions are aligned with the Monitoring Plan established in the VCS-PD version 08.

For TOOL30, which refers to fNRB parameter, the version was revised from Version 4.0 to 1.0, according to the version used during the project revalidation. It is important to note that although the Renewal of Crediting Period Validation Report (Version 1, dated 20/06/2018) mentions the use of TOOL30 Version 01.0, the revalidation calculation spreadsheet (VCS PD_Calculation_Cenol and Telha Forte_v.8) applied the method described in Annex 20 of the 35th meeting of the Clean Development Mechanism (CDM) Small Scale Working Group (document available at: http://cdm.unfccc.int/Panels/ssc_wg/meetings/035/ssc_035_an20.pdf).

Although the calculations are largely similar, there are small methodological differences between the two approaches that prevent the use of biome-specific data for the Amazon region, as applied during revalidation. For this reason, the calculation spreadsheet for this VCS-MR (Version 03) was adapted in relation to the PD revalidation spreadsheet, using representative data for the entire Brazilian territory in the calculation of fNRB, since TOOL30 Version 01.0 allows the adoption of national, regional, or local data depending on their availability and suitability. These adjustments related to the revision from TOOL30 Version 4.0 to Version 1.0 were also incorporated into the VCS-MR Version 03 Section 4.2 Data and Parameters Monitored, under the fNRB parameter (page 41).

This adaptation was formally documented through a deviation included in the VCS-MR (Version 03) section 3.2.2 Project Description Deviations, page 31, demonstrating that the change in data source does not compromise the applicability of the methodology, additionality, or baseline scenario consistency.

Additionally, during this revision process, updated data from the Brazilian Institute of Geography and Statistics (IBGE) on firewood consumption (parameter H) were incorporated. In summary, the project remains in full compliance with the requirements established in TOOL30 Version 01.0, as per the PD and the Renewal of Crediting Period Validation Report, with the relevant clarifications provided in this Monitoring Report (Version 03).

Documents provided

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 03 > Evidence > CL02 > PD_Calculation_Cenol and Telha Forte_v.8

Assessment 2 – Verification team assessment (2nd Round)

Date: 02/12/2025

The PP revised the VCS-MR (Version 03) and the ER calculation spreadsheet (Version 03) to be consistent with the methodology and tool versions applied during the revalidation, i.e. TOOL16 (Version 04.0) and TOOL30 (Version 01.0).

The PP clarified that the revision of TOOL16 affects the Project Emissions and Leakage parameters, while the revision of TOOL30 affects the update of the fNRB parameter.

Regarding Project Emissions, the PP clarified that TOOL16 is used only to identify emission sources and that both Version 04.0 and Version 05.0 point to TOOL12 (Version 01.0) for quantification. The verification team confirms that the update in Section 5.2 of the VCS-MR (Version 03) is accurate and that no calculation changes were required.

About Leakage Emissions, the PP clarified that the Monitoring Plan approved during revalidation specifies the use of AMS-I.E (Version 07) together with the CDM “General Guidance on Leakage in Biomass Project Activities” (Version 03), not TOOL16. The revision in Section 5.3 of the VCS-MR (Version 03) restores consistency with the VCS-PD. The verification team confirms that the leakage emissions calculations remain unaffected, as the leakage quantification under these documents is methodologically consistent with TOOL16 Version 04.0.

Concerning the updates Related to TOOL30 (from Version 04.0 to Version 01.0), the PP updated the fNRB estimation to reflect TOOL30 (Version 01.0), which is the version applied at revalidation. The PP also clarified that the revalidation calculation spreadsheet used the method from Annex 20 of the 35th CDM SSC Working Group meeting, which differs slightly from TOOL30 (Version 01.0) and relied on biome-specific data for the Amazon region. As TOOL30 Version 01.0 allows the use of national, regional, or local data depending on their availability and suitability, the PP adopted Brazil-wide representative data for this MR (Version 03). This constitutes a deviation from the approach used during revalidation. The verification team confirms that this deviation has been appropriately documented in Section 3.2.2 (Project Description Deviations) of the VCS-MR (Version 03), and that the new data source is transparent, justified, and does not affect the applicability of the methodology, additionality assessment, or baseline consistency.

In addition, the incorporation of updated data from the IBGE - Brazilian Geographic and Statistic Institute (available at:

<https://cidades.ibge.gov.br/brasil/pesquisa/16/12705?ano=2024>) regarding firewood consumption (for parameter H) was also reviewed. The updated values are consistent with TOOL30 (Version 01.0) requirements and do not introduce methodological inconsistencies.

Therefore, this CL is closed.

CL	03	Potential impact on the statement: low
Description		11/08/2025
Section 1.12 of MR, version 01: A) The SDGs of section 1.12 of MR, version 01 (2, 3, 7, 8, 13, 17) are different from the previous MRs (7,8,12,13). B) The number of basic food baskets and money donated presented in the MR is not fully covered by the evidence presented; C) It is not clear the source of the 606 hectares used for the SDG 7.0; D) There is no evidence of the project's SD contributions in the MR as appendix.		

Answer 1:	Date: 19/09/2025
A) Section 1.12 of the MR (Version 02) was revised to align SDG reporting with the requirements of the VCS Monitoring Report Template (v4.4). In this revision, it was clarified that contributions to SDGs reported in previous monitoring periods were assessed qualitatively through the SocialCarbon methodology. For the current monitoring period, no activities directly or quantitatively related to SDG 12 were implemented, and this has now been explicitly stated in the MR. The contributions for SDGs 2, 3, 7, 8, 13, and 17 are presented in Table 1 of the MR, supported by records and evidences provided. B) The donations of basic food baskets and monetary contributions related to SDG 2 (Zero Hunger) have been updated in the MR and are now fully supported by the evidence provided. C) The 606 hectares reported for SDG 7.0 were derived from the parameter “Hectares saved (ha/year)” and the length of the monitoring period (01/01/2022 to 31/05/2025). The Excel file Row3_SDG7_v2 has been submitted as supporting evidence, containing the calculation inputs, detailed computation steps, underlying assumptions, and annotated references to data sources to ensure full traceability. D) The evidence of the project's SD contributions has been included in the MR as Appendix 2, in line with the requirements of the VCS Monitoring Report Template, v4.4.	
Documents provided	
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CL03 > B> “CestaBasica_3.jpg”; “doacoes-ceias-natal.jpg”; “Recibos-Doacoes-Comunidade-3.pdf” “Recibos-Doacoes-Comunidade-7.pdf”; “Recibos-Doacoes-Comunidade-9.pdf”. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CL03 > C> “Row3_SDG7_v2”.	
Assessment 1:	Date: 17/10/2025
A) The verification team reviewed the revised Monitoring Report (MR, Version 02), particularly Section 1.12 and the corresponding Table 1 regarding the reporting of Sustainable Development (SD) contributions. The PP clarified that, in previous monitoring periods, contributions to SDGs 7, 8, 12 and 13 were assessed qualitatively through the SocialCarbon methodology. For the current monitoring period, no activities directly or quantitatively related to SDG 12 were implemented, and this has now been explicitly stated in Section 1.12 of the MR (Version 02). The MR now reports contributions to SDGs 2, 3, 7, 8, 13, and 17, in line with the VCS Monitoring Report Template (v4.4) and the VCS Standard (v4.7), and presents the information in the required Table 1. Supporting evidence has been added in Appendix 2 of the MR (Version 02). In addition, the verification team understands that the way the MR (Version 02) now reports contributions to SDGs (2, 3, 7, 8, 13, and 17) is acceptable, as at the time the project was revalidated in 2018 — as documented in the VCS-PD (Version 8, dated 20/06/2018) and the Validation Report for the Renewal of the Crediting Period (dated 20/06/2018) — this was before the issuance of the VCS Standard (v4.2) on 20 January 2022, which required project proponents to demonstrate contributions to at least three SDGs in all monitoring reports verified after that effective date. B) The donations of basic food baskets and monetary contributions related to SDG 2 have been properly updated by the project proponent (PP) in the Section 1.12 of MR, version 2, and the corresponding evidence has been duly verified.	

- C) The 606 hectares reported for SDG 7.0 were derived from the parameter “Hectares saved (ha/year)” and the length of the monitoring period (01/01/2022 to 31/05/2025). The Excel file Row3_SDG7_v2 has been submitted as supporting evidence, containing the calculation inputs, detailed computation steps, underlying assumptions, and annotated references to data sources to ensure full traceability
- D) The evidence of SD contributions were duly included as Appendix 2 in the MR, version2.

CL is closed.

CL	04	Potential impact on the statement: low
Description		11/08/2025
In “Section 2.1.2 Stakeholder Consultation and Ongoing Communication” of the MR (Version 01): A) It is not clear what was the date of stakeholder consultation; B) It is not clear if the monitoring results (i.e: SDG actions, monitored parameters) were communicated to the stakeholders.		
Answer 1:		Date: 19/09/2025
A) Section 2.1.2 of the MR (Version 02) was revised to include the dates of stakeholder consultations, in accordance with the VCS Monitoring Report Template v4.4. The first consultation was carried out during the project validation, as evidenced in the Validation Report of the 1st PD, and this is also confirmed in the Validation Report of the revalidation of the 2nd crediting period (both reports have been provided as evidence). However, it was not possible to trace the exact day of this consultation, since it is not mentioned in the available documentation. This is explained by the fact that, at that time, the stakeholder consultation requirements under the Standard were less stringent and more flexible than current ones, and therefore the process was conducted in a simpler manner. For this reason, the exact date is not included in the MR. In addition, a stakeholder consultation conducted on 20-Mar-2015 was identified, and this date has been included in the MR. The minutes, attendance list, and a news report of this stakeholder consultation have been provided as supporting evidence. B) Section 2.1.2 of MR (v2) was updated to clarify how the monitoring results were communicated to stakeholders, with supporting evidence provided.		
Documents provided		
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CL 04 > A) > “VCS.VAL.18.108_FValRep_Cenol and Telha Forte.pdf”; “VALID_REP_54_2MAR2009”; “Ata_01”; “Ata_02”; “ListadePresenca_01”; “ListadePresenca_02”; “Noticia_Stakeholders Consultation_Polo São Miguel do Guamá_2015”. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramic Fuel Switching Project - 9th Monitoring Period > Version 02 > Evidence > CL04 > B) > “Cartilha-Cenol-Telha-Forte”; “Comunicações via wpp_CenolTelhaForte”.		

Assessment 1:	Date: 17/10/2025
A) The date of stakeholder consultation was duly inserted in the Section 2.1.2 of MR, version 2, and the corresponding evidence has been duly verified. B) The information about monitoring results to the stakeholders was duly inserted in the Section 2.1.2 of MR, version 2. CL is closed.	

CL	05	Potential impact on the statement: low
Description		11/08/2025
In “Section 2.2.2 Risk assessment” of the MR (Version 01) the Risks identified and the Mitigation or preventative measure(s) taken are not properly addressed or detailed, as required by the VCS Monitoring Report Template, v4.4:		
A) It is not clear that there are no risks and mitigation or preventative measure regarding to the working conditions; B) It is not clear that there are no policies regarding to Safety of women and girls and Safety of minority and marginalized groups, including children; C) It is not clear that there are no risks regarding to the pollutants (i.e. ashes).		
Answer 1:		Date: 19/09/2025
A) Section 2.2.2 Risk assessment of the MR (Version 02) has been updated in line with VCS Monitoring Report Template, v4.4, which requires the description of the risks identified at validation, and section 3.19.7 of VCS Standard (Version 4.7), which requires the identification of any risks related to working conditions as a result of project activities. In this context, since the replacement of native wood with renewable biomass does not create or aggravate any occupational risks for employees, no risks related to working conditions were identified at validation. Beyond the project activity, Cenol and Telha Forte ceramic industries provide their employees with the appropriate Personal Protective Equipment (PPE). A sample of PPE lists for the monitored period was submitted as evidence.		
B) No risks related to the safety of women and girls, nor to minority or marginalized groups, including children, were identified for the project activity at validation. The replacement of native wood with renewable biomass does not involve practices or interactions that could generate exposure, vulnerability, or negative impacts for these groups. Section 2.2.2 Risk assessment” of the MR (Version 02) has been updated to reflect this information. Beyond the project activity, Cenol and Telha Forte ceramic industries hire their employees under the Brazilian Consolidation of Labor Laws (CLT), which provides legal protections against discrimination and ensures specific rights for women, minors, and other vulnerable groups. The companies fully complies with these laws, maintaining a safe and inclusive working environment.		
C) There is a risk related to the generation of ashes due to the burning of biomass. This is the only negative impact identified for the project activity. However, this impact is mitigated by using the ashes as fertilizer. Section 2.2.2 Risk assessment of the MR (Version 02) has been updated to reflect this information.		
Documents provided		

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramic Fuel Switching Project - 9th Monitoring Period > Version 02 > Evidence > CL05 > A) > “FICHAS_DE_EPIS_TELHAFORTE”; “FICHAS_DE_EPIS_CENOL”

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramic Fuel Switching Project - 9th Monitoring Period > Version 02 > Evidence > CL05 > B) > “REGISTROFUNCIONARIOS_TELHAFORTE”; “REGISTROFUNCIONARIOS_CENOL”

Assessment 1:

Date: 17/10/2025

- A) Section 2.2.2 Risk assessment” of the MR, version 02, has been updated in line with VCS Monitoring Report Template, v4.4, which requires the description of the risks identified at validation, and section 3.19.7 of VCS Standard (Version 4.7), which requires the identification of any risks related to working conditions as a result of project activities. In this context, since the replacement of native wood with renewable biomass does not create or aggravate any occupational risks for employees, no risks related to working conditions were identified at validation. Beyond the project activity, Cenol and Telha Forte ceramic industry provides its employees with the appropriate Personal Protective Equipment (PPE). A sample of PPE lists for the monitored period was submitted as evidence. **CL A closed.**
- B) About safety of women and girls, as well as safety of minority and marginalized groups, including children, the revised section 2.2.2 of the MR, version 02, now includes the justifications for these categories explicitly marked as “No risk identified”. The text clarifies that the project activity (fuel replacement) does not involve practices or interactions that could create exposure or vulnerability. It also cites compliance with the Brazilian Consolidation of Labor Laws (CLT), which provides legal protections against discrimination and ensures rights for women and vulnerable groups. Evidence of the employment relationship of several employees through the CLT was provided. The explanation is appropriate and supported by evidence provided of the employment relationship of several employees through the CLT framework. **CL B closed.**
- C) As per risks regarding pollutants, the revised Section 2.2.2 of the MR (v2) now identifies ash generation from biomass combustion as the only relevant environmental risk, with mitigation described (reuse of ashes as fertilizer). This description meets the requirement of listing both the identified risk and the mitigation measure. However, no evidence to confirm the use of ashes as fertilizer was provided. **CL C remains open. Therefore, this CL remains open for item “C” above.**

Answer 2 – Project participant response (2nd Round)

Date: 21/11/2025

C) Evidence of the use of ashes as fertilizer is being provided in response to this finding. It is also demonstrated in the video evidence, where at minute 2:00 the reuse of ashes as fertilizer is shown and mentioned by the project representatives.

Documents provided

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramic Fuel Switching Project - 9th Monitoring Period > Version 03 > Evidence > CL05 > C)

Assessment 2 – Verification team assessment (2nd Round)

Date: 02/12/2025

The evidence (photos, video) of the reuse of ashes as fertilizer was duly provided by the PP. **Therefore, this CL is closed.**

CL	06	Potential impact on the statement: low
Description		11/08/2025
It is not clear if there are mitigation or preventative measures taken related to the LCs in the sections 2.3.2 and 2.3.3 of MR, version 01.		
Answer 1:		Date: 19/09/2025
No mitigation or preventative measures have been taken related to the LCs because there are no LCs living within the project boundaries of Cenol or Telha Forte Ceramics Factories. Sections 2.3.2 and 2.3.3 of MR, version 02, have been updated to reflect this.		
Documents provided		
N/A		
Assessment 1:		Date: 17/10/2025
The verification team assessed the revised Sections 2.3.2 and 2.3.3 of the Monitoring Report (MR, Version 02) and observed that these sections have been updated to include “Local Communities (LCs)” in their respective justifications for the absence of mitigation or preventative measures, explicitly stating that no Indigenous Peoples, Local Communities, or customary rights holders are present within the project boundaries. The explanation is consistent with the scope of the project activity and complies with the requirements of the VCS Monitoring Report Template v4.4, which allows “no risk identified” statements when adequate justification is provided. In addition, the verification team also consulted the Interactive Map of FUNAI's Remote Monitoring Center, available at https://cmr.funai.gov.br/cmr/, and confirmed that there is no presence of Indigenous Peoples near the municipality of São Miguel do Guamá (where the project is implemented), in Pará State, northern Brazil. The National Foundation for Indigenous Peoples (FUNAI) is the Brazilian government agency responsible for protecting and promoting the rights of Indigenous Peoples. The Remote Monitoring Center (CMR) is a platform managed by FUNAI's General Coordination of Territorial Monitoring (CGMT), established by Decree No. 7,056 of December 28, 2009, and ratified by Decree No. 7,778 of July 27, 2012. Its function is to integrate geospatial information that supports territorial and indigenous policy planning. The database, continuously updated since 2015, provides data from satellite images with a spatial resolution of 30 meters, where each image unit represents 30 meters on the Earth's surface. Therefore, this CL is closed.		

CL	07	Potential impact on the statement: high
Description		11/08/2025

The sources of the values bellow in the spreadsheet “VCS MR Calculation Project ID 54 01Jan2022-31May2025_v1” are not traceable:

A) “**9th period - VCUs Calculations**” tab

- Conversion factor - TJ to MWh (cell E168): Link not accessible and value not found;
- NCVs – cells D173 and D174.

B) “**fNRB,y**” tab:

- Specific Gravity: 0.61 (G30 cell) and the other cells: D45, D47, D49;
- MAI_{other,I} (cell D46), F_{other,I} (cell D48) and P_{other} (cell D50): To clarify why these values are missing?
- Area (cells I45 to I50): Link not accessible and values not found;
- As per the “Average MAI” (cell H54), it is not clear how the number of 0.76 was calculated.

C) “**Renewable biomass**” tab: cells: AC3 and AD3.

D) “**Biomass Surplus**” tab:

“Production of forest residues (PA)” (cell I4), “Production of Açaí Pits (PA)” (cell S4), and “Usage of this residues in Project Region” (cells I10 and S10) for the year 2022: It is not clear how these values were calculated and the sources of the values.

Answer 1:

Date: 19/09/2025

A) - The note in cell C168 was updated to include the accessible link and additional information on where to locate the value in the reference.

- The notes on cells C173 and C174 were adjusted in the spreadsheet to ensure traceability of the values. In addition, evidence for the NCV of sawdust was provided.

B) - The “Specific Gravity” values (cells G30, G33, G36 and G39) were updated based on the Global Wood Density Database (Zanne et al., 2009). This reference provides reliable wood density data (oven-dry mass/fresh volume) for species in tropical South America. The supporting evidence has been provided.

Regarding cells D45, D47 and D49, references have been properly included in the cell notes C45, C47 and C49 to ensure traceability and verification of the values in the adjusted links.

-The parameters MAI_{other,I} (cell D46), F_{other,I} (cell D48), and P_{other} (cell D50) are not applicable to the Project’s fNRB calculation. As per Tool 30, “Other land areas shall include any land areas from which woody biomass may be sourced, such as wooded lands and agricultural lands. Where any of potential sources of supply are not taken into account, it shall be justified.”

The fNRB assessment already covers all relevant land areas in Brazil, considering woody biomass availability across the national biomes. These biomes encompass both wooded lands and agricultural areas, and no additional “other land areas” exist that could contribute to biomass supply. Cells D46, D48, and D50 have been adjusted to clarify this approach.

- The note on cell I44 has been updated with the link and information to trace the value.

- The value of 0.76 t/ha/year in cell H54 was obtained from the weighted average of the Mean Annual Increment (MAI) specific to each biome, originally expressed in tonnes of carbon per

hectare per year (0.36 tC/ha/year). This value is converted to total biomass by dividing by the carbon fraction of biomass, assumed to be 47%. Thus, $0.76 = 0.36 / 0.47$.

C) The notes in cells AC3 and AD3 were updated to include the accessible link and additional information on where to locate the referenced value.

D) The notes in cells I4, S4, I10 and S10 were updated to include the source and information on how the values were calculated.

Documents provided

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CL07 > A) > NCV_Serragem

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CL07 > B) > Global Wood Density Database

Assessment 1:

Date: 17/10/2025

Regarding the spreadsheet “VCS MR Calculation Project ID 54 01Jan2022-31May2025_v2”, these are the evaluation about the traceability of the cells:

A) “**9th period - VCUs Calculations**” tab: the links and information about the cells C168, D173 and D174 were duly revised – ok;

B) “**fNRB,y**” tab:

- Specific Gravity: 0.61 (G30 cell) - ok; D45 – ok: The value of 0.76 t/ha/year for MAIforest,I was derived from the Third National Communication of Brazil to the UNFCCC – Volume 3 (MCTIC, 2016) and it corresponds to the average annual biomass production per hectare, derived from the weighted mean of the Mean Annual Increment (MAI) for each biome. The original MAI figures were expressed in tonnes of carbon per hectare per year (tC/ha/year) and were converted to total biomass by dividing by the carbon fraction of biomass, assumed to be 0.47. Therefore, $0.76 = 0.36 / 0.47$; D47 and D49 – ok (Links were included in their respective notes, accessed and referred values confirmed by the verification team);
- MAIother,I (cell D46), Fother,I (cell D48) and Pother (cell D50): The verification team reviewed the justification and confirmed that the exclusion of parameters MAIother,I, Fother,I, and Pother is consistent with the methodological guidance in TOOL30. The national-scale fNRB assessment already incorporates all potential biomass sources within Brazilian biomes, including wooded and agricultural lands. As no additional land categories contribute to biomass supply beyond those already captured, the parameters can be excluded without affecting the completeness of the fNRB calculation. Ok;
- Area (cells I45 to I50): ok (Link is now included in cell I44, which was accessed and referred values confirmed by the verification team);
- “Average MAI” (cell H54) – ok: the description on how the number of 0.76 was calculated was already clarified in cell D45 explained above.

C) “**Renewable biomass**” tab: Cells: AC3 and AD3 – ok;

D) “**Biomass Surplus**” tab: Notes were added for “Production of forest residues (PA)” (cell I4), “Production of Açaí Pits (PA)” (cell S4), and “Usage of this residues in Project Region” (cells I10 and S10) for the year 2022, providing the explanation on how these

values were calculated and the sources of the values were also confirmed by the verification team – ok.

Therefore, this CL is closed.

CL	08	Potential impact on the statement: high
Description		11/08/2025
In “Section 4.2 Data and Parameters Monitored” of the MR (Version 01), the following issues were detected:		
1) For Data / Parameter “PRy”: In the “Calculation method” field, it is mentioned that “<i>The ceramic industry has an internal control of the quantity of ceramic tonnes produced.</i>”. However, PP is requested to provide further information about it; 2) For Data / Parameter “Qrenbiomass”: By assessing the MR of the previous verification (MR 8, version 04, dated 21/12/2022, for the monitoring period from 01/01/2021 to 31/12/2021), it was observed that the total amount of renewable biomass (summing both Açaí pits and Sawdust for both Cenol and Telha Forte plants) was 17,998.45 ton for the total production of 64,375.70 tonnes of ceramic units (PRy) for the year 2021. However, for the current verification (from 01/01/2022 to 31/05/2025), the MR (Version 01) indicates the total production for both Cenol and Telha Forte plants between 60,349 and 63,473 tonnes of ceramic units (PRy) annually for the year 2022 to 2024 (complete years), which is close to the previous verification of 2021, but the total amount of renewable biomass (summing both Açaí pits and Sawdust for both Cenol and Telha Forte plants) were much higher, oscillating between 24,530 and 30,901 ton of renewable biomass utilized, which represents an increase between 36% and 72% of renewable biomass utilized for the years 2022 to 2024. Therefore, explanation of the reason(s) for such variation(s) is missing; 3) For Data / Parameter “fNRB.y”: In the “Source of data” field, it is mentioned the “Methodological Tool TOOL30 - Calculation of the fraction of non-renewable biomass” version 04.0. However, the project was revalidated using version 01.0 of TOOL30. 4) For Data / Parameter “Renewable biomass surplus”: In the “Value monitored” field, the values indicated in the table for Açaí Pits were around 607,000 tonnes between 2022 and 2025, while in the past verification the value was around 112,000 tonnes considering the year of 2016. Similarly, the values indicated in the table for Forest residues (sawdust, wood residue) were around 398,000 and 453,000 tonnes between 2022 and 2025, while in the value was around 2,950,000 tonnes considering the year of 2016. Therefore, PP is requested to explain the reason(s) for such variation(s). 5) For Data / Parameter “Df,m”: In the “Value monitored” field, the values indicated in the table for the “Df,m (km)” range from 23,872 km to 27,070 km between the years 2022 and 2024 (complete years), while in the past verification the “Df,m (km)” value was 17,268 km. Therefore, the reason(s) for such variation(s) is missing.		
Answer 1 – Project participant response		Date: 19/09/2025
1) The “Calculation method” field in Data / Parameter “PRy” was adjusted accordingly. Cenol and Telha Forte ceramic industries have an internal control system, based on physical records, to track the quantity of ceramic pieces produced. The total production in tonnes is calculated by the Sustainable Carbon team based on the average weight of the pieces. 2) As Qrenbiomass is a monitored parameter, variations in its values may occur. Such variations may result from several operational factors, including differences in biomass moisture content, the proportion of açaí pits and sawdust used, fluctuations in		

availability and price, procurement strategies and stock management, among others. These factors can directly influence the total amount of biomass recorded, even when production remains within a similar range.

When analyzing the historical record of the project activity (PD 2, MR 7, MR 8, and MR 9), it becomes evident that biomass consumption has always shown fluctuations over time, not only between MR 8 and MR 9. For example, MR 8 (2021) presented lower biomass consumption, whereas other monitoring periods (such as MR 7 and MR 9) reflect higher levels of use. In this context, using the Project Design Document (PD 2) as a reference, biomass consumption during this monitoring period was 16% higher in 2022, 46% higher in 2023, and 18% higher in 2024.

In conclusion, the increase in renewable biomass consumption reported in MR 9 indicates the expected variability of a monitored parameter, consistent with the project's historical record.

- 3) In accordance with item 3.15.5 of the VCS Standard (Version 4.7), the project proponent is required to use the most recent version of data sources for monitored data and parameters. As fNRB is a monitored parameter, the latest version of TOOL30 (Calculation of the fraction of non-renewable biomass, Version 04.0) has been applied.
- 4) The variations identified for Forest residues (sawdust, wood residue) and Açai Pits are attributed to the update of the reference literature used to estimate forest residue production in the state of Pará, in accordance with item 3.15.5 of the VCS Standard (version 4.7), which requires the project proponent to use the most recent version available of monitored data sources.
- 5) The increase in Df,m (km) values between MR 8 and MR 9 is due to changes in biomass suppliers between the monitoring periods. As suppliers change, the distances of freight transportation also change.

According to the CDM TOOL12 (Data/Parameter table 2), Df,m is the return trip distance between the origin and destination of freight transportation activity f in monitoring period m and must be updated whenever the distance changes. Therefore, variations in Df,m are expected and consistent with the monitoring requirements of the methodology.

Documents provided

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CL07 > 2)>
PD_MR_Qrenbiomass_PRY_Variation

Assessment 1 – Verification team assessment

Date: 17/10/2025

- 1) It was explained that Cenol/Telha Forte Ceramic maintains an internal control system with physical production records, and that total production in tonnes is calculated by Sustainable Carbon based on the average weight of ceramic pieces. The verification team confirms that physical production records were assessed during the site visit and how the total production was calculated by Sustainable Carbon was also discussed during the site visit. Ok.
- 2) It was duly explained that the increase in renewable biomass consumption in MR 9 reflects expected variability is consistent with the project's historical records. Ok.
- 3) The reference to paragraph 3.15.5 of the VCS Standard v4.7 is not applicable, as it only concerns updates to GWP values, not methodology or tool selection. According to paragraph 3.22.2, projects may continue using the methodology and associated tools valid at the time of validation or revalidation until the next reassessment. The project was revalidated using TOOL16 v4.0 and TOOL30 v1.0, as documented in the VCS-PD (Version 8, dated 20/06/2018) and Validation Report (dated 20/06/2018). Therefore,

- the VCS-PD and emission reduction spreadsheet do not reflect those same versions of TOOL16 v4.0 and TOOL30 v1.0. Refer to CL 02. Pending.
- 4) The verification team noted that the variation in the values of Renewable Biomass Surplus remains unclear. It is not clear whether this reduction in available renewable biomass surplus could have any implications for potential leakage emissions, in accordance with the applicability conditions and procedures described in TOOL16 – Project and leakage emissions from biomass (Version 04). Pending.
 - 5) It was clarified that variations in Df,m values are due to changes in the majority of biomass suppliers. Supplier turnover are subject to happen in the sector and adequately explains distance variations. In addition, the values in the table inserted in “Value monitored” for the Data / Parameter “Df,m” were checked and consistent with the values found in the revised ER calculation spreadsheet (tab “Project Emissions”) and consistent with the images of distance estimates provided. Ok

Therefore, this CL remains open for items “3” and “4” above.

Answer 2 – Project participant response (2nd Round)

Date: 18/11/2025

3) The MR (Version 03) and the calculation spreadsheet (Version 03) were updated to use TOOL30 v1.0 and TOOL16 v4.0 as established in the VCS-PD (Version 8, dated 20/06/2018) and the Validation Report (Version 1, dated 20/06/2018).

4) As highlighted in Round 1, the significant differences in the Renewable Biomass Surplus values result from the update of data sources, aiming to reflect more recent and accurate information. Since this is a monitored parameter, variations over time are expected.

For forest residues, the change is related to the revision of IBGE data on wood production in Pará (3,459,265 m³), which showed a decrease over the years, leading to a proportional reduction in the estimated amount of residues. For açaí, the previous MR considered only production from extractive sources. In the current MR, the total state production was considered (1,389,000 tonnes), including both extractive and cultivated areas, which represents a significantly higher volume and resulted in a considerable increase in the estimated Renewable Biomass Surplus for açaí.

As established in the Project Description (v.8), leakage emissions are assessed in accordance with the methodology AMS-I.E (Version 7) and the “General Guidance on Leakage in Biomass Project Activities”.

In line with these requirements, the potential source of leakage for the project is related to the competing use of biomass. According to the applicable general guidance, if the quantity of available renewable biomass in the region is at least 25% greater than the total quantity of biomass utilized (including the project activity), this source of leakage can be neglected; otherwise, it shall be estimated and deducted from the emission reductions.

As presented in Section 5.3 — Leakage Emissions, Tables 8 and 10, the updated assessment confirms that the regional availability of renewable biomass continues to exceed the 25% threshold. Specifically, Renewable Biomass Surplus represents between 26.42% and 31.05% for forest residues and between 110.47% and 111.76% for açaí pits.

These results demonstrate that renewable biomass remains abundantly available in the region, confirming that no leakage risk is associated with the project activity and therefore can be estimated as 0 (zero) tCO₂e during this monitoring period.

Documents provided

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 03 > VCS MR Project ID 54 01Jan2022-31May2025_v3

Assessment 2 – Verification team assessment (2nd Round)

Date: 02/12/2025

3. The PP updated the Monitoring Report (MR, Version 03) and ER calculation spreadsheet (Version 03) to consistently apply TOOL30 v1.0, which was the version used at revalidation. The PP also clarified that differences between f_{NRB} values in the previous and current verifications stem from the fact that the previous verification applied the CDM SSC WG Annex 20 approach, while the current verification uses TOOL30 v1.0. This explanation is consistent with the respective methodological frameworks, and the revision ensures methodological conformity. Ok.

3.The PP updated Section 5.3 Leakage Emissions of the revised MR (Version 03) and provided additional clarification showing that the significant changes in Renewable Biomass Surplus values arise from updated and more accurate data sources, specifically revised IBGE wood production data for Pará, reducing estimated forest residue availability.

The PP also re-assessed leakage following AMS-I.E (Version 7) and the General Guidance on Leakage in Biomass Project Activities, confirming that regional renewable biomass availability exceeds the 25% threshold for forest residues (between 26.42% and 31.05% as demonstrated in Table 8). Accordingly, leakage emissions can be conservatively considered 0 tCO_{2e}, consistent with the applicable methodological guidance. The justification is now clear, complete, and methodologically compliant. Ok.

Therefore, this CL closed.

CL	09	Potential impact on the statement: low
Description		11/08/2025
In the Excel file named "Row3_SDG7", it is not clear how the "Amount of wood saved [mst/year]" and "Hectares saved (ha/year)" values (cells F9, G9, F10 and G10, for both Cenol and Telha Forte, respectively) were calculated or determined. Evidence of these values is missing.		
Answer 1 – Project participant response		Date: 19/09/2025
The excel file has been updated to include the values used to calculate the "Amount of wood saved [mst/year]" and "Hectares saved (ha/year)". The calculation steps and underlying assumptions have been detailed, and the data sources have been referenced directly in the file through annotations to ensure full traceability.		
Documents provided		
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CL09 > "Row3_SDG7_v2".		
Assessment 1 – Validation team assessment		Date: 17/10/2025
It was explained that the 606 hectares reported were calculated based on the parameter "Hectares saved (ha/year)" and the length of the monitoring period. The Excel file Row3_SDG7_v2 was provided as supporting evidence, with traceable calculations and annotated data sources.		
Therefore, this CL is closed.		

Table 2: CAR from this verification

CAR	01	Potential impact on the statement: low
Description		11/08/2025
In Section 2.4 of the MR (version 01): A) License #46/2020 expired on 01/12/2024; B) Operation License #29/2021 expired on 28/06/2024; C) Declaration of exemption from granting expired on 27/10/2024; D) The activities described in the Operation Environmental License #010/2022 is different of the activities described in the project activity. In addition the address in this license is different of the MR.		
Answer 1:		Date: 19/09/2025
A) Cenol Ceramic Factory requested the renewal of the Extraction License #46/2020. However, due to delays from the environmental agency, the renewed license has not yet been issued. The renewal application protocol was submitted as evidence. B) Telha Forte Ceramic Factory requested the renewal of the Operation License #29/2021. However, due to delays from the environmental agency, the renewed license has not yet been issued. The renewal application protocol was provided as evidence. C) The declaration of exemption from granting valid until 2035 was submitted as evidence. D) The Operation Environmental License #010/2022 refers to a fish farming activity carried out by Cenol Ceramic Factory. As evidence, the correct Manufacturing Operation Licenses of Cenol, covering the period 2022–2025, were submitted, along with the renewal application protocol for the license that expired in 2025, which is currently under review by the competent authority.		
Documents provided		
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CAR01 > A) > ProtocoloRenovação_LOExtraçãoCenol		
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CAR01 > B) > LO_Renovação_TelhaForte_2024		
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CAR01 > C) > DispensaOutorga_Cenol_val.25022035		
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CAR01 > D) > LOFabricação_Cenol_2022-2025; LOFabricação_Renovação_Cenol_2025		

Assessment 1:	Date: 17/10/2025
A) The renewal application protocol was dully presented as updated of the extraction license; CAR A closed. B) The presented evidence mentions the renewal of the LO 032/2023 instead of the Operation License #29/2021; CAR B remains open. C) The declaration of exemption from granting was duly updated; CAR C closed. D) The renewal application protocol was dully presented as updated of the operation license. CL D closed. Therefore, this CAR remains open for item “B” above.	
Answer 2 – Project participant response (2 nd Round)	Date: 21/11/2025
B) The evidence refers to the renewal of Operation Licence 032/2023 because this license officially replaced Operation License #29/2021. As stated in LO 032/2023 itself, the substitution occurred due to changes in the company’s legal nature and operating classification, in accordance with IN 01/2022. Therefore, the renewal request was submitted specifically for LO 032/2023, which was the valid license at that time. As supporting documentation, LO 29/2021, LO 032/2023, and the renewal request protocol were all provided to ensure full traceability and transparency.	
Documents provided	
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 03 > Evidence > CAR01 > B)	
Assessment 2 – Verification team assessment (2 nd Round)	Date: 02/12/2025
It is clearly stated in Operation License 032/2023 that it replaces Operation License #29/2021, which is why the renewal of the license refers to Operation License 032/2023. Therefore, this CAR closed.	

CAR	02	Potential impact on the statement: high
Description		11/08/2025
The following issues were observed in the ER calculation spreadsheet (version 01): A) “9th period - VCUs Calculations” tab: – It is not consistent the number of months (43) mentioned in the cell D149 with the cell F147; – It is not clear the consistence of the numbers 20742.53 (cell D150), 241.9(cell D151), 244.07(cell D152) with the PD; – BEy calculations from 2023 until 2025 have used the <i>f</i>NRB,y of 2022. B) “Production” tab – Cenol - May 2023: the evidence provided refer to an amount of 273,000 bricks 19x29 whereas the monitoring spreadsheet reported 283,5000 bricks 19x29; – “Weight of Ceramic Units (Tonnes)” (cells O5 to O11, Z5 to Z7): It is not clear how the “Weight” values were calculated. C) “Renewable Biomass” tab		

Telha Forte:

- March, April, June, November and December of 2023: the evidence provided refer different amounts than those in the monitoring spreadsheet;
- November 2024: the evidence provided refer different amount than that showed in the monitoring spreadsheet;
- January, April, May of 2025: the evidence provided refer different amounts than those in the monitoring spreadsheet.

D) **“Project Emissions”** tab:

- It is not clear why the cells AF27 to AI27 are empty;
- There is no consistence the multiplication by the cell K9 in the cells: J26, J28 to J30,
- Although the Origins and Destiny addresses have been provided in cells D24 to D267 and E24, these cannot be precisely found in Google maps for example for confirming the “DF,m (km)” values (cells F24 to F267). Therefore, evidence to confirm the distances is missing.

Answer 1:

Date: 19/09/2025

A) – The note on cell D149 was adjusted to be consistent with cell F147

- The notes in cells D150, D151 and D152 of the VCS MR calculation spreadsheet v.2 were updated to ensure full traceability, as well as the notes in cells D155, D 156 and D157. The values were derived from historical production and biomass consumption data and can be verified in the VCS PD Calculation spreadsheet (v.8) that has been provided as evidence.

- BEy calculations from 2023 to 2025 were adjusted in the VCS MR calculation spreadsheet v.2 to apply the respective $f_{NRB,y}$ values for each monitoring year.

B) – The value in cell G21(VCS MR calculation spreadsheet, tab “Production”) was adjusted to 273,000, aligned with the monitored parameter spreadsheet.

- The values reported in cells O5 to O11 and Z5 to Z7 for “Weight of Ceramic Units (ton)” were not derived through calculation but obtained through direct physical weighing of ceramic units at Cenol and Telha Forte Ceramic Factories during the monitoring period. The weights were reviewed, and the corresponding records and documentation have been provided as supporting evidence to ensure transparency and traceability of the values applied. For units with lower production volumes, such as “Telha Portuguesa”, “Tijolo 21 furos”, “19x19”, and “Tijolo 24 furos”, weighing was carried out at the time of production, and the results were recorded in the monitoring spreadsheets by the ceramic factory personnel. Since these measurements were performed after the firing process, the weights of fired ceramic units were consistently applied to all other pieces to maintain uniformity. This represents a conservative approach.

C) – Values were adjusted as per Telha Forte monitoring parameter spreadsheet 2023

- Values were adjusted as per Telha Forte monitoring parameter spreadsheet 2024

- Values were reviewed and adjusted as per Telha Forte monitoring parameter spreadsheet 2025

D) – Cells AF27 to AI27 were adjusted to include Df,m calculation

- Cells J26, J28 to J30 were adjusted accordingly to provide consistence.

- Print screens showing the distances between Telha Forte Ceramic and its biomass suppliers were submitted as evidence. The distance was calculated based on the supplier's municipality, which is the available information.

Documents provided

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CAR02 > A) > VCS PD_Calculation_Cenol and Telha Forte_v.8

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CAR02 > B)

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CAR02 > C)

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CAR02 > D)

Assessment 1:

Date: 17/10/2025

Regarding the spreadsheet “VCS MR Calculation Project ID 54 01Jan2022-31May2025_v2”, the evaluation below was performed by the verification team:

A) “9th period - VCUs Calculations” tab:

- The value of the cell D149 is consistent with the cell F147;
- Now it is clear the consistence of the vales of the cells D150, D151, D152 with the spreadsheet “VCS PD_Calculation_Cenol and Telha Forte_v.8” - ok;
- BEy calculations from 2023 to 2025 were dully revised in the spreadsheet to apply the respective $f_{NRB,y}$ values for each monitoring year - ok.

B) “Production” tab

- The value in cell G21 was duly revised - ok;
- It was duly explained how the weights of the ceramic pieces for Cenol and Telha Forte were measured through direct physical weighing. The verification team has duly checked the correspondence evidence - ok.

C) “Renewable Biomass” tab

Telha Forte:

- 2023: the provided evidence of March, April, November and December was duly revised and aligned with the monitoring spreadsheet. However, the data of January and June aren't still consistent with the monitoring spreadsheet – pending;
- 2024: the provided evidence of November was duly revised and aligned with the monitoring spreadsheet - ok;
- 2025: the provided evidence of January was duly revised and aligned with the monitoring spreadsheet. However, the data of May of 2025 (sawdust), April and May (açai pits) aren't still consistent with the monitoring spreadsheet – pending

D) “Project Emissions” tab:

- Cells AF27 to AI27 were duly revised – ok;
- Cells J26, J28 to J30 were dully revised – ok;
- The verification team reviewed the additional evidence and confirmed that the screenshot provided includes clear identification of both the origin and destination points, as well as the total travel distance. The updated Df,m (km) values in the spreadsheet are consistent with the distances shown on Google Maps. The information now allows independent confirmation of the transport routes and supports

the accuracy of the monitored parameter Df,m in accordance with the applied methodology's monitoring requirements - ok.

Therefore, this CAR remains open for item "C" above.

Answer 2 – Project participant response (2nd Round)

Date: 21/11/2025

C) – 2023: The January data for Telha Forte were reviewed and the inconsistency identified between the evidence (Cer Telha Forte planilha de monitoramento 2023_v3) and the monitoring calculation spreadsheet (VCS MR Calculation Project ID 54 01Jan2022-31May2025_v3) was due to a spreadsheet error in cells G390 and G394, which were not formatted as numeric values and, therefore, those values were not included in the sum.

With the error uncorrected, the total sawdust consumption for January 2023 appears as 8,360.57 m³. After converting the values in cells G390 and G394 to numeric format, they were correctly incorporated into the total, resulting in 8,470.51 m³, which is aligned with the monitoring calculation spreadsheet v.3 cell M17. A screenshot demonstrating the issue was submitted as evidence ("TelhaForte_January23-Sawdust_Error"), and the corrected file (Cer Telha Forte planilha de monitoramento 2023_v3) was provided with rows 390 and 394 highlighted in yellow for traceability.

For June 2023, no inconsistencies were identified between the monitoring spreadsheet and the calculation spreadsheet. The evidence ("Cer Telha Forte planilha de monitoramento 2023_v3") shows 6,671.63 m³ of sawdust and 407.55 m³ of açai pits consumption for June 2023, which match the values in cells M22 and P22, respectively, of the calculation spreadsheet (VCS MR Calculation Project ID 54 01Jan2022-31May2025_v3). Additionally, a screenshot demonstrating the corresponding sum was submitted as evidence to facilitate traceability. Therefore, no corrections were required.

- 2025: The April and May 2025 data for both açai and sawdust were reviewed, and no inconsistencies were identified between the monitoring spreadsheet and the calculation spreadsheet.

May 2025: The evidence shows 5,046.0 m³ of sawdust and 471.9 m³ of açai pits, matching cells M47 and P47, respectively, of the calculation spreadsheet (VCS MR Calculation Project ID 54 01Jan2022-31May2025_v3).

April 2025: likewise, the evidence presents a value of 420.4 m³ of açai pits, which are consistent with cell P46 of the monitoring calculation spreadsheet (VCS MR Calculation Project ID 54 01Jan2022-31May2025_v3).

Therefore, no updates were required for these months.

Documents provided

Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 03 > Evidence > CAR02 > C)

Assessment 2 – Verification team assessment (2nd Round)

Date: 02/12/2025

C. "Renewable Biomass" tab

Telha Forte

2023: the data of January and June has been duly revised and aligned with the monitoring spreadsheet;

2025: The April and May 2025 data are consistent with the the monitoring spreadsheet.

Therefore, this CAR is closed.

CAR	03	Potential impact on the statement: high
Description		11/08/2025
Telha Forte: In a population of 1180 production data (Telha plan, Tijolo, Telha Romana), the maximum of errors founded to be acceptable according to the “Simple Random Sampling” (http://www.raosoft.com) is 10. Despite of this, in the on-site audit was founded 16 errors.		
Answer 1:		Date: 19/09/2025
The production data were cross-checked against the physical production spreadsheets, and the identified errors were corrected. As evidence, the physical production spreadsheet was submitted together with the monitoring spreadsheets, in which the adjusted data have been highlighted in blue for transparency.		
Documents provided		
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Version 02 > Evidence > CAR03		
Assessment 1:		Date: 17/10/2025
A new sample (population of 290 data) was taken for the revised Telha Forte production data (ceramic units). No error was found in this new sample, so the new ceramic production data was duly revised by the PP.		
Therefore, this CAR is closed.		

CAR	04	Potential impact on the statement: medium
Description		Date: 16/12/2025
<u>MR, sections:</u> 1.11.3: it is not clear that the project does not affect the emissions footprint of products (the ceramics themselves and any construction built with those ceramic items). It is not clear that the requirements from paragraph 3.24.7 of the VCS Standard v4.7 were followed; 1.12 – item 2 – SDG 8: the assessment is not clear, as during the current MP it is said that 2 actions were carried out but they are not included as improvements of the project’s lifetime; 1.12 – item 4 – SDG 17: it is not clear the impact to the SDG as it refers to means for <i>implementation and revitalize the global partnership for sustainable development</i>, which is not clearly the actions listed at the section;		

4. 3.1: the description of “social aspects” at the end of the section is not related to the implementation of the project, to which refers the section;
5. 3.2.2: if the number of kilns is the same and it was just a restoration, there is no reason to consider this a deviation, even because it is part of regular maintenance of the PA. If so, the FAR assessment has to be changed;
6. 3.2.2: the proposed deviation (Updating the fNRB parameter) for the present MP is methodology deviation, rather than project description deviation, as it is a deviation related to the criteria and procedures for monitoring or measurement;
7. 4.2 – Df,m: the table presents the total distance during the years, which does not allow any assessment. The analysis has to be per provider;
8. 5.4: the explanation of the increase in the ERs is not totally plausible: 1. At other project, there was a decrease and it was said that it was because of COVID; 2. there is no plausible reason for an increase in Cenol and decrease in Telha Forte; 3. The problem of such increase is regarding the additionality of the project.
9. 5.4 - The ex-ante value 2025 is not correct (not traceable, as the calculation was not demonstrated). Moreover, the ex-ante fractioned tCO₂e of 2025 and total have to be rounded.
10. 4 - The lines with the total of **FR_{f,m}** are not consistent with the respective numbers of the same table– page 45.
11. Concerning the Origin of Renewable Biomass, it is stated in the MR that Sustainable Carbon is responsible for assessing if the biomasses used in the project are from renewable origin. However, further information is missing on how this assessment is made, as well as evidence to confirm that all biomasses provided by suppliers and used at the project activity are renewable and from legalized source(s).

Answer 1:

Date: 15/01/2026

1. The project activities positively affect the emissions footprint of the ceramic products, as they result in a reduction of the greenhouse gas emissions associated with their manufacturing process. By replacing non-renewable fuel with renewable biomass, the project reduces the carbon intensity of the ceramic products (tiles and bricks). To clarify this aspect, Section 1.11.3 of the MR version 05 has been updated.
In addition, in accordance with the requirements of paragraph 3.24.7 of the VCS Standard v4.7, a public statement has been published on the Cenol and Telha Forte Ceramics WhatsApp channel, which is the main communication channel of the ceramics, informing that carbon credits may be issued for the greenhouse gas emission reductions associated with ceramic products.
Evidence of this publication has been included in Appendix 3 of MR version 05 and is submitted together with this draft response as supporting documentation to demonstrate compliance with the VCS requirements.
2. The assessment under SDG 8 (Section 1.12, Row 4) was reviewed in Monitoring Report Version 05. The text now includes the two improvements implemented during the monitoring period within the total improvements implemented over the project’s lifetime.
3. The reference to SDG 17 (Row 6) was excluded from Table 2 in Section 1.12 of Monitoring Report Version 05, as the actions previously associated with this SDG do not directly relate to the means of implementation or the revitalization of global partnerships for sustainable development. These actions were therefore retained in the narrative text below the table, which consolidates the social and community initiatives implemented by Cerâmicas Cenol and Telha Forte.

4. The paragraph related to social aspects was excluded from Section 3.1 (Implementation Status of the Project Activity) in Monitoring Report Version 05, as it was not directly related to the implementation of the project.
5. The deviation related to the restoration of the kilns in Section 3.2.2 (Project Description Deviations) was excluded from Monitoring Report Version 05, as these activities were confirmed to be part of regular restoration and maintenance activities, with no changes to the number of kilns. Consequently, the Financial Barrier assessment related to this deviation was also excluded from the calculation spreadsheet (Version 4). Therefore, the FAR reassessment can be conducted by the auditors.
6. The updates to the fNRB parameter have been identified as methodology deviations and have now been incorporated into Section 3.2.1 (Methodology Deviations) of MR Version 05, as requested.
7. The parameter Df,m in Section 4.2 (Data and Parameters Monitored) was revised in Monitoring Report Version 05. The "Value Monitored" field was updated to present distances per provider.
8. The explanation for the increase in emission reductions has been clarified in the MR. The observed increase is primarily driven by higher-than-anticipated production levels at Cenol, while Telha Forte experienced a slight decrease, reflecting independent operational and market conditions at each facility.
Although both facilities are included under the same project, they operate independently, with their own management practices, workforce, client portfolios, and production planning. Therefore, opposite trends between Cenol and Telha Forte are plausible and consistent with their operational reality.
Comparisons with other projects, including references to COVID-related impacts, are not applicable, as each project and facility responds differently to external factors such as market demand, internal management decisions, and labor availability. Even within the same sector, similar impacts or trends are not required or expected.
Importantly, the increase in emission reductions does not affect the additionality of the project, which was assessed ex-ante in the Project Description and remains valid.
The emission reductions were calculated strictly in accordance with the approved methodology using monitored data, and no changes to baseline conditions or project design have occurred.
9. Regarding the ex-ante value for 2025, this value was calculated based on the Project Description (PD), Version 08, dated 20 June 2018, which estimates annual greenhouse gas emission reductions of 31,878 tCO₂e.

As the monitoring period for 2025 covers only five months (January to May), the ex-ante value was calculated on a pro-rata basis, as follows:

- $31,878 \text{ tCO}_2\text{e} \div 12 \text{ months} \times 5 \text{ months} = 13,282.5 \text{ tCO}_2\text{e}$.

This calculation has now been explicitly included and clarified in the Monitoring Report to ensure full traceability of the ex-ante value. In addition, the fractioned ex-ante value for 2025 has been rounded to 13,283 tCO₂e, and the corresponding total ex-ante value has been rounded to 108,917 tCO₂e, in accordance with the request. For transparency and traceability purposes, the detailed calculations have been included in the tab “9th period – VCUs Calculation” of the calculation spreadsheet (v.4) specifically in cells C167 to F183, demonstrating the ex-ante estimated reductions/removals, the achieved reductions/removals, and the percent difference.

10. The values of the parameter FR_{f,m} in Section 4.2 (page 45) of MR version 05 have been revised and adjusted to consistently reflect two decimal places across all entries. As a result, the total rows of FR_{f,m} are now consistent with the corresponding values presented in the same table in Monitoring Report version 05.
11. Sustainable Carbon monitors the biomass used by Cerâmicas Cenol and Telha Forte through structured Excel spreadsheets shared via Dropbox, which allow simultaneous access and continuous updating by the ceramic facilities. These spreadsheets constitute the primary monitoring and control tool for biomass use under the project. Each biomass delivery is individually recorded, including the delivery date, type of biomass, and volume received. Receipts are issued to document the total biomass delivered and the corresponding payments, ensuring traceability, transparency, and consistency. In addition, Sustainable Carbon periodically conducts site visits to the ceramic facilities to verify compliance with project requirements and monitoring procedures. Minor clarifications were introduced in Sections 4.2 Data and Parameters Monitored (Qrenbiomass) and 4.3 Monitoring Plan to improve clarity, without changing the monitoring approach, responsibilities, or methodological framework.

The assessment of the renewable origin of the biomass is based on the eligibility criteria defined in the PD. The PD lists the biomass types permitted under the project activity, among which sawdust and açai pits are explicitly included. During the current monitoring period, Cerâmicas Cenol and Telha Forte used exclusively these two biomass types, in full compliance with the PD, as confirmed during audits and site visits. Both materials are residual by-products from industrial and agricultural processes and are visually identifiable at the time of delivery and use. The ceramic facilities do not use any biomass types other than those listed in the PD.

This classification is supported by the definition established in item 5 of Annex 18 of the 23rd meeting of the Executive Board of the Clean Development Mechanism (CDM), which considers as renewable any biomass derived from industrial or municipal waste. Therefore, the biomass types used in the project are intrinsically renewable, as they are residues that would otherwise require disposal.

Regarding legal compliance, the use of biomass residues as fuel is consistent with Brazilian environmental regulations and the principles of environmentally sound residue management, promoting the recovery and beneficial use of residual materials. In addition, the biomass supply chain reflects the local reality of small-scale residue collection. Most suppliers are individual persons (CPF holders) who collect sawdust and açaí pits from sawmills or processing facilities and sell these residues to the ceramics. The ceramic facilities view this arrangement as an opportunity to provide an environmentally sound destination for residual materials that, under alternative scenarios, could be disposed of in landfills or unmanaged dumping sites.

Compliance is ensured through supplier identification, documentation of deliveries and payments, and continuous monitoring of biomass inputs. Based on these controls, audits, and site visits, no evidence of the use of non-renewable or illegally sourced biomass was identified during the monitoring period.

Documents provided

1. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > Evidence > CAR04_1 > “Statement_Cenol_TelhaForte”
2. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > VCS MR Project ID 54 01Jan2022-31May2025_v5
3. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > VCS MR Project ID 54 01Jan2022-31May2025_v5
4. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > VCS MR Project ID 54 01Jan2022-31May2025_v5
5. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > VCS MR Project ID 54 01Jan2022-31May2025_v5
6. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > VCS MR Project ID 54 01Jan2022-31May2025_v5
7. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > VCS MR Project ID 54 01Jan2022-31May2025_v5
8. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > VCS MR Project ID 54 01Jan2022-31May2025_v5
9. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > VCS MR Project ID 54 01Jan2022-31May2025_v5
Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > VCS MR Calculation Project ID 54 01Jan2022-31May2025_v4
10. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > VCS MR Project ID 54 01Jan2022-31May2025_v5

11. Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 05 > Evidence > CAR04_11 > Annex18_EB23_CDM

Assessment 1:

Date: 12/02/2026

- 1) The PP updated Section 1.11.3 Supply Chain (Scope 3) of the Monitoring Report (Version 05) to include all 3 questions as guided by the VCS template. A public statement on Cerâmica Telha Norte e Cenol's WhatsApp channel (+55 91 99160-5009) announces that carbon credits may be issued for the greenhouse gas emission reductions associated with Telha Norte e Cenol's ceramic products. Screenshots are in Appendix 3. The verification team confirmed the statement's public availability, meeting paragraph 3.24.7 of the VCS Standard v4.7. Closed.
- 2) The PP has revised Section 1.12 to address the identified inconsistencies. The number of contributions over project lifetime reported under SDG 8 has been duly corrected from 5 to 7 to including the actions effectively implemented and described in the actual monitoring period. Based on the revised information, the assessment under SDG 8 is now consistent and clearly justified. Closed.
- 3) References to SDG 17 were removed from Table 1 in Section 1.12 since the actions didn't clearly contribute to SDG 17's goals. These actions are now described in the narrative section as general social initiatives, not formal SDG 17 contributions. The revision solves inconsistencies related to SDG contributions. Closed.
- 4) The Section 3.1 in Monitoring Report Version 05 was duly revised removing the paragraph about social aspects since it wasn't directly related to project implementation. The revision guarantees the consistency with the required content in the template. Closed.
- 5) The PP removed the deviation related to kiln restoration from Section 3.2.2 in Monitoring Report Version 05, as it was regular maintenance with no kiln number changes. The Financial Barrier assessment was also removed from the calculation spreadsheet. These changes align with VCS rules and were checked by the verification team. Closed.
- 6) The PP has transferred the fNRB deviation from Section 3.2.2 (Project Description Deviation) to Section 3.2.1 (Methodology Deviations) as it is a deviation related to the criteria and procedures for monitoring or measurement. This revision align with VCS rules and was checked by the verification team. Closed.
- 7) The PP has duly revised Section 4.2 (Data and Parameters Monitored), Monitoring Report Version 05, inserting the distances per provider for the parameter Df,m. Closed.
- 8) The justification does not explain the increase of 25%, which is crucial for the PA. **Pending.**
- 9) The ex-ante value 2025 was duly revised and now is consistent with the calculation considering the proportional days of the period. Closed.
- 10) The sums (Total in tonnes) of the decimals were duly revised and now are consistent with the numbers of the table. Closed.
- 11) It was duly revised in Sections 4.2 and 4.3 of Monitoring Report, Version 05, that the PP tracks biomass used at Cerâmicas Cenol and Telha Forte via shared Excel spreadsheets. The evidence of the biomass origin was checked by the verification team through these documents: spreadsheets related to the records of biomass purchase from this monitoring period. In addition, the renewable origin was confirmed in the on-site visit.
The legal source of the providers was confirmed through the licenses of some biomass providers. It was also explained that most suppliers are individuals (CPF holders) collecting sawdust and açai pits from sawmills or processing facilities which is reasonable considering the type of the product and the economic situation of the region. Closed.

Therefore, this CAR remains open for item “8” above.

Answer 2:

Date: 20/02/2026

8) While the increase in production significantly contributed to the higher ERs observed, it is important to clarify that, in accordance with the applicable methodology, emission reductions are calculated based on the combined effect of monitored production, the consumption of non-renewable biomass per thousand ceramic units fired in year y (BFy), and the fraction of non-renewable biomass (fNRB). Therefore, production is an important factor, together with other key parameters that determine the final ERs.

First, regarding production levels, Cenol registered a 24% increase compared to the ex-ante estimate, while Telha Forte presented a 2% reduction. As ERs are directly linked to production volume, the significant increase at Cenol had a direct and positive impact on total ERs.

However, the impact of production on ERs must be assessed in combination with the baseline consumption of non-renewable biomass per thousand ceramic units fired (BFy). The BFy values differ between the two ceramics. Although Telha Forte represents a larger share of total production, its BFy is lower than that of Cenol. Since BFy determines the baseline emissions per thousand units fired, a lower BFy results in lower baseline emissions per unit of production.

This can be observed, for example, in the 2025 data: even with similar production volumes (slightly higher for Telha Forte), the baseline emissions associated with Telha Forte were lower due to its lower BFy. Conversely, Cenol, which has a higher BFy, generates higher baseline emissions per thousand units fired.

This structural difference explains why Cenol's production increase has a proportionally stronger effect on total baseline emissions and ERs. Even though Cenol accounts for approximately 35% of total production, its higher BFy means that any increase in its output generates a comparatively larger increase in total ERs.

In addition to production and BFy, another key parameter influencing the final ERs is fNRB. In the PD, the ex-ante fNRB value applied was 79.54%. In this MR, the monitored fNRB values were significantly higher: 94.20% (2022), 93.95% (2023), 94.25% (2024), and 94.25% (2025).

As ERs are directly proportional to fNRB, the application of higher monitored values leads to higher calculated emission reductions compared to the ex-ante estimate. The fNRB values applied are fully consistent with the requirements established under Tool 30 v1 and were applied strictly as described in the MR and in the calculation spreadsheet.

When the combined effect of (i) the 24% production increase at Cenol, (ii) the structural difference in BFy between the two ceramics, and (iii) the higher monitored fNRB values is taken into account, the approximately 25% increase in verified ERs is technically consistent with the methodological framework and expected under the monitored conditions.

It is also important to clarify that ERs are calculated on a consolidated basis for the entire project activity. Although the PD presents separate production estimates for Cenol and Telha Forte, ERs are calculated using aggregated monitored data, in accordance with the methodological requirements.

The verified results therefore reflect the actual monitored operational conditions and are technically consistent and fully compliant with the applicable methodological requirements, without implying any methodological change. This justification has been included in MR version 06, Section 5.4.

Documents provided

8) Auditorias Polo PA – 2025 > Cenol and Telha Forte Ceramics Switching Fuel Project - 9th Monitoring Period > Versão 06 > VCS MR Project ID 54 01Jan2022-31May2025_v6

Assessment 2:

Date: 24/02/2026

The combined effect of the 24% production increase at Cenol, fNRB approximately 14% larger than in PD, and the BFy of Cenol 3% higher than Telha Forte justifies the 25.75% increase in verified ERs, which is technically consistent with the methodological framework and expected under the monitored conditions. The section 5.4 of MR, version 06, was duly revised with this justification.

Therefore this CAR is closed.

Table 3: FARs from this verification.

No FAR was identified in this verification.

Table 4: FARs from the previous verification.

FAR	01	Potential impact on the statement: high
Description		18/03/2022
During the site visit carried out at Telha Forte Ceramic, it has been observed that two new Paulista Kilns are being installed which are not comprehended in the PDD description and have its start date estimated for the year 2022. Therefore, the impact in the additionality, applicability of methodology and baseline are to be carried out in the next verification.		
Answer 1:		Date: 19/09/2025
No new kilns were installed as mentioned in the description of this FAR; instead, four Paulista kilns were restored during the monitoring period. Since kiln restoration is part of regular maintenance, there's no need to analyze the impact on additionality, methodology applicability, or baseline.		
Documents provided		

Assessment 1:	Date: 17/10/2025
<u>No new kilns were installed as duly informed by the PP. Since restoration of four Paulista kilns is part of regular maintenance, it is not applicable to carry out the impact on additionality, methodology, or baseline.</u> <u>Therefore, this FAR is closed.</u>	

APPENDIX III: REFERENCES

No.	Title	References
1.	VCS rules / templates: - VCS Standard - VCS Program Guide - VCS Program Definitions - VCS Project Description Template - VCS Validation Report Template	V.5.0 V. 5.0 V. 5.0 V.4.4 V.4.4
2.	TOOL 12 - Project and leakage emissions from transportation of freight TOOL16 - Project and leakage emissions from biomass TOOL30 - Calculation of the fraction of non-renewable biomass	V. 1.1 V.4.0 V.1.0
3.	<u>Methodology:</u> AMS-I.E. - Switch from non-renewable biomass for thermal applications by the user	version 07.0
4.	VCS-PD (Registered)	Version 08 – 20/06/2018
5.	MR – draft	Version 01 – 27/06/2025 Version 02 – 19/09/2025 Version 03 – 21/11/2025 Version 04 – 05/12/2025 Version 05 – 15/01/2026 Version 06 – 20/02/2026
6.	MR final	Version 07 – 28/08/2026
7.	ER Spreadsheet – draft	Version 1 Version 2

		Version 3 Version 4
8.	ER Spreadsheet – final	Version 5
9.	Pictures taken during the virtual on-site inspection depicting the applied technology, biomass consumed, operational procedures.	29/07/2025
10.	<u>Biomass</u> Records of biomass purchase from this monitoring period.	2022-2025
11.	<u>Production</u> Records of production by type of ceramic devices from this monitoring period.	2022-2025
12.	<u>Licenses</u> Cenol Ceramic - Renovation protocol of Operation License # 011/2022 – Production of ceramic pieces – Municipality of São Miguel do Guamá. Environmental Secretariat - SEMMA - Renovation protocol SEI #48405.851239/2012-66/12/ of extraction activities, issued by National Mining Agency (ANM) - Dispense of water grant # DDO-2025/000229-S issued by Environment and Sustainability Secretariat from State of Para – SEMAS/PA. - Pisciculture License # 010/2022 Issued by Municipality of São Miguel do Guamá. Environmental Secretariat Telha Forte Ceramic - Renovation protocol of Operation License # 032/2023 – Production of ceramic pieces – Municipality of São Miguel do Guamá. Environmental Secretariat - SEMMA - Dispense of water grant # 3034/2021 issued by Environment and Sustainability Secretariat from State of Para – SEMAS/PA.	14/03/2025 08/10/2024 Expire date: 25/02/2035 Expire date: 07/02/2026 08/05/2024 Expire date: 03/01/2026
13.	<u>Licenses of biomass providers</u> - Operational license #193/2022 of Rio Negro Ind Comercio e Exportação Eireli - ME – Sawdust provider, issued by Santa Belém Cityhall. - Operational license # 022/2025 of Wersan – Ind Com E Export de Madeiras Ltda – Sawdust provider issued by Belém Cityhall	Expire dates: 28/06/2026 18/02/2029

14.	<u>Parameter BF_y:</u> Registered VCS PD.	Version 08 – 20/06/2018
15.	<u>Information related to leakage</u> Imazon Institute – information provided that 25% of forest residues are either burned or rubble Technical article: Discarding and final destination of açaí in the Oriental Amazon – Brazil, written by Miranda, L, where it is stated that 53% of forest residues have incorrect disposal and destination Annual production of açaí in Pará	https://imazon.org.br/a-atividade-madeireira-na-amazonia-brasileira-producao-receita-e-mercados/amp/ https://www.scielo.br/j/asoc/a/xLtkfCv9jZpzvYzhBwsMwDv/?format=html https://www.sedap.pa.gov.br/boletim-cvis
16.	<u>SDGs:</u> a) SDG 2: pictures and receipts of basket donations; b) SDG 3: pictures, declaration, attendance list, control list spreadsheet – vaccination campaign; c) SDG 7 – control list spreadsheet of the amount of native wood from deforestation displaced by project activity (hectares); d) SDG 8 – pictures of bathroom renovation; e) SDG 13 - Verification Reports;	a) 2022 b) 2023 c) 2022-2025 d) - e) 2022-2025
17.	<u>Internal records:</u> - Records of purchase of sawdust; - Records of purchase of açaí pits; - Report of daily production of ceramic device; - Records of average weight of the fired ceramic units; - Records and receipts of Personal Protective Equipment (PPE) provided to workers; - Evidence provided of the employment relationship of several employees through the Brazilian Consolidation of Labor Laws (CLT) framework;	2022-2025
18.	<u>Evidences of calculation of parameter f_{NFB} in accordance with TOOL30 v.1</u> 1. Official statistics of total annual consumption of wood issued by Brazilian Geographic and Statistic Institute (Instituto Brasileiro de Geografia e Estatística - IBGE) - "Extração vegetal e Silvicultura" 2021-2024.	https://cidades.ibge.gov.br/brasil/pesquisa/16/12705?ano=2021 https://cidades.ibge.gov.br/brasil/pesquisa/16/12705?ano=2022

		https://cidades.ibge.gov.br/brasil/pesquisa/16/12705?ano=2023 https://cidades.ibge.gov.br/brasil/pesquisa/16/12705?ano=2024 Last visit: December/2025.
	2. Specific gravity of wood: Global wood density database.	Global wood density database.
	3. Values of MAI (tC/ha/y) - Mean Annual Increment of woody biomass: According to Brazilian DNA source, Third National Communication of Brazil to the United Nations Framework Convention on Climate. Volume III.	https://antigo.mctic.gov.br/mctic/export/sites/institucional/ciencia/SEPED/clima/arquivos/Comunicacoes_Nacionais/TCN_port/TCN_Volume_3.pdf Page 292. Last visit: December/2025.
	4. Carbon Ratio: Carbon Ratio of 47%. According to Brazilian DNA source, Third National Communication of Brazil to the United Nations Framework Convention on Climate Change. Volume III.	https://antigo.mctic.gov.br/mctic/export/sites/institucional/ciencia/SEPED/clima/arquivos/Comunicacoes_Nacionais/TCN_port/TCN_Volume_3.pdf Page 240. Last visit: December/2025.
	5. Forest areas – MAPA - Ministério da Agricultura, Pecuária e Abastecimento.	https://www.gov.br/forestal/pt-br/centrais-de-conteudo/publicacoes/publicacoes-diversas/Brazilian_Forests_2019_Ingles.pdf

	6. Parameter $P_{forest,i}$: a. Protected areas in conservation units - 250,209,200 ha - According to Cadastro Nacional de Unidades de Conservação (CNUC). b. Permanent Preservation Areas (Áreas de Preservação Permanente - APP) - 56,800,000 ha - According to Food and Agriculture Organization - FAO. Corresponds to extent of non-accessible area in private properties. c. Not designated public federal forests - 42,383,431 ha. d. Not designated public estadual forests - 22,187,596 ha e. Indigenous Lands - 114,883,420.2994 ha "Geoprocessamento e Mapas". (total indigenous land disconsidering delimited areas, because the latter has not been analysed by the Brazilian Justice Ministry, and therefore, have not been created and do not have their boundaries specified yet). According to MAPA - Ministério da Agricultura, Pecuária e Abastecimento. <u>Additional evidence provided considering Pará State (PA) after PRR from Verra:</u> - Parameter $F_{forest,i}$: MapBiomass land-cover data, available at: https://plataforma.brasil.mapbiomas.org/. Values are: - o 2022: 91,512,334 ha, source: https://plataforma.brasil.mapbiomas.org/coverage/cover	Page 30, table 2. Last visit: December/2025. a. https://repositorio.unb.br/bitstream/10482/37802/1/2019_FernandoAlmeidaCosta.pdf Page 46 Last visit: December/2025. b. http://www.fao.org/3/a-az172e.pdf Page 72. Last visit: December/2025. c.d. https://www.gov.br/agricultura/pt-br/assuntos/servico-florestal-brasileiro/cadastro-nacional-de-florestas-publicas/cadastro-nacional-de-florestas-publicas-atualizacao-2018> Last visit: December/2025. e. https://www.gov.br/florestal/pt-br/centrais-de-conteudo/publicacoes/publicacoes-diversas/Brazilian_Forests_2019_Ingles.pdf Page 101. Last visit: December/2025. 2022
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	<u>age coverage 10m?t[regionKey]=brazil&t[ids][]=1-3-2&t[divisionCategoryId]=95&t[id]=9&t[themeKey]=coverage&t[subthemeKey]=coverage coverage 10m&t[pixelValues][]=3&t[pixelValues][]=4&t[pixelValues][]=5&t[pixelValues][]=6&t[pixelValues][]=49&t[pixelValues][]=11&t[pixelValues][]=12&t[pixelValues][]=29&t[pixelValues][]=32&t[pixelValues][]=50&t[pixelValues][]=9&t[pixelValues][]=15&t[pixelValues][]=19&t[pixelValues][]=36&t[pixelValues][]=21&t[pixelValues][]=23&t[pixelValues][]=24&t[pixelValues][]=25&t[pixelValues][]=30&t[pixelValues][]=75&t[pixelValues][]=31&t[pixelValues][]=33&t[pixelValues][]=27&t[year]=2022&t[legendKey]=coverage coverage 10m mapbiomas coverage 10m. Accessed on: 07/07/2026;</u> ○ 2023: 91,171,086 ha, source: <u>https://plataforma.brasil.mapbiomas.org/coverage/coverage coverage 10m?t[regionKey]=brazil&t[ids][]=1-3-2&t[divisionCategoryId]=95&t[id]=9&t[themeKey]=coverage&t[subthemeKey]=coverage coverage 10m&t[pixelValues][]=3&t[pixelValues][]=4&t[pixelValues][]=5&t[pixelValues][]=6&t[pixelValues][]=49&t[pixelValues][]=11&t[pixelValues][]=12&t[pixelValues][]=29&t[pixelValues][]=32&t[pixelValues][]=50&t[pixelValues][]=9&t[pixelValues][]=15&t[pixelValues][]=19&t[pixelValues][]=36&t[pixelValues][]=21&t[pixelValues][]=23&t[pixelValues][]=24&t[pixelValues][]=25&t[pixelValues][]=30&t[pixelValues][]=75&t[pixelValues][]=31&t[pixelValues][]=33&t[pixelValues][]=27&t[year]=2023&t[legendKey]=coverage coverage 10m mapbiomas coverage 10m. Accessed on: 07/07/2026;</u> ○ 2024 and 2025: 90,845,583 ha, source: <u>https://plataforma.brasil.mapbiomas.org/coverage/coverage coverage 10m?t[regionKey]=brazil&t[ids][]=1-3-2&t[divisionCategoryId]=95&t[id]=9&t[themeKey]=coverage&t[subthemeKey]=coverage coverage 10m&t[pixelValues][]=3&t[pixelValues][]=4&t[pixelValues][]=5&t[pixelValues][]=6&t[pixelValues][]=49&t[pixelValues][]=11&t[pixelValues][]=12&t[pixelValues][]=29&t[pixelValues][]=32&t[pixelValues][]=50&t[pixelValues][]=9&t[pixelValues][]=15&t[pixelValues][]=19&t[pixelValues][]=36&t[pixelValues][]=21&t[pixelValues][]=23&t[pixelValues][]=24&t[pixelValues][]=25&t[pixelValues][]=30&t[pixelValues][]=75&t[pixelValues][]=31&t[pixelValues][]=33&t[pixelValues][]=27&t[year]=2024&t[legendKey]=coverage coverage 10m mapbiomas coverage 10m. Accessed on: 07/07/2026. For 2025, the 2024 official dataset was used as a proxy because official 2025 data were not available.</u> - Parameter P_{forest,i}: ○ Protected areas in conservation units: 42,128,527 ha (2022-2025), source: <u>https://uc.socioambiental.org/mapa;</u> ○ Not Designated Public Forests (Federal and State):	2023 2024-2025 2022-2025
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	a) 2022: 7,764,873 ha, available at: https://www.gov.br/florestal/pt-br/assuntos/cadastro-nacional-de-florestas-publicas/cadastro-nacional-de-florestas-publicas-atualizacao-2022/cnfp_2022_compressed.pdf/@display-file/file b) 2023: 7,764,873 ha, available at: https://www.gov.br/florestal/pt-br/assuntos/cadastro-nacional-de-florestas-publicas/cadastro-nacional-de-florestas-publicas-atualizacao-2022/cnfp_2022_compressed.pdf/@display-file/file c) 2024: 7,482,721 ha, available at: https://www.gov.br/florestal/pt-br/assuntos/cadastro-nacional-de-florestas-publicas/cadastro-nacional-de-florestas-publicas-atualizacao-2024/Layout_CNFP_2024_retificado.pdf/@display-file/file d) 2025: 7,161,927 ha, available at: https://www.gov.br/florestal/pt-br/assuntos/cadastro-nacional-de-florestas-publicas/cadastro-nacional-de-florestas-publicas-atualizacao-2025/layout_cnfp_2025-defeso.pdf/@display-file/file - o Indigenous Lands: 35,314,005 ha (2022-2025), source: https://terrasindigenas.org.br/pt-br/brasil - o Quilombola Lands: 1,286,124 ha (2022-2025), source: https://amazoniaquilombola.org.br/#painel - o Permanent Preservation Areas (APPs): 1,636,227 ha (2022), 1,959,481 ha (2023), 2,378,989 ha (2024) and 2,852,148 ha (2025). Source: https://painel.car.gov.br/car/sense/app/724964d6-be54-40cd-a892-ef9bc03fa411/sheet/d0334df5-8263-4fde-943a-7ef9aaad4fa3/state/analysis	2022 2023 2024 2025 2022-2025 2022-2025 2022-2025
19.	VCS	https://verra.org/
20.	List of GHG programmes checked 1. CDM - https://cdm.unfccc.int/ 2. Gold Standard - https://registry.goldstandard.org/projects?q=&page=1 3. Cercarbono - https://www.ecoregistry.io/projects 4. GCC - https://projects.globalcarboncouncil.com/ 5. BioCarbon - https://biocarbonregistry.com/en/	<u>CDM</u> <u>GS</u> <u>Cercarbono</u> <u>GCC</u> <u>BioCarbon</u>
21.	VCS Verification Report_ID 54_MP 01/01/2021 to 31/12/2021	V. 02 – 21/12/2022
22.	Declaration of Human Rights Compliance	24/06/2025

23.	Evidence on how monitoring results (i.e: SDG actions, monitored parameters) were communicated to the stakeholders: - Minutes of the Consultation with Stakeholders promoted by the Ceramics companies (Barbosa, Cenol, Telha Forte, Menegalli and Kamiranga), dated 20/03/2015. - Attendance list, dated 20/03/2015. - News: Carbon Credit Project brings together businesspeople from Guamá for a CONSULTATION WITH STAKEHOLDERS (/article/see/projeto-decredito-de-carbono-reune-empresariosguamaenses-para-consulta-aosstakeholders#content), dated 21/03/2015. - Cenol and Telha Forte Project Booklet (2024) detailing project results, monitoring data, SDG contributions, and communication channels. - Screenshot of WhatsApp group communications, confirming stakeholder engagement	20/03/2015 20/03/2015 21/03/2015 2024 30/06/2025
24.	Photos and video show that ashes are reused as fertilizer.	2025
25.	Supply Chain (Scope 3) Emissions: Files: "Statement_Cenol_TelhaForte". WhatsApp conversation channel (phone number: +55 91 99160-5009).	2026
26.	Annex 18 of the 23 rd CDM Executive Board meeting, "Definition of Renewable Biomass".	2006
27.	<u>Project Emissions:</u> Transport routes screenshots with origin and destination points and distances shown on Google Maps.	-

APPENDIX IV: COMPETENCE

<u>Statement of Competence</u>	
Appointment authorized in accordance with Management System of VERIFIT SAS*	
Name	CAMILA KAMIMURA
Education	Bachelor's degree in Environmental Engineering
<u>Roles</u>	
Team Leader	Yes
Validator / Verifier	Yes
Local Expert	Brazil
Technical Area	1.2
Financial Expert	No
Technical Reviewer	Yes
* Valid until 13/01/2028	
Reviewed by Marcela Kimura – 28/07/2025	Approved by Sergio Cruz – 28/07/2025

<u>Statement of Competence</u>	
Appointment authorized in accordance with Management System of VERIFIT SAS*	
Name	DAVID FREIRE DA COSTA
Education	Bachelor's degree in Chemical Engineering; Master's degree in Energy
<u>Roles</u>	
Team Leader	Yes
Validator / Verifier	Yes
Local Expert	Brazil; Honduras
Technical Area	1.1; 1.2; 13.2
Financial Expert	No
Technical Reviewer	Yes
* Valid until 25/10/2027	
Reviewed by Marcela Kimura – 25/10/2024	Approved by Sergio Cruz – 25/10/2024

Statement of Competence	
Appointment authorized in accordance with Management System of VERIFIT SAS*	
Name	SERGIO CRUZ
Education	Bachelor's degree in Law; Post Graduation in Environmental Strategic Series
Roles	
Team Leader	Yes
Validator / Verifier	Yes
Local Expert	Brazil; Argentina; Chile; Colombia; El Salvador; Guatemala; Honduras; Mexico; Peru
Technical Area	1.1; 1.2; 3.1; 7.1; 13.1
Financial Expert	Yes
Technical Reviewer	Yes
* Valid until 18/07/2026	
Reviewed by Camila Kamimura – 06/06/2024	Approved by Ricardo Lopes – 06/06/2024

APPENDIX V: ABBREVIATIONS

Abbreviations	Full texts
BE	Baseline Emission
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CL	Clarification Request
DIA	Environmental Impact Declaration
DOE	Designated Operational Entity
ER	Emission Reduction
Verifit	Verifit SAS
FAR	Forward Action Request
GHG	Greenhouse gas(es)
MP	Monitoring Plan
MR	Monitoring Report
PA	Project Activity
PBA	Environmental Basic Project
PE	Project Emission
PP	Project Participant
QA/QC	Quality Assurance / Quality Control
SDG	United Nations' Sustainable Development Goals
SEMMA	Municipal Department of the Environment
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCS-PD	VCS – Project Description
VCU	Verified Carbon Unit
VVB	Validation and Verification Body
XLS	Emission Reduction Calculation Spread Sheet