



VCS+SOCIALCARBON VERIFICATION REPORT TEMPLATE



CENOL AND TELHA FORTE CERAMICS SWITCHING FUEL PROJECT



Document Prepared by By RINA Services S.p.A. (RINA)

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Summary:

RINA Services S.p.A. (RINA), commissioned by Sustainable Carbon – Projetos Ambientais Ltda is verifying the greenhouse gas emission reductions reported for the project activity “Cenol and Telha Forte Ceramics Switching Fuel Project” in Brazil, VCS project ID 54, for the period 01/11/2017 to 31/12/2020. The verification includes confirming the implementation of the monitoring plan of the VCS PD (Project ID 54) and the application of the monitoring methodology as per AMS-I.E.: Switch from

Non-Renewable Biomass for Thermal Applications by the User – Version 07, of 22/07/2016. A remote site visit (via video conference) was conducted to verify the data submitted in the monitoring report. The project activity is the project of Cenol and Telha Forte Ceramics, which are two ceramic companies located in São Miguel do Guamá municipality, in the State of Pará, north of Brazil. Both ceramic companies produce structural ceramic pieces as bricks, mainly for the regional market in Belém and for the northeast region of the State.

The main goal of this project activity is to minimize the negative impacts of the deforestation of the Amazon biome by discouraging the exploration of the area. This fuel switching project is reducing the greenhouse gas (GHG) emissions through the substitution of native wood for renewable biomasses to generate thermal energy, considering that the GHG emissions generated from native wood combustion were not compensated by replanting. An opposite scenario occurs with the renewable biomasses employed in this project activity, which have carbon neutral lifecycle, generate thermal energy without stimulating deforestation and uses abundant renewable biomass.

The objective of the verification is to have an independent review ex post determination of the monitored reductions in GHG emission reductions, Verification was conducted using RINA procedures in line with the requirements specified in the VCS Version 4.0 Requirements, CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques. The verification consisted of desk review, on-site assessment (remote) and the resolution of outstanding issues and the issuance of the final verification report and certification. The objective of the SCR verification is to have an independent evaluation of a specific project activity by a certifying entity against the requirements of the Social Carbon Standard and Social Carbon Standard indicators, on the basis of the SCS report. In particular, the social and environmental indicators are verified in order to confirm that the impacts arising from a carbon offset project for the six resources of the methodology (Social, Human, Financial, Natural, Biodiversity and Carbon), as documented, is sound and reasonable and meets the identified criteria. The verification of the SCS report is as a complementary standard for co-benefits and it does not set its own criteria regarding the project type, location, and size, crediting period or baseline and monitoring methodologies; it covers only criteria of social and environmental impact of the project but not for emission reduction itself.

The verification consisted of the following three phases

- Document review;
- Remote On-site assessment including Interviews and Site Inspections, via videoconference;
- Resolution of Any Material Discrepancy and the issuance of the final verification report and certification.

The following sections outline each step in more detail.

The verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable VCS / CDM requirements in order to be certified.

During this verification 3 Clarification Requests (CRs) and 5 CAR (Corrective Actions) were identified related to the monitoring, implementation or operations of the proposed VCS project activity (Monitoring Report version 1.0 of 27/08/2021) in relation to all relevant VCS requirements v 4.0 for the project activity and the applied baseline and monitoring methodology; these findings have been discussed in appendix B of this report. During this SCR verification, 5 Clarification Requests (CRs) and 2 CAR (Corrective Actions) and 1 FAR (Forward Action Request) were identified related to the monitoring, implementation or operations of the proposed social carbon project (Monitoring Report version 1.0 of 27/08/2021) in relation to all relevant SOCIALCARBON® STANDARD, version 5.0 of July 2013 and the applied Brazilian Red Ceramic factories Indicators, version 1.1 of 05/09/2013; these findings have been discussed in appendix B of this report.

In total were raised 8 CRs, 7 CARs and 1 FAR (VCS + SocialCarbon).

In conclusion, it is RINA's opinion that the project activity "Cenol and Telha Forte Ceramics Switching Fuel Project", in "Brazil", as described in the Monitoring Report version 05 of 09/05/2022, meets all relevant requirements for VCS activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology "AMS-I.E.: Switch from Non-Renewable Biomass for Thermal Applications by the User – Version 07, of 22/07/2016. Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/11/2017 to 31/12/2020 amount to 93,003 tCO₂e.

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1 INTRODUCTION

1.1 Objective

RINA is commissioned by “Sustainable Carbon – Projetos Ambientais Ltda” to perform an independent verification of its VCS project, “Cenol and Telha Forte Ceramics Switching Fuel Project” in Brazil, already registered under VCS with Project ID.54 for the reported GHG emission reductions for the given monitoring period 01/11/2017 to 31/12/2020. The VCS projects must undergo independent third party verification and certification of emission reductions as the basis for issuance of Voluntary Emission Reductions (VERs/VCUs).

The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The project activity has been implemented and operated as per the project description (PD) and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- Monitoring report and other supporting documents are complete;
- The data is recorded and stored as per the monitoring methodology and approved monitoring plan.
- To confirm that the monitoring system is implemented and fully functional to generate Voluntary Emission Reductions (VERs/VCUs) without any double counting, and

To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.

1.2 Scope and Criteria

The verification scope is:

- to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- to evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement;
- to verify that reported GHG emission data is sufficiently supported by evidence.

The project is assessed against the requirements of VCS version 4.0 and related rules and guidance and for the Social Carbon, the scope is to review the SCS Report against the SCS Methodology and SCS Indicators: Brazilian Red Ceramic factories Indicators, version 1.1 of 05/09/2013. RINA has, based on the recommendations in the latest version of CDM Validation and Verification Manual, and employed a rule-based approach (as criteria) in the

verification, focusing on the identification of significant reporting rules and the reliability of project monitoring.

Verification is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring

1.3 Level of Assurance

The draft final verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent RINA instructions, with reasonable level of assurance.

The verification team and the technical reviewers consist of the following personnel:

Role	Last Name	First Name	Country
Team Leader, Verifier, Technical Expert	Carvalho	Thaís	Brazil
Technical reviewer	Principe	Geisa	Brazil

1.4 Summary Description of the Project

The project activity is the project of Cenol and Telha Forte Ceramics, which are two ceramic companies located in São Miguel do Guamá municipality, in the State of Pará, north of Brazil. Both ceramic companies produce structural ceramic pieces as bricks, mainly for the regional market in Belém and for the northeast region of the State.

The main goal of this project activity is to minimize the negative impacts of the deforestation of the Amazon biome by discouraging the exploration of the area. This fuel switching project is reducing the greenhouse gas (GHG) emissions through the substitution of native wood for renewable biomasses to generate thermal energy, considering that the GHG emissions generated from native wood combustion were not compensated by replanting. An opposite scenario occurs with the renewable biomasses employed in this project activity, which have carbon neutral lifecycle, generate thermal energy without stimulating deforestation and uses abundant renewable biomass.

Project Participant(s)	Sustainable Carbon – Projetos Ambientais Ltda Cenol and Telha Forte Ceramics: Industrial Establishment: CenolCerâmica do Norte Ltda Industrial Establishment: Cerâmica Telha Forte Ltda
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Project Title	Cenol and Telha Forte Ceramics Switching Fuel Project	
Location of the project	Cenol and Telha Forte Ceramics Rodovia BR 010 – KM 1808 – Bairro Industrial São Miguel do Guamá - Pará, Brazil Postal Code: 68660-000 Geodetic Coordinates (SAD69): Cenol Ceramic: 1°32'12.06"S and 47°30'48.59"W Telha Forte Ceramic: 1°32'12.41"S and 47°30'48.65"W	
Methodology(ies)	AMS-I.E.: Switch from Non-Renewable Biomass for Thermal Applications by the User – Version 07, of 22/07/2016	
Sectoral Scope(s)	1	1.1
Registered PDD	version 8 of 20/06/2018 (registered for the second crediting period)/02/	
Starting date of the crediting period	01/03/2007 (On this date, the project began reducing or removing GHG emissions, i.e. the ceramic started using renewable biomass as fuel. At this date, the ceramic acquired the first mechanic burners), as defined in the registered VCS PD	
Project's crediting period	01/11/2017 to 31/10/2027 (Second crediting period)	
Project documentation link	VCS database: https://registry.verra.org/app/projectDetail/VCS/54	
Social Carbon Indicators	Brazilian Red Ceramic factories Indicators, version 1.1 of 05/09/2013	
Information about the social and environmental components of the project	Social Resource: indicators: 1. Diversity; 2. Community development; 3. Employee satisfaction surveys; Human Resource: 4. Additional employee benefits; 5. Health and safety practices; 6. Training and capacity building programs; Financial Resource: 7. Biomass supply; 8. Planning and control; 8. Planning and control; 9. Carbon credit investments; Natural Resource: 10. Environmental management; 11. Brazilian environmental legislation; 12. Voluntary environmental initiatives; Biodiversity/Technology Resource: 13. Technological advances to improve efficiency of the production process; 14. Technological advances to improve the general conditions of the working environment; 15. Product quality;	

	Carbon Resource: 16. Stakeholder consultation; 17. Green marketing; 18. Project performance
Social Carbon Year point	5
Social Carbon monitoring period	November 1st , 2017 to December 31th, 2020

2 VERIFICATION PROCESS

2.1 Method and Criteria

Verification was conducted using RINA procedures in line with the requirements specified in the VCS Requirements, i.e. VCS Program Guide, VCS Version 4.0 of 19/09/2019, and VCS Standard, VCS Version 4.1 of 22/04/2021. The GHG emission reductions are on the basis of the approved Baseline and monitoring methodology AMS-I.E.: Switch from Non-Renewable Biomass for Thermal Applications by the User – Version 07, of 22/07/2016.

The verification consisted of the following three phases

- Document review;
- Remote On-site assessment including Interviews and Site Inspections, via videoconference;
- Resolution of Any Material Discrepancy and the issuance of the final verification report and certification.

The following sections outline each step in more detail.

2.2 Document Review

The monitoring report (MR), version 1.0 of 27/08/2021 and subsequent versions/01/, the emission reduction calculations spreadsheet “VCUs Foz 2012 a 2020.xlsx” version 1 of 15/06/2021 and subsequent versions/03/, were assessed as part of the verification.

The following table lists the documentation that were reviewed during the verification

/01/	Sustainable Carbon – Projetos Ambientais Ltda: VCS monitoring report for the project activity “Cenol and Telha Forte Ceramics Switching Fuel Project”, version 1.0 of 27/08/2021, version 2 of 05/11/2021, version 3 of 14/01/2022, version 04 of 19/01/2019 and version 05 of 09/03/2022
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/02/	Sustainable Carbon – Projetos Ambientais Ltda.: VCS project description for project activity “Cenol and Telha Forte Ceramics Switching Fuel Project version 8 of 20/06/2018 (registered for the second crediting period);
/03/	Sustainable Carbon – Projetos Ambientais Ltda: Emission Reduction spreadsheet “VCS MR Calculation Cenol_Telha Forte_period_07_01 11 2017_31 07 2020_v.1.xls” version 1 ; VCS MR Calculation Cenol_Telha Forte_period_07_01 11 2017_31 07 2020_v.2.xls version 2; VCS MR Calculation Cenol_Telha Forte_period_07_01 11 2017_31 07 2020_v.3_revMH.xls version 3; VCS MR Calculation Cenol_Telha Forte_period_07_01 11 2017_31 07 2020_v.3_.xls (final version after VERRA review)
/04/	VCS: VCS Program Guide, VCS Version 4.0 of 19/09/2019
/05/	VCS: VCS Standard, VCS Version 4.1 of 22/04/2021
/06/	CDM Executive Board: Approved consolidated baseline and monitoring methodology AMS-I.E.: Switch from Non-Renewable Biomass for Thermal Applications by the User – Version 07, of 22/07/2016
/07/	Website: https://verra.org/project/rina-services-s-p-a/ VCS: List of sectoral scopes RINA S.p.A is accredited Language: English Retrieved on: 14/09/2021
/08/	Sustainable Carbon – Projetos Ambientais Ltda monitoring report for the period 01-May-2012 to 31-October-2017, dated 11/10/2018
/09/	Earthood Services Privated limited validation report VCS.VAL.18.108 for the second crediting period of the project “Cenol and Telha Forte Ceramics Switching Fuel Project”, dated 20/06/2018
/10/	Earthood Services Privated limited verification report VCS.VAL.18.108 for the “Cenol and Telha Forte Ceramis Switching Fuel Project”, monitoring period 01-May-2012 to 31-October-2017, dated 16/10/2018
/11/	CDM Executive Board: TOOL12 Methodological tool: Project and leakage emissions from transportation of freight Version 01.1.0
/12/	Biomass evidences: receipts for the monitoring period
/13/	Raw data control data spreadsheet: Cer Cenol planilha de monitoramento 2017.xls Cer Cenol planilha de monitoramento 2018.xls Cer Cenol planilha de monitoramento 2019.xls Cer Cenol planilha de monitoramento 2020.xls Cer Telha Forte planilha de monitoramento 2017.xls Cer Telha Forte planilha de monitoramento 2018.xls Cer Telha Forte planilha de monitoramento 2019.xls Cer Telha Forte planilha de monitoramento 2020.xls Raw data control spreadsheet -final version Cer Cenol planilha de monitoramento 2017_v.04.xls Cer Cenol planilha de monitoramento 2018_v.04.xls Cer Cenol planilha de monitoramento 2019_v.04.xls Cer Cenol planilha de monitoramento 2020_v.04.xls Cer Telha Forte planilha de monitoramento 2017_v.04.xls

	Cer Telha Forte planilha de monitoramento 2018_v.04.xls Cer Telha Forte planilha de monitoramento 2019_v.04.xls Cer Telha Forte planilha de monitoramento 2020_v.04.xls
/14/	Cenol and Telha Forte internal production control
/15/	TOOL 30: "Calculation of the fraction of non-renewable biomass" version 01.0

The following table lists the documentation that were reviewed during the verification

/1a/	Sustainable Carbon – Projetos Ambientais Ltda: SCS Report for project activity "Cenol and Telha Forte Ceramics Switching Fuel Project" version 1.0 of 27/08/2021; version 2 of 05/11/2021; version 3 of 14/01/2022; Version 4 of 19/01/2022
/2a/	Sustainable Carbon – Projetos Ambientais Ltda spreadsheet "SCR_Cenol e Telha Forte_Point05_v1.xls"; SCR_Cenol e Telha Forte_Point05_v2.xls; SCR_Cenol e Telha Forte_Point05_v3.xls; SCR_Cenol e Telha Forte_Point05_v4.xls
/3a/	SOCIALCARBON® STANDARD, version 5.0 of July 2013.
/4a/	Social Carbon Standard: Brazilian Red Ceramic factories Indicators, version 1.1 of 05/09/2013
/5a/	* Ministério do Trabalho e Relações do Emprego RAIS (Relação Anual de Informações Social- Anual Relation of Social Information) for the years 2017, 2018, 2019 and 2020 and Sustainable Carbon Spreadsheet "Controle_RAIS_Cenol e Telha Forte 2017-2020.xls"; "Controle_RAIS_Cenol e Telha Forte 2017-2020 v2.xls"; "Controle_RAIS_Cenol e Telha Forte 2017-2020 v3.xls" To confirm the indicator 1.Diversity. Information from the governments and PPs spreadsheet control to evaluate the indicator.
/6a/	* "Associação de Capoeira Raízes de Angola" and "Gente livre" signed declarations 30/03/2021 and 24/03/2021 respectively, confirming the donations from Telha Forte since 2014; (CARBONO DECLARAÇÕES E RECIBOS.pdf) * Church Santa Teresinha do Menino Jesus, ceramic donation receipt dated 05/07/2020 (2020 Comemoração Paróquia.jpeg) * Pictures and videos "Associação de Capoeira Raízes de Angola" * Supermarket receipt for the donation from Telha Forte (Cestas básicas doação.jpeg) and pictures (Cestas básicas.jpeg) Evidences to confirm the indicator 2. Community Development.
/7a/	Telha Forte Ceramic donation report from 2017 to 2020 "RELATORIO DE DOAÇÕES.pdf" * CENOL and Telha Forte : evidences for First shots of Tetanus, Influenza, Hepatitis e Yellow Fever were given to employees in 2019, with signed list (Vacinação Cenol.pdf; Vacinação funcionários.pdf) Evidences to confirm the indicator: 4. Additional employee benefits
/8a/	* Cenol minutes of meeting for CIPA 2019/2020, dated 03/06/2019 (Atas Cenol 2019.pdf) * Cenol CIPA election invitation 19/02/2020 and related documents for the process 2020/2021; (WhatsApp Image 2021-08-31 at 17.55.14; WhatsApp Image 2021-08-31 at 17.55.51; WhatsApp Image 2021-08-31 at 17.55.29; WhatsApp Image 2021-

	08-31 at 17.55.40.jpeg; WhatsApp Image 2021-08-31 at 17.56.04.jpeg; WhatsApp Image 2021-08-31 at 17.56.16.jpeg; WhatsApp Image 2021-08-31 at 17.56.25; WhatsApp Image 2021-08-31 at 17.56.50; WhatsApp Image 2021-08-31 at 17.57.03; WhatsApp Image 2021-08-31 at 17.57.26; WhatsApp Image 2021-08-31 at 17.57.38; WhatsApp Image 2021-08-31 at 17.58.53; WhatsApp Image 2021-08-31 at 17.59.35; WhatsApp Image 2021-08-31 at 18.00.02; WhatsApp Image 2021-08-31 at 18.00.20; WhatsApp Image 2021-08-31 at 18.00.36; CIPA 2019_2020) *training Certificates for the CIPA members 2019 (Certificado treinamento Março_2019) * Cenol Cipa election and related documents for the year 2018/2019 (CIPA 2018 (2).pdf) *Telha Forte election and related documents for the year 2018/2019 (CIPA 2018.pdf) *Telha Forte election and related documents for the year 2019/2020 (CIPA 2018_2019 .pdf; CIPA telha forte 2020.pdf) *Pictures of masks donation. COVID tests, (Doação de mascaras; Doação de máscaras.jpeg; Exame (3).jpeg; Exame (4).pdf; Exames.pdf) *Telha Forte firefighting training and notions about environmental risks in the Ceramic, dated 07/11/2019 (Palestras(1).pdf; *Telha Forte fire extinguisher receipt 19/12/2019 (Recarga extintores.pdf) Evidences to confirm the indicator: 5. Health and safety practices
/9a/	*Dr. Vitor José Gonçalves Dias PCMSO (Programa de Controle Médico de Saúde Ocupacional – Program of Medical Control and Occupation Health), for the Ceramics Cenol and Telha Forte -2017/2018 (PCMSO 2017-2018.pdf), 2018/2019 (PCSMO 2018 2019.pdf), 2019/2020 (PCSMO 2020.pdf) * Engenheiro Jorgina José Vidal Navegantes PPRA (Programa de Prevenção e Redução de Acidentes – Program for Prevention and Reduction of Accidents), for the Ceramics Cenol and Telha Forte -2017 (Laudo Técnico das condições de trabalho- PPRA 2017.pdf); 2017/2018 (PPRA 2018.pdf); Laudo Técnico das condições de trabalho-2018 (PPRA 2018 2019.pdf);); Laudo Técnico das condições de trabalho-2019/2020 (PPRA 2020.pdf) Evidences to confirm the indicator: 5. Health and safety practices
/10a/	Maintenance welding training certificate 17/01/2020 and Safety Course in Driving, Maintenance, and Operation of Loaders and Backhoes and their Implements training certificate 06/12/2019 (Cursos e Treinamentos.pdf) Evidences to confirm the indicator 6. Training and capacity building programs.
/11a/	Cenol -- Secretaria Municipal de Meio Ambiente (SEMMA) Operating License (LO): nº 46/2020, dated 02/12/2020 valid until 01/12/2024 (LICENÇAS.pdf) - Secretaria Municipal de Meio Ambiente Clay Extraction License: nº 02/2021, dated 14/04/2021 valid until 14/04/2023 (LICENÇAS.pdf)

	- Secretaria de Estado de Meio Ambiente (SEMAS) Water Grant: nº 2725/2019 the factory has a dispensation statement to water grant, dated 29/10/2019 valid until 21/06/2024 (LICENÇAS.pdf) - Secretaria Municipal de Meio Ambiente (SEMMA) Rural Activity License (LAR): nº 015/2019, dated 30/08/2019 valid until 30/08/2021 (LICENÇAS.pdf) - Prefeitura Municipal de São Miguel do Guamã- Secretaria de Finanças, operational permit (Alvará de Funcionamento) nº 13452, for the year 2021 (LICENÇAS.pdf) - IBAMA: Federal Technical Registry (CTF): Regular. Valid until 30/11/2021 (CTF CENOL.pdf) Telha Forte: - Secretaria Municipal de Meio Ambiente (SEMMA) Operating License (LO): nº 29/2021, dated 29/06/2021, valid until 28/06/2024 (LICENÇAS.pdf) - Secretaria de Estado de Meio Ambiente (SEMAS) Water Grant: nº 3034/2021 the factory has a dispensation statement to water grant, dated 04/01/2021 valid until 03/01/2026 (LICENÇAS.pdf) - Prefeitura Municipal de São Miguel do Guama- Secretaria de Finanças, operational permit (Alvará de Funcionamento) nº 5436, for the year 2021 (LICENÇAS.pdf) - IBAMA: Federal Technical Registry (CTF): Regular. Valid until 19/10/2021 (CTF TELHA.pdf) Evidences (licenses copy) to confirm the indicator 11. Brazilian environmental legislation
/12a/	Pictures of signs available at the ceramics for the conservation importance, selective collection baskets. (Cenol Desenvolvimento sustentável.jpeg; Coleta seletiva.jpeg; Placa conscientização arborização(2).jpeg; Placa conscientização arborização.jpeg; Telha Forte Desenvolvimento sustentável.jpeg) Evidences to confirm the indicator 12. Voluntary environmental initiatives
/13a/	Pictures of the walls promoting the social carbon Evidences to confirm the indicator 17. Green marketing
/14a/	Cenol and Telha Forte videos Evidences to confirm the indicators 10. Environmental management; 12. Voluntary environmental initiatives; 14. Technological advances to improve the general conditions of the working environment and 17. Green marketing
/15a/	Cenol and Telha forte Income control from the carbon credit sales “RELATORIO DE RECEBIMENTOS DE CRÉDITOS DE CARBONO.docx” Cenol and telha forte negative certificate of debts “Certidão negativa de débito Cenol.pdf” “Certidão negativa de débito Telha Forte.pdf” Evidences to confirm the indicators 8. Planning and control and 9. Carbon credit investments

/16a/	Telha Forte invoice for the acquisition of a Tractor, dated 06/02/2020 and Cenol invoice for the acquisition of crawler excavator, dated 20/08/2020 (MAQUINAS COMPRADAS COM CREDITO DE CARBONO (1).pdf) Evidences to confirm the indicator 9. Carbon credit investments
/17a/	Planilha Carbono Despesas e Investimentos Cenol e Telha Forte.xlsx, Relatório Carbono Despesas e Investimentos 11-2017 à 12-2020.docx Evidences to confirm the indicators 9. Carbon credit investments
/18a/	Pictures of the termometers intalled at the kilns (parameter 13) Evidences to confirm the indicator 13. Technological advances to improve efficiency of the production process

2.3 Interviews

	Date	Name	Organization	Topic
/a/	22/09/2021 24/09/2021	Yara Fernandes da Silva	Sustainable Carbon	Monitoring reports, VCUs calculation,
/b/	22/09/2021 24/09/2021	Julia Palhares	Sustainable Carbon	Monitoring reports, VCUs calculation,
/c/	22/09/2021 24/09/2021	Marta Machado*	Cenol and Telha Forte Ceramics	Data for the social carbon and VCS report, data register (production and biomass), including the six resources of the SOCIALCARBON methodology (Social, Human, Financial, Natural, Biodiversity and Carbon),
/d/	22/09/2021 24/09/2021	Rosangela** Siqueira	Cenol and Telha Forte Ceramics	Data for the social carbon and VCS report, data register (production and biomass), including the six resources of the SOCIALCARBON methodology (Social, Human, Financial, Natural, Biodiversity and Carbon),
/e/	24/09/2021	Marcos Antônio de Oliveira da Silva***	Telha Forte Ceramic	Project kilns installed, monitoring of production.
/f/	24/09/2021	Cesar Augusto Ramos Pereira***	Cenol Ceramic	Project kilns installed, monitoring of production

RINA has assessed the SOCIALCARBON indicator scores though documented evidences and interview with stakeholders described in the table above. Due to COVID pandemic the meetings

were conducted remotely through video conference, with video camera in real time. The virtual meetings, and check of support evidences, videos and pictures were used to assess the social and environmental indicators in order to confirm that the impacts arising from a carbon offset project for the six resources of the methodology (Social, Human, Financial, Natural, Biodiversity and Carbon) are correctly scored/described.

**Marta Machado is responsible for administrative activities related to the carbon project, such as the development of environmental and social initiatives, financial planning and control of carbon credit revenues as well as the destination for proceeds, also, is responsible for providing evidence and necessary documents to complete Social Carbon report by the Sustainable Carbon team.*

***Rosângela Siqueira Queiroz, Health and Safety Technician, is responsible for monitoring the IPEs usage daily, providing evidence and necessary documents to Social Carbon report by the Sustainable Carbon team, conducting weekly training on labor health and safety, such as lectures to create awareness and to prevent alcohol abuse, drug use, and STIs.*

**** Marcos Antônio de Oliveira da Silva and Cesar Augusto Ramos Pereira are employees of the ceramics. Participate in the audit to confirm project installation, procedures to monitor the production, production registers and also were interviewed to confirm parameters related to the Social carbon indicators.*

2.4 Site Inspections

A complete desk review of the submitted MR (version 1) /2/ and supportive evidences have been checked by the Verification Team.

In addition, audit team has conducted a remote site inspection via videoconference (teams) with PP on different topics as mentioned in the following sections of this report.

Based on the videoconference, MR review, as the review of VCS procedures and guidelines, RINA Verification team has proceeded to skip the presential site visit due to the COVID-19 pandemic. Verification team has used the following alternative means for its assessment and to justify that they are sufficient for the purpose of verification.

- By review of MR;
- By taking follow up actions by conducted interview with PP, to gather information about knowledge of project design, current situation via videoconference. Cross-checked evaluation under the scope of all information and references provided in MR. Details of interviewees, topics covered and additional information presented in the above section “1.8 – Interviews”.

Verification team has done the follow-up actions by:

1. Videoconference with PP Teams (for interviews), were used with the video camera function. PP also has provided videos to confirm the project installations /14a/.
2. Data for the monitored parameters were provided and cross checked VCUs spreadsheet

3. PP presented all documents related to monitoring.

The calculations and assumptions made in determining the CERs were reviewed and discussed with PP by videoconference.

2.5 Resolution of Findings

The objective of this phase of the verification is to resolve any outstanding issues which need to be clarified for RINA's positive conclusion on the project description. To guarantee transparency any findings raised during the verification are incorporated in the Appendix A to this report. A corrective action request (CAR) is raised if one of the following occurs:

- The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions.
- The VCS Version 4.0 requirements have not been met.
- There is a risk that the emission reductions cannot be monitored or calculated.

Describe the process for the resolution of any findings (corrective actions and clarifications or other findings) raised by the verification team during the verification and, where applicable, outstanding forward action requests from the validation or previous verifications.

During this verification 3 Clarification Requests (CRs) and 5 CAR (Corrective Actions) were identified related to the monitoring, implementation or operations of the proposed VCS project activity (Monitoring Report version 1.0 of 27/08/2021) in relation to all relevant VCS requirements v 4.0 for the project activity and the applied baseline and monitoring methodology; these findings have been discussed in appendix B of this report and were correctly closed.

2.5.1 Forward Action Requests

No FAR was raised during the verification.

2.6 Eligibility for Validation Activities

RINA is accredited for validating and verifying GHG emission reduction project activities falling under sectoral scope 01 Energy industries (renewable/non-renewable sources) /07/.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

Not applicable. The project is not included in any other emission trading program or mechanism

3.2 Methodology Deviations

No methodology deviation applicable in the current monitoring period.

3.3 Project Description Deviations

According to the PD v.8 and the 6th monitoring report, Cenol Ceramic presents 13 Intermittent (Paulista) kilns. However, it was recognized that there are only 11 Paulista kilns in the factory.

RINA confirmed the kilns installed during the remote onsite inspection through videoconference and interview and confirms that this adjustment does not have impact in the baseline, additionality, and conservatism of this project.

3.4 Grouped Projects

The verification team confirms that the project is not a grouped project and hence this is not applicable to the project activity.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

During the validation process, *Cenol* and *Telha Forte* ceramics utilized two different types of kilns in their burning process: *Round*¹ kilns and *Paulista*² kilns. During the first crediting period, the implementation of the project activity saved energy due to the following modifications:

- Use of biomasses with less surface area than wood;
- Insertion of air with the new fuels, increasing the oxygenation;
- Reduction of thermal energy loss since the entrances will be kept closed or connected to the equipments;

Injection of biomasses controlled by equipments, avoiding surplus of fuel often occurred when using wood.

¹ The “Round” kiln is a kind of intermittent kiln with Round shape and lateral furnaces. Its internal diameter is about 9 meters. It is usually employed to burn tiles and bricks.

² The “*Paulistinha*” is a kind of intermittent kiln with rectangular shape and lateral furnaces. It is usually employed to burn tiles.

Most of these improvements were made using the income derived from the carbon credits trade, since the implementation of the project as the construction of new kilns during the first crediting period. In addition, with the construction of new kilns, eight Intermittent kilns still operating in Telha Forte Ceramic Industry. Besides that, Cenol Ceramic Industry operates with 11 Intermittent kilns. Thus, Telha Forte Ceramic presents 2 Intermittent (Mobile) kilns and 8 Intermittent (Paulista), totalizing 10 Intermittent Kilns. Cenol Ceramic presents 11 Intermittent (Paulista) kilns.

During the revalidation process and the current monitoring period, none of the ceramics factories built new kilns. Thus, Cenol remains operating with 11 “Paulista” kilns and the Telha Forte Ceramics is operating with 8 “Paulista” kilns (which corresponds to 30% of production) and 2 “Mobile” kilns (which corresponds to 70% of production).

Telha Forte Ceramics is operating with 8 “Paulista” kilns (corresponds to 30% of production) and 2 “Mobile” kilns (corresponds to 70% of production).

The current configuration of the ceramics were confirmed by RINA during the remote on site inspection, through video conference and interviews

The main sustainable development contributions are:

- SDG 7: Affordable and Clean Energy
- SDG 8: Decent Work and Economic Growth
- SDG 12: Responsible Consumption and Production
- SDG 13: Climate Action

4.2 Safeguards

4.2.1 No Net Harm

The only negative impact identified is that the project activity will generate ashes due to the burning of the biomass, but this impact will be mitigated by using the ashes as fertilizer.

The burning of the new biomasses also emits particulate material and CO₂, as well as when using native wood. However, GHG emission reductions will be improved since they are renewable biomasses which have carbon neutral lifecycles.

The SOCIALCARBON indicators will evaluate if there are positive social and environmental impacts from the Project Activity. The SOCIALCARBON methodology uses a set of analytical tools that assess the social, environmental and economic conditions of communities affected by the project and demonstrates the project’s contribution to sustainable development through continuous monitoring.

4.2.2 Local Stakeholder Consultation

The formal stakeholder consultation was carried out during the validation of the project. Currently, the company's environmental management area is available to receive any kind of suggestions and comments from the community through the website, CSC, telephone, e-mail or

even personally. For this current monitoring period there were no registration of complaints, confirmed through interview during the remote onsite visit.

4.2.3 AFOLU-Specific Safeguards

Not applicable. It is not AFOLU project.

4.3 Accuracy of GHG Emission Reduction and Removal Calculations

In accordance with the applied methodology *AMS-I.E.: Switch from Non-Renewable Biomass for Thermal Applications by the User – Version 07, of 22/07/2016* the emission reduction is calculated as baseline emissions (BE_y) minus project emissions (PE_y) minus leakage emissions (LE_y).

Baseline emissions

$$BE_y = B_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossilfuel} \quad (\text{Equation 01})$$

Where:

BE_y: Baseline emissions during the year y in tCO₂e

B_y: Quantity of biomass that is substituted or displaced in tonnes

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 or approved default country specific fraction of non-renewable woody biomass (fNRB) values available on the CDM website³

NCV_{biomass}: Net calorific value of non-renewable biomass that is substituted in TJ/tonne

EF_{projected_fossil fuel}: Emission factor for the projected fossil fuel consumption in the baseline in tCO₂/TJ⁴.

B_y is determined using the following option:

Calculated from the thermal energy generated in the project activity as:

$$B_y = \frac{HG_{p,y}}{\eta_{old} \times NCV_{biomass}} \quad (\text{Equation 02})$$

Where:

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

³ Default values endorsed by designated national authorities and approved by the Board are available at <https://cdm.unfccc.int/DNA/fNRB/index.html> or http://cdm.unfccc.int/methodologies/standard_base/index.html.

⁴ The fossil fuel likely to be used by similar consumers is taken the IPCC default value of residual fossil fuel.

η_{old} : Efficiency of the system being replaced

$$HG_{p,y} = SGE \times PR_y \quad (\text{Equation 03})$$

Where:

SGE: Specific energy which has to be generated in the process to produce a certain amount of ceramic units in TJ/thousands of ceramic units.

PR_y: Amount of product produced in year y in units of ceramic pieces fired

$$\eta_{old} = \frac{SGE}{SFE} \quad (\text{Equation 04})$$

Where:

SFE: Specific fuel energy needed for the process to produce a certain amount of ceramic units in TJ/ thousands of ceramic units.

$$SFE = BF_y \times NCV_{biomass} \quad (\text{Equation 05})$$

Where:

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

Using the Equations 3, 4 and 5 in the Equation 2 it results to:

$$B_y = PR_y \times BF_y \quad (\text{Equation 06})$$

As shown in the calculations above, the η_{old} is not required to calculate the Baseline emissions, thus it was excluded.

The values applicable to the monitoring period will be confirmed in the final report.

Project Emissions

According to applied Methodology⁵ the project emissions could be a result of biomass transportation of a distance over 200Km or emissions from energy consumption associated with processing of biomass residue. If the biomass providers are located over a distance of 200 Km of the Ceramic factory, project emissions will be calculated using the Methodological tool "Project

⁵ Available at <<https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-16-v4.pdf>> Last visit on: 25/08/2021.

and leakage emissions from transportation of freight” – 0.1.1.0⁶ where the option B “using conservative default values” was used. The emissions caused by transportation of biomass over distances greater than 200km was calculated through the following equation:

$$PE_{TR,m} = \sum_f D_{f,m} \cdot FR_{f,m} \cdot EF_{CO2,f} \cdot 10^{-6}$$

Where:

PE_{TR,m} = Project emissions from road transportation of freight monitoring period *m* (tCO₂e)

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* (gCO₂/tkm)

f = Freight transportation activities conducted in the project activity in monitoring period *m*

Leakage

The Methodology AMS-I.E v.7 and the General guidance on leakage in biomass project activities predicts the following possible three sources of leakage:

- A) *If the project activity includes substitution of non-renewable biomass by renewable biomass, leakage in the production of renewable biomass must be considered.*

The leakage from biomass projects, like this project activity, should also be estimated according to the “General guidance on leakage in biomass project activities” (attachment C of appendix B)⁷ of Indicative Simplified Baseline and Monitoring Methodologies for Selected Small-Scale CDM Project Activity Categories, which identifies different emission sources based on the type of biomass considered (described in the table below).

Table 6. Sources of leakage according to the type of the biomass

Biomass Type	Activity/ Source	Shift of pre project activities	Emissions from biomass generation/ cultivation	Competing use of biomass
	Existing forests	-	-	X

⁶ Available at: <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-12-v1.pdf>. Last visited on 25/08/2021.

⁷ Document available at: http://cdm.unfccc.int/methodologies/SSCmethodologies/AppB_SSC_AttachmentC.pdf. Last visit on: 21/03/2018.

Biomass from forests	New forests	X	X	-
Biomass from croplands or grasslands (woody or non-woody)	In the absence of the project the land would be used as a cropland/wetland	X	X	-
	In the absence of the project the land will be abandoned	-	X	-
Biomass residues or waste	Biomass residues or wastes are collected and use.	-	-	X

Observing the Table above, the possible sources of leakage of the present project activity is the competing use of forest residues (sawdust, wood residue), Açaí pits, Brazilian nut husk and Native wood from forest management. All of these biomasses have enough availability as shown below demonstrating the lack of leakage for each biomass.

Forest Residues (Sawdust, Wood residues) and Açaí pits

RINA verified in the registered PD that as per the registered PD Forest Residues are used for the ceramic devices burning. The production of wood generates a large amount of residues, which can be reused to generate thermal energy. Considering that around 22% of the wood produced generates forest residue⁸ and that the production of wood in the State of Pará (PA) was of 5,368,861 m³ in 2016 than, the production of forest residues was around 1,181,149 m³ per year.

The project activity average consumption of forest residues would be around 11,821.93 tonnes per year, which represents less than 1% of the total production of these residues generated in the State of Pará. This way this renewable biomass did not have potential to generate leakage emissions due to its high availability.

⁸ BRITO EO. Estimativa da produção de Resíduos na Indústria Brasileira de Serraria e Laminação de Madeira. Rev. da Madeira. v.4. n.26. 1995, pp. 34-39.

The production of açai in the State of Pará in the year of 2016 was 131.836 tonnes⁹. The pit corresponds to 85% of the weight of açai¹⁰; therefore the açai pit production was around 112,060 tonnes in the year of 2016.

The project activity average consumption of açai pits would be around 9,293.17 tonnes per year, which represents less than 1% of the total production of these residues generated in the State of Pará. This way this renewable biomass did not have potential to generate leakage emissions due to its high availability.

B) Leakage relating to the non-renewable biomass shall be assessed from ex-post surveys of users and areas from where biomass is sourced.

RINA verified in the registered PD that the following potential sources of this type of leakage could be identified:

- Use/diversion of non-renewable biomass saved under the project activity by non-project households/users who previously used renewable energy sources. If this leakage assessment quantifies an increase in the use of non-renewable biomass used by the non-project households/users attributable to the project activity then baseline is adjusted to account for the quantified leakage.
- Use of non-renewable biomass saved under the project activity to justify the baseline of other project activities can also be potential source of leakage. If this leakage assessment quantifies a portion of non-renewable biomass saved under the project activity that is used as the baseline of other project activity then baseline is adjusted to account for the quantified leakage.
- Increase in the use of non-renewable biomass outside the project boundary to create non-renewable biomass baselines can also be potential source of leakage. If this leakage assessment quantifies an increase in use of non-renewable biomass outside the project boundary then baseline is adjusted to account for the quantified leakage.

The carbon credits incomes stimulate the use of renewable biomass to other ceramic companies presenting a huge possibility for sustainable development in the region. Therefore, the sources of leakages mentioned above are not applicable as the project activity does not displace the use of renewable biomass of a non-project user, due to the likely decrease in the use of non-renewable biomass in the region and there is current great amount of renewable biomasses available locally as described before. The non-renewable biomass employed which would be

⁹ IBGE. Extração vegetal e silvicultura 2007. Available at: <<https://cidades.ibge.gov.br/brasil/pa/pesquisa/16/12705>>. Last visit on: 21/03/2018.

¹⁰ Source: <<http://minhasfrutas.blogspot.com/2008/12/importancia-economica-do-aai.html>>. Last visit on: 21/03/2018.

employed in this project activity is not being saved for other project activity, since other ceramics were already consuming wood from non-sustainable forest management (common practice).

The project contributes to reduce the use of non-renewable biomass, especially due to the incentive of carbon credits. Therefore, it can be concluded that this source of leakage, until the date of this monitoring report, is not considered for this project activity. This leakage was monitored in order to guarantee the project conservativeness.

C) If the equipment is transferred from another activity or if the existing equipment is transferred to another activity, leakage is to be considered.

Confirmed in the registered PD. That the leakage is not applicable for this project activity as there was no transference of equipment, in spite of new equipments had to be acquired.

4.4 Quality of Evidence to Determine GHG Emission Reductions and Removals

The MR describes that data will be kept for two years after the end of the crediting period or the last issuance of carbon credits for this project activity, whichever occurs later. Data for the monitoring period was available during the remote onsite visit.

The following parameters were available at validation as per the registered VCS PD/02/ and the validation report /09/:

DATA/PARAMETER Unit	Source of data	Reported value for the project period	Assessment/Observation
EF_{projected_fossilfuel} (tCO₂/TJ)- CO₂ Emission factor for the substitution of non-renewable woody biomass by similar consumers.	Registered PD and validation report describe that the value was calculated in accordance with the applied methodology	81.6	RINA verified, it is in accordance with the value described in the registered PD /02/
ρ_{wood} (Tonnes/m³)- Specific gravity of non-renewable biomass	Registered VCS PD /02/ describes that it was taken from Brazilian studies for the Amazon Biome	0.67	RINA verified that the value applied is in accordance with the registered PD /02/ and it corresponds to the Amazon biome, applicable to the project activity
BF_y (Tonnes of native wood per tonnes of ceramic units fired)- Baseline consumption of non-renewable biomass per tonees	Registered PD describes that Historical data from from project the project developer was used /02/	Cenol: 0.64 (paulista kiln) Telha Forte: 0.62 (paulista kiln)	RINA verified that the value applied is in accordance with the registered PD /02/

of ceramic units produced in year y		0.46 (mobile kiln)	
EF_{CO2,f} (g CO ₂ /t km) Default CO ₂ emission factor for freight transportation activity f	Registered PD describes that the value is in accordance with TOOL12 Methodological tool: Project and leakage emissions from transportation of freight Version 01.1.0 /11/	Heavy vehicles: 129 Light vehicles: 245	RINA verified, it is in accordance with the value described in the registered PD /02/ in accordance with the TOOL 12 /11/

Parameters monitored ex post:

Data/Parameter	PRy																		
Data Unit	Tonnes of ceramic devices																		
Description	Production of ceramic devices																		
Source of data to be used	Controlled by the project proponent (ceramic company) /14/ /13/																		
Value of monitored parameter for the monitoring period	Data verified during the monitoring period:<table><tr><td></td><td>Cenol</td><td>Telha Forte</td></tr><tr><td>2017</td><td>2,734</td><td>5,496</td></tr><tr><td>2018</td><td>21,755</td><td>29,578</td></tr><tr><td>2019</td><td>18,306</td><td>37,729</td></tr><tr><td>2020</td><td>25,850</td><td>36,068</td></tr><tr><td>Total</td><td>68,645</td><td>108,871</td></tr></table> RINA has cross checked the Cenol and Telha Forte internal control /14/ against the spreadsheet control data /13/ used to calculate the VERs /03/. During the remote visit and remote meetings to confirm revised data (please, refer to CAR 1) to confirm the correct data transference.		Cenol	Telha Forte	2017	2,734	5,496	2018	21,755	29,578	2019	18,306	37,729	2020	25,850	36,068	Total	68,645	108,871
	Cenol	Telha Forte																	
2017	2,734	5,496																	
2018	21,755	29,578																	
2019	18,306	37,729																	
2020	25,850	36,068																	
Total	68,645	108,871																	
Monitoring equipment	Not applicable. Parameter is controlled manually (counted) by a trained personnel on ceramic factories.																		
Accuracy of the monitoring equipment	Not applicable. Parameter is controlled manually (counted) by a trained personnel on ceramic factories.																		
Measuring/Reading/Recording frequency	In accordance with registered PD parameter is monitored monthly. Verified during the on site visit that the production is controlled and registered by PP daily, and aggregated on a monthly and yearly basis.																		
Calculation method (if applicable)	Not applicable.																		
Calibration																			
Calibration frequency/interval	Calibration is not applicable.																		

Is the calibration interval in line with the monitoring plan of the PDD?	
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	Calibration is not applicable.
Calibration certificates	Calibration is not applicable.

Data/Parameter	Q _{renbiomass}																																			
Data Unit	Tonnes per month																																			
Description	Amount of renewable biomass utilized																																			
Source of data to be used	The amount of biomass was monitored in accordance to the volume measured from the truck dimensions. Amount of biomass was checked according to receipts of purchase and written declarations. RINA verified that for the Cenol, all biomass is received by Telha Forte and sent by trucks to Cenol. The control is made by receipts signed the truck drivers.																																			
Value of monitored parameter for the monitoring period	Data verified during the monitoring period: <table><tr><td></td><td colspan="2">Cenol</td><td colspan="2">Telha Forte</td></tr><tr><td></td><td>Açaí pits (ton)</td><td>Sawdust (ton)</td><td>Açaí pits (ton)</td><td>Sawdust (ton)</td></tr><tr><td>2017</td><td>1,081.30</td><td>140.85</td><td>3,754.63</td><td>921.26</td></tr><tr><td>2018</td><td>2,890.39</td><td>6,308.16</td><td>11,513.62</td><td>9,550.44</td></tr><tr><td>2019</td><td>631.71</td><td>5,630.81</td><td>3,870.21</td><td>12,547.58</td></tr><tr><td>2020</td><td>1,002.09</td><td>5,974.17</td><td>2,520.02</td><td>14,338.09</td></tr><tr><td>Total</td><td>5,605.49</td><td>18,054.00</td><td>21,658.48</td><td>37,357.37</td></tr></table> RINA verified that the amount of biomass is controlled through receipts concerning the acquisition of renewable biomasses /12/. Data is transferred to a spreadsheet /13/ that is used to input data in the VERs spreadsheet /03/. During the remote visit and remote meetings to confirm revised data (please, refer to CAR 2) RINA has cross checked the original documents /12/ against the spreadsheet /13/ to confirm the correct data transference.		Cenol		Telha Forte			Açaí pits (ton)	Sawdust (ton)	Açaí pits (ton)	Sawdust (ton)	2017	1,081.30	140.85	3,754.63	921.26	2018	2,890.39	6,308.16	11,513.62	9,550.44	2019	631.71	5,630.81	3,870.21	12,547.58	2020	1,002.09	5,974.17	2,520.02	14,338.09	Total	5,605.49	18,054.00	21,658.48	37,357.37
	Cenol		Telha Forte																																	
	Açaí pits (ton)	Sawdust (ton)	Açaí pits (ton)	Sawdust (ton)																																
2017	1,081.30	140.85	3,754.63	921.26																																
2018	2,890.39	6,308.16	11,513.62	9,550.44																																
2019	631.71	5,630.81	3,870.21	12,547.58																																
2020	1,002.09	5,974.17	2,520.02	14,338.09																																
Total	5,605.49	18,054.00	21,658.48	37,357.37																																

	OBS: the Specific Gravity of biomass [ton/m ³] used is in accordance with data in the registered PD = 0.35 for the sawdust and 0.72 for the açai pits.
Monitoring equipment	No monitoring equipment is used to determine this parameter. Values are from the receipts.
Accuracy of the monitoring equipment	Not applicable.
Measuring/Reading/Recording frequency	In accordance with registered PD parameter is monitored monthly. Verified during the on site visit that all biomass is controlled and registered by PP.
Calculation method (if applicable)	Not applicable.
Calibration	
Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	Calibration is not applicable.
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	Calibration is not applicable.
Calibration certificates	Calibration is not applicable.

Data/Parameter	Origin of renewable biomass
Data Unit	Not applicable
Description	origin of renewable biomass
Source of data to be used	Controlled by the ceramic owner
Value of monitored parameter for the monitoring period	Value is not applicable In the current monitoring period it was used sawdust and açai pits, considered renewable as fulfilling the options described in the methodology applied, in accordance with registered PD /02/.
Monitoring equipment	Not applicable.
Accuracy of the monitoring equipment	Not applicable.
Measuring/Reading/Recording frequency	Each monitoring period
Calculation method (if applicable)	Not applicable.
Calibration	

Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	Calibration is not applicable.
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	Calibration is not applicable.
Calibration certificates	Calibration is not applicable.

Data/Parameter	Leakage of non-renewable biomass
Data Unit	tCO ₂ e
Description	Leakage resulted from the non-renewable biomass
Source of data to be used	Monitored
Value of monitored parameter for the monitoring period	0 RINA verified that that there was no leakage from non-renewable biomass. Refer to the assessment described in the section 4.2: Leakage
Monitoring equipment	Not applicable.
Accuracy of the monitoring equipment	Not applicable.
Measuring/Reading/Recording frequency	Annually
Calculation method (if applicable)	Not applicable.
Calibration	
Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	Calibration is not applicable.
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	Calibration is not applicable.
Calibration certificates	Calibration is not applicable.

Data/Parameter	$f_{NRB,y}$
Data Unit	Percentage
Description	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 or

	approved default country specific fraction of non-renewable biomass (fNRB) values available on the CDM website.
Source of data to be used	TOOL 30: "Calculation of the fraction of non-renewable biomass" version 01.0."/15/
Value of monitored parameter for the monitoring period	78.32% RINA verified the calculation and the references used listed the spreadsheet /03/during the remote onsite inspection and no error was found
Monitoring equipment	Not applicable.
Accuracy of the monitoring equipment	Not applicable.
Measuring/Reading/Recording frequency	Annually
Calculation method (if applicable)	Not applicable.
Calibration	
Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	Calibration is not applicable.
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	Calibration is not applicable.
Calibration certificates	Calibration is not applicable.

Data/Parameter	Renewable biomass surplus		
Data Unit	tonnes or m ³		
Description	Amount of renewable biomass available		
Source of data to be used	monitored		
Value of monitored parameter for the monitoring period	Biomass surplus	Surplus	Year
	Açaí pits	112,060 tonnes/year	2016
	Forest residues (sawdust, wood residue)	1,181,149 m ³ /year	2016

	RINA verified that the information is in accordance with the registered PD. Moreover, please, refer to additional information in the section Leakage.
Monitoring equipment	Not applicable.
Accuracy of the monitoring equipment	Not applicable.
Measuring/Reading/Recording frequency	Annually
Calculation method (if applicable)	Not applicable.
Calibration	
Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	Calibration is not applicable.
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	Calibration is not applicable.
Calibration certificates	Calibration is not applicable.

Data/Parameter	Df,m																	
Data Unit	Kilometre																	
Description	Return trip distance between the origin and destination of freight transportation activity f in monitoring period m																	
Source of data to be used	Monitored																	
Value of monitored parameter for the monitoring period	<table><tr><th rowspan="2">Year</th><th colspan="2">Df,m (km)</th></tr><tr><th>Cenol</th><th>Telha forte</th></tr><tr><td>2017</td><td>0.00</td><td>10,470.60</td></tr><tr><td>2018</td><td>0.00</td><td>35,386.46</td></tr><tr><td>2019</td><td>0.00</td><td>25,371.80</td></tr><tr><td>2020</td><td>0.00</td><td>24,577.80</td></tr></table> RINA verified that PP has monitored the distances of the providers and values are registered in the VCUs spreadsheet. Note: RINA verified that all the biomass is received by Telha Forte ceramic and Telha Forte send it to Cenol ceramic. Both ceramics are close, there the value for Dfm for Cenol is zero.	Year	Df,m (km)		Cenol	Telha forte	2017	0.00	10,470.60	2018	0.00	35,386.46	2019	0.00	25,371.80	2020	0.00	24,577.80
Year	Df,m (km)																	
	Cenol	Telha forte																
2017	0.00	10,470.60																
2018	0.00	35,386.46																
2019	0.00	25,371.80																
2020	0.00	24,577.80																
Monitoring equipment	Not applicable.																	
Accuracy of the monitoring equipment	Not applicable.																	

Measuring/Reading/Recording frequency	To be updated whenever the distance changes
Calculation method (if applicable)	Not applicable.
Calibration	
Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	Calibration is not applicable.
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	Calibration is not applicable.
Calibration certificates	Calibration is not applicable.

Data/Parameter	FR _{f,m}					
Data Unit	tonnes					
Description	Total mass of freight transported in freight transportation activity f in monitoring period m					
Source of data to be used	Records by project participants or records by truck operators					
Value of monitored parameter for the monitoring period		FR _{f,m} in tonnes				
		Cenol		Telha Forte		Total
		Açaí pits	Sawdust	Açaí pits	Sawdust	
	2017	1,081.30	140.85	4,835.93	1,062.11	7,120.18
	2018	3,275.72	6,121.63	11,721.08	15,551.02	36,470.66
	2019	631.71	5,630.81	1,947.41	18,178.39	26,388.33
	2020	1,002.09	5,974.17	3,522.12	20,386.61	30,884.99
	Total in the monitoring Period					101,062.95
	RINA verified that the parameter is correctly considered in the VCUs spreadsheet /03/.					
Monitoring equipment	Not applicable.					
Accuracy of the monitoring equipment	Not applicable.					
Measuring/Reading/Recording frequency	Annually					
Calculation method (if applicable)	Not applicable.					

Calibration	
Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	Calibration is not applicable.
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	Calibration is not applicable.
Calibration certificates	Calibration is not applicable.

Data/Parameter	NCV _{biomass}
Data Unit	TJ/tonne of wood
Description	Net Calorific Value of non-renewable woody biomass that is substituted
Source of data to be used	AMS-I.E.: Switch from non-renewable biomass for thermal applications by the user - Version 7.0. /06/. The value informed in the applied methodology is based on IPCC default for wood fuel.
Value of monitored parameter for the monitoring period	0.015 The sources of data is the IPCC default for wood fuel, as recommended in the applied methodology /06/
Monitoring equipment	Not applicable.
Accuracy of the monitoring equipment	Not applicable.
Measuring/Reading/Recording frequency	Annually
Calculation method (if applicable)	Not applicable.
Calibration	
Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	Calibration is not applicable.
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	Calibration is not applicable.
Calibration certificates	Calibration is not applicable.

A remote audit has been performed on 24/09/2021 and it is confirmed that the monitoring arrangements in the monitoring plan are feasible within the project design.

All monitored data was cross checked against the evidences provided. Data used the VCU calculation are from external/official sources and internal monitoring and manually transferred to the VCUs spreadsheet. Methods and Formulas are correctly presented in accordance with the methodology and registered PD as detailed above. No transposition error was found in the final documents (please, refer to CARs and CRs listed in appendix).

The calibration is not applicable to the project activity

The data presented in the monitoring report /01/ were assessed by reviewing in detail project documentation, collection of monitored data, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. Verified during the remote audit, that the roles and responsibilities are in accordance with the registered PD.

It is RINA's opinion that the GHG emission reductions /03/ have been quantified correctly in accordance with the project description /02/ and applied methodology /06/ with reasonable level of assurance.

4.5 Non-Permanence Risk Analysis

There is no non-permanence risk rating determined by the project proponent.

4.6 SOCIALCARBON Results

4.6.1 Social Resource

Indicator	1. Diversity: Evaluates the employment opportunities provided by the Ceramic industry to historically excluded social groups, such as: women, ex-convicts, the elderly, the indigenous, the illiterate and the disabled.										
Situation	The Ceramic factories have 220 employees; around 10% of the workers are from excluded social groups. <table> <tr> <th>Excluded social groups</th><th>Number of workers</th></tr> <tr> <td>Women employees</td><td>5</td></tr> <tr> <td>Senior employees</td><td>6</td></tr> <tr> <td>Disabled employees</td><td>8</td></tr> <tr> <td>Illiterate</td><td>4</td></tr> </table>	Excluded social groups	Number of workers	Women employees	5	Senior employees	6	Disabled employees	8	Illiterate	4
Excluded social groups	Number of workers										
Women employees	5										
Senior employees	6										
Disabled employees	8										
Illiterate	4										

There are currently no employees at the factory from minority groups and there are no plans to hire minorities.	There are currently no employees from minority groups, but the factory has made plans to hire minorities.	Less than 15% of employees belong to a minority group.	Between 15 ≤ 30% of employees are from minority groups.	More than 30% of employees are from minority groups.	In addition to more than 30% of employees being minorities, the factory presents initiatives or combat forms of discrimination.
Score	3				
Justification	Around 10% of the employees belong to a minority group				
Evidence	RINA has confirmed that score is in accordance with the evidences /5a/				

Indicator	2. Community development: Evaluates the existence of management practices that contribute to local community development.				
Situation	Cenol and Telha Forte Ceramics make constantly donations of brick and money. During the current period, the ceramic factories made donations to local church and community. Also, the potteries donate to “Gente Livre”, which is a local recovery center that offers lectures on prevention and awareness about drugs, moreover, has an inpatient detox program. “Gente Livre” is not only concerned with the patient's detoxification but also with the rehabilitation and insertion of the patient in the labor market, providing a professional training course and follow-up. Furthermore, the factories provide shelter, medicines, appointments with veterinarians, and food for homeless dogs. In addition, in order to encourage sportive practices for the local community, the factories donate uniforms and provides financial assistance to the project called “Associação de Capoeira Raízes de Angola” since 2014. The factory also provides uniforms and sponsors the community team participation on football tournaments.				
The factory has no initiatives/ activities planned that benefit the local community	The factory responds to occasional (not continuous) requests for assistance.	The factory supports community members or civil society organizations: - Regularly: one per month; OR	In addition to scenario 3, the factory lends out equipment, space and/or provides manpower for activities that benefit the	The factory is formally involved in the development and implementation of social and/or environmental projects in partnership	In addition to scenario 5, the factory has formalized planning in order to maximize their contribution to local community

		- Significant: at least 10 different parties were benefited.	local community.	with public entities and/or civil society organizations.	development, through survey with the community, establishing new partnerships, etc.
Score	3				
Justification	The factory supports community members or civil society organizations regularly: one per month				
Evidence	The information was confirmed by RINA through the evidences provided /6a/ and interview.				

Indicator	3. Employee satisfaction surveys: Evaluates existing systems for employee feedback (questions, suggestions and complaints) and the measures taken in response to the feedback to make improvements.				
Situation	There is a system to evaluate employees' satisfaction through a suggestion box in the Ceramic's facility. Until the pandemic of COVID-19, from time to time (no defined periodicity), the box was opened, and the suggestions/complaints were evaluated and documented on a report. This report is taken to the administration, which is responsible for analyzing it. During the pandemic, Ceramic avoided using the suggestion box to preserve the employees' health. Eventually, whenever it is possible, Ceramic will reactivate the suggestion box again. Also, the suggestions and objections are still discussed in CIPA then scrutinized by the managers.				
Lack of a consultation system for employee feedback.	There are attempts to implement an employee consultation system but it is not being properly utilized. Example: There is a suggestion box, but employees do not use it.	The system for employee consultation is being utilized, but is limited to a suggestion box.	In addition to scenario 3, the factory has implemented or is currently implementing one or more suggestions made by employees.	The factory promotes periodic satisfaction surveys among employees. Example: monthly meetings, book for documenting information, etc	In addition to scenario 5, the factory has stipulated targets and timelines for solutions to employee complains.
Score	3				

Justification	RINA confirmed through interview that the employees' consultation is limited to a suggestion box (Due to COVID-19, during the pandemic, the suggestion box is not available)
Evidence	RINA has confirmed through interview the Employee satisfaction surveys through a suggestion box. Score is correctly applied.

4.6.2 Human Resource

Indicator	4. Additional employee benefits: Evaluates the additional benefits provided to employees. Benefits required by law are not considered.				
Situation	Besides the fixed salary, the company offers additional benefits, such as: - Food staples are offered every month to all workers, on events that the enterprise hold and on their birthday; - Celebration parties on the end of the year, on employees' birthdays and other events the company holds; - Food is donated to workers during the lent; - Medication and medical appointments are offered to employees to treat their diseases; - First shots of Tetanus, Influenza, Hepatitis e Yellow Fever were given to employees in 2019; - Facilitated payment on construction material for employees; and - Monthly commissions for production.				
<i>The factory offers no additional benefits to employees.</i>	<i>Some employees receive an additional benefit.</i>	<i>All employees receive sporadic additional benefits, independent of frequency.</i>	<i>All employees receive an additional benefit monthly.</i>	<i>All employees receive more than one additional benefit monthly.</i>	<i>All employees receive more than one additional benefit monthly and there are also award programs based on merit.</i>
Score	5				
Justification	All employees receive more than one additional benefit monthly				
Evidence	RINA verified that the score is correctly applied in accordance with evidences /7a/ and interview.				

Indicator	5. Health and safety practices: Evaluates the existing health and safety practices in the factories, including the distribution and supervised use of PPE (Personal Protective Equipment) by all employees as well as health and safety programs. Mandatory Programs: PPRA: Program for Prevention and Environmental Risks; PCMSO: Program for Controlling Medical and Occupational Health and CIPA: Internal Commission for Accident Prevention. Complementary programs: PPR: Respiratory Protection Program; PPRPS: Program for Protection from risks in presses and Similar and PCA: Hearing Conservation Program.					
Situation	Comments: The company offers all personal protective equipment necessary for the workers to carry on their activities with safety. There is an internal registered control of the IPEs' usage and return. The responsible monitors the IPEs usage daily and writes a weekly report. The entrepreneur tries to adapt IPEs when the complaints against the equipment are relevant. If employees refused to use the IPEs, the technician of health and safety warns them orally. There are also regular meetings to discuss labor health and safety that include awareness on IPEs usage, first aid, firefighting training and notions about environmental risks in the Ceramic. Still, during the pandemic, this practice continues in small groups. In addition, the Ceramics, to combat the spread of COVID-19, have donated reusable face masks and offered covid's test to employees. Plus, it has provided a safety practices guide to increase employees knowledge about the disease. The reduction of physical and mental health risks not only enables better working conditions but also contributes to continuous improvement of production methods. Health and safety are used as a strategy to increase corporate competitiveness in the market[1]. Environmental Risk Prevention Program (PPRA), Medical Control in Occupational Health Program (PCMSO), and Internal Commission for Accident Prevention (CIPA) exist. Also, the ceramic factory holds weekly training on labor health and safety, such as lectures to create awareness and to prevent alcohol abuse, drug use, and STIs.					
There is no control of PPE distribution. None of the health and safety programs	PPE distribution is being controlled OR there is at least one health and	The factory meets all legal requirements.	The factory meets all legal requirements and: (a) penalizes employees who do not	In addition to scenario 4, the factory contracts or has a technical professional	In addition to scenario 5, the factory develops complementary programs such as PPR, PPRPS	

<i>required by law are being implemented.</i>	<i>safety program required by law being implemented</i>		<i>properly use the PPE and/or</i> <i>(b) has signs encouraging the</i> <i>use of PPE in the factory and/or</i> <i>(c) The factory promotes lectures and events addressing issues related to health and safety in the workplace.</i>	<i>or safety engineer on staff to ensure best practices in the company.</i>	<i>and PCA; and/or</i> <i>The factory encourages physical activity or conducts activities for disease prevention.</i>
Score	6				
Justification	The factory encourages physical activity or conducts activities for disease prevention and factory develops complementary programs such as PPR, PPRPS and PCA				
Evidence	RINA verified the evidences that confirms the correct score of indicator 5. Health and safety practices /8a/ /9a/				

Indicator	6. Training and capacity building programs: Evaluates whether the factory encourages and invests in the professional development of its employees.				
Situation	Comments: The Cenol and Telha forte ceramics presents training courses to individual employees, but not all employees: - Four employees have completed the Maintenance welding training; - Two employees have completed the Safety Course in Driving, Maintenance, and Operation of Loaders and Backhoes and their Implements training.				
<i>The company has not invested in lectures nor professional training</i>	<i>The factory organized occasional lectures.</i>	<i>Training courses were offered to individual employees,</i>	<i>In addition to item 3, the individual employees who were contemplated</i>	<i>In addition to scenario 4, the factory has an internal campaign to</i>	<i>In addition to scenario 5, the Ceramic factory has established a strategic plan</i>

courses for staff.		but not to all employees.	by the training courses replicate the knowledge via lectures to other employees; and/or Regular lectures were offered to employees (at least two per semester).	encourage employees to complete their high school education; and/or The factory promotes a literacy program for youth and adults.	regarding training and capacity building programs.
Score	3				
Justification	Training courses were offered to individual employees, but not to all employees				
Evidence	RINA verified the courses certificates to confirm data described in the parameter 6/10a/				

4.6.3 Financial Resource

Indicator	7. Biomass supply: Evaluates the type, source and quantity of renewable biomass used as fuel, as well as the profile of suppliers.				
Situation	Comments: Cenol and Telha Forte's ceramics use the following renewable biomass: Sawdust and Açai Pits. The factory has a great control of the source and the amount of the renewable biomass used. And 100% of the fuel comes from agro-industrial waste.				
The factory has no control of the source and amount of biomass used; and/or the factory is using non-renewable fuel in the production process.	The factory only has partial control of the source and amount of biomass used.	The factory has total control of the source and amount of renewable biomass used, however 100% of the biomass comes from	The factory has total control of the source and amount of renewable biomass used and less than 50% of the fuel is coming from agro-	The factory has total control of the source and amount of renewable biomass used and more than 50% of the fuel is coming from	The factory has total control of the source and amount of renewable biomass used and 100% of the fuel is coming from

		renewable wood.	industrial waste.	agro-industrial waste.	agro-industrial waste.
Score	6				
Justification	Cenol and Telha Forte's ceramics use 100 % of renewable biomass: Sawdust and Açai Pits				
Evidence	RINA verified the evidences to confirm the biomass used in the project activity /12/				

Indicator	8. Planning and control: Evaluates the existence of financial planning and controls in regards to carbon credits sold by factory.				
Situation	The ceramic factories has organized controls of the income received from carbon credit sales through spreadsheets that show the entry of carbon credit revenues as well as the destination for proceeds.				
	<i>The factory has no organized controls of the income received from carbon credit sales nor the destination for proceeds.</i>	<i>The factory has partial control of the income received from carbon credit sales and the destination for proceeds.</i>	<i>The factory has organized controls of the income received from carbon credit sales, but control of the destination for proceeds is partial.</i>	<i>The factory has organized controls of the income received from carbon credit sales, as well as of the destination for proceeds. However, the factory presents no future planning.</i>	<i>The factory has organized controls of the income received from carbon credit sales, as well as of the destination for proceeds. The factory presents satisfactory future planning (timeline, budget, responsible involved and benefits).</i>
Score	4				
Justification	The factory has organized controls of the income received from carbon credit sales, as well as of the destination for proceeds. However, the factory presents no future planning.				
Evidence	RINA verified that the score is correctly presented in accordance with the evidences /15a/ /17a/				

	FAR 1 was raised: PP has presented the evidence to confirm that the ceramics have organized controls destination for proceeds. The spreadsheet does not present the dates of the events. Moreover, for better traceability, PP is requested to maintain the evidences of the events described in the controls for the next monitoring period (Planilha Carbono Despesas e Investimentos Cenol e Telha Forte.xlsx; Relatório Carbono Despesas e Investimentos 11-2017 à 12-2020.docx)
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Indicator	9. Carbon credit investments: Evaluates whether proceeds from the sale of carbon credits was invested in factory improvements or activities that benefit the local community.					
Situation	Comments: All the revenues provided by the sale of carbon credits was invested in improvements in work conditions and in the ceramic factory infrastructure, apart from donations to local community and benefits provided to employees. Thus, 100% of the income generated by carbon credit sales was invested in the factory and in the community development.					
<i>The income generated by carbon credit sales was not invested in the factory nor in the community, or there are no organized controls of the allocation of proceeds.</i>	<i>Less than 20% of the income generated by carbon credit sales was invested the factory or in the community development.</i>	<i>Between 20 and 40% of the income generated by carbon credit sales was invested the factory or in the community development.</i>	<i>Between 40 and 60% of the income generated by carbon credit sales was invested the factory or in the community development.</i>	<i>Between 60 and 80% of the income generated by carbon credit sales was invested the factory or in the community development.</i>	<i>Between 80 and 100% of the income generated by carbon credit sales was invested the factory or in the community development.</i>	
Score	6					
Justification	PP has presented the evidences to confirm that considering the monitoring period, between 80 and 100% of the income generated by carbon credit sales was invested the factory or in the community development					
Evidence	RINA verified the evidences to confirm the score of the indicator Carbon credit investments /16a/ /15a/ /17a/					

4.6.4 Natural Resource

Indicator	10. Environmental management: Evaluates initiatives and structured/certified environmental management systems in regard to managing waste, water, air, soil, energy and nature conservation. Note: the use of renewable fuel shall not be deemed an initiative, since it is a prerequisite for becoming a carbon project.				
Situation	Comments: Cenol and Telha Forte Ceramics presents the following nature conservation initiatives to reduce the main environmental impacts: - Degraded area recovery; - Pisciculture; and - Selective campaigns.				
<i>There are no environmental management initiatives.</i>	<i>There are up to two specific initiatives to prevent/reduce the main environmental impacts caused by the Ceramic factory.</i>	<i>There are more than two initiatives to prevent / reduce the main environmental impacts caused by Ceramic factory.</i>	<i>In addition the scenario 3, the factory is structuring an environmental management system in the company.</i>	<i>The factory has implemented a formal environmental management system.</i>	<i>The factory's environmental management system has been certified by a third party.</i>
Score	3				
Justification	There are three initiatives to reduce the main environmental impacts				
Evidence	PP has presented videos to confirm the description of the parameter 10 /14a/				

Indicator	11. Brazilian environmental legislation: Evaluates whether the factory has a water grant (for those making use of a well or pond), federal technical registry, operating license and license for clay extraction and is in compliance with the conditions established by the documents. It also evaluates the promotion and fulfillment of agreements with local stakeholders.				
Situation	Cenol - Operating License (LO): nº 46/2020 emitted by the Municipality Institute of Environment (SEMMA) valid until December 1st, 2024; - Clay Extraction License: nº 046/2020 emitted by the Municipality Institute of Environment (SEMMA) valid until December 01st, 2024;				

- Rural Activity License (LAR): n° 015/2019 emitted by the Municipality Institute of Environment (SEMMA) valid until August 30th, 2021; - Water Grant: n° 2725/2019 the factory has a dispensation statement to water grant. The document was emitted by the Municipality Institute of Environment (SEMMA) in June 2018 valid until October 27th, 2024; - Federal Technical Registry (CTF): Regular. The CTF is a document emitted by the Brazilian Institute of Environment and the Natural Renewable Resources valid until November, 30th 2021. Telha Forte - Operating License (LO): n° 29/2021 emitted by the Municipality Institute of Environment (SEMMA) valid until June 28th, 2024; - Clay Extraction License: n° 3034/2021 emitted by the Municipality Institute of Environment (SEMMA) valid until January 03th, 2026; - Water Grant: n° 3034/2021 the factory has a dispensation statement to water grant. The document was emitted by the Municipality Institute of Environment (SEMMA) in July, 2018 valid until January 03th , 2026; - Federal Technical Registry (CTF): Regular. The CTF is a document emitted by the Brazilian Institute of Environment and the Natural Renewable Resources valid until October, 19th 2021.					
<i>The factory does not possess any of the following:</i> -operating license -license for clay extraction -water grant - federal technical registry	<i>The factory only posses two of the following:</i> -operating license -license for clay extraction -water grant - federal technical registry	<i>The factory only posses three of the following:</i> -operating license -license for clay extraction -water grant - federal technical registry	<i>The factory posses all of the following:</i> -operating license -license for clay extraction -water grant - federal technical registry <i>However, they do not meet all the conditions established by them.</i>	All licenses are up to date and all conditions established by them are being met.	<i>In addition to the previous scenario, the factory collaborates with public administration and/or civil society organizations for cooperation with environmental projects.</i>
Score	5				

Justification	All licenses are up to date and all conditions established by them are being met.
Evidence	RINA confirmed the score in accordance with the licenses available /11a/

Indicator	12. Voluntary environmental initiatives: Evaluates voluntary environmental initiatives that improve or establish new environmental assets and services, as well as those that raise environmental awareness of workers, their families and the surrounding community.				
Situation	Comments: During the period analyzed the factory performed some voluntaries environmental initiatives such as: - Planting of seedlings; were planted seedling inside the ceramic factory with the objective of recovering a part of the areas that were degraded because of the extraction of the clay; - Selective collection campaigns; - Signs are displayed around the Ceramic facility reminding of the environmental conservation importance; - Donation of glass and plastic residues to waste collector; and - Broken tiles or bricks are reutilized to repair potholes on roads.				
<i>The factory is not involved in voluntary environmental initiatives.</i>	<i>The factory has implemented only one internal environmental initiative. Example: Planting ten tree saplings on factory grounds.</i>	<i>The factory has implemented more than one internal initiative or is showing continuity for an existing Initiative. Example: Periodic planting of saplings on factory grounds.</i>	<i>The factory has implemented more than one initiative or ongoing initiative whose benefits extend to workers families.</i>	<i>In addition to the previous scenario, the benefits of the initiatives also extend to community members.</i>	<i>In addition to the previous scenario, the factory promotes voluntary environmental initiatives with civil society organizations and/or public administration.</i>
Score	5				

Justification	Ceramics have more than one initiative that benefits also extend to community members
Evidence	The information was confirmed through interview, remote inspection and pictures provided by PP /12a/ /14a/

4.6.5 Biodiversity/Technology Resource

Indicator	13. Technological advances to improve efficiency of the production process: Evaluates the general condition of infrastructure and machinery/equipment used in the production process, in regards to the following: - Brick drying methods: The factory possesses a dryer that recycles the heat from kilns or a small drying furnace. - Efficiency of kilns: The factory utilizes continuous furnaces (ex: hoffman, mobile, tunel) or the factory uses intermittent kilns, but which are adapted to improve their efficiency. - Kiln temperature control: The factory keeps a record of thermocouples or uses digital controls. - Kiln feeds: The factory feeds kilns using automatic or semi-automatic equipment. - Production: The factory control and records production at different stages of the production process (egsales, Ceramic devices that enter in the kiln). - Infrastructure: During the period analysed, infrastructural improvements in the factory were carried out, for instance: construction/renovation of toilets, refectory, cloakroom lecture hall, among others.
Situation	The factory meets all of the characteristics described: - Brick drying methods: the factories possess a dryer that recycles the heat from kilns; - Kiln temperature control: the ceramic controls the temperature of the kilns in the firing process using an electronic thermometer on the kiln; - Efficiency of kilns: the factory uses intermittent kilns which are medium efficiency; - Kiln feeds: the factory utilizes automatic equipment to feeds kilns; - Production: the factory control and records production at different stages; and -Infrastructure: improvements such as renovation of toilets and purchase of new machines.

<i>The factory does not meet any of the characteristics described.</i>	<i>The factory meets one of the characteristics described.</i>	<i>The factory meets 2-3 of the characteristics described.</i>	<i>The factory meets 4 of the characteristics described.</i>	<i>The factory meets all of the characteristics described.</i>	<i>In addition to scenario 5, the factory has organized planning to improve general conditions of the production process.</i>
Score	5				
Justification	The factory meets all of the characteristics described				
Evidence	RINA verified that the score is correctly applied through interview and pictures /18a/ and control spreadsheets /13/				

Indicator	14. Technological advances to improve the general conditions of the working environment: Evaluates the following general conditions of the working environment: cleanliness, noise, heat, lighting and appropriate signage. - Cleanliness: There is not excess dust and debris (ex: broken bricks and iron) around the factory. - Noise: The factory applies programs for noise control that comply with legislation. - Heat: The factory uses equipment to reduce employee exposure to heat (eg. Fans, exhaust, etc). - Lighting: The factory uses equipment to maintain a well-lit working environment (ex: translucent tiles, LED or mercury lamps, etc). - Appropriate signage: ✓ Warning signs indicating danger, or caution; ✓ Warning signs indicating inflammable liquids; ✓ Warning signs encouraging PPE use; ✓ Signs identifying and indicating location of fire fighting equipment.
Situation	The factory meets all the characteristics: - Cleanliness: there is no excess of dust and debris around the ceramics factories; - Noise: Noise control programs according to legislation;

	- Heat: the Ceramic factories use of equipment to reduce employees' exposure to furnace heat such automatic feeds in kilns and a ventilator to make the environment work better; - Lighting: the factories use translucent tiles and LED lamps to improve working environment; and - Appropriate signage: the factories use signing according to the applicable norms.				
<i>The factory does not meet any of the characteristics described.</i>	<i>The factory meets one of the characteristics described.</i>	<i>The factory meets 2-3 of the characteristics described.</i>	<i>The factory meets 4 of the characteristics described.</i>	<i>The factory meets all of the characteristics described.</i>	<i>In addition to scenario 5, the factory has organized planning to improve general conditions of the working environment.</i>
Score	5				
Justification	The factory meets all of the characteristics described.				
Evidence	RINA confirmed through interview and videos /14a/ the score of the indicator 14. Technological advances to improve the general conditions of the working environment				

Indicator	15. Product quality: Evaluates whether the quality of the products was evaluated during the time period analyzed.				
Situation	The ceramic has no certification to evaluate products' quality.				
<i>No efforts were made to analyze or improve product quality.</i>	<i>Samples of some products were evaluated by quality tests.</i>	<i>Samples of all products were evaluated by quality tests.</i>	<i>Some of the products have quality certification.</i>	<i>All products have quality certification.</i>	<i>In addition to scenario 5, the factory has an in-house quality lab.</i>
Score	1				
Justification	No certification to evaluate the products' quality is in place.				
Evidence	RINA verified that the score is correctly applied.				

4.6.6 Carbon Resource

Indicator	16. Stakeholder consultation: Evaluates the existence of a stakeholder consultation system (local community, workers, suppliers, local authorities, civil society organizations, and other social parties involved).					
Situation	Cenol and Telha Forte ceramics conducted an informal stakeholder consultation informing the employees and some members of the local community about the carbon project's co-benefits and investment in the ceramic factories and community facilities due to the carbon credits sale. The employees demonstrate that they are pleased with the project, and no negative comments were made. Nevertheless, during the monitoring period in a measure to avoid spreading the COVID-19 no stakeholder consultation took place since the pandemic.					
<i>During the time period analyzed, the factory did not conduct a stakeholder consultation.</i>	<i>During the time period analyzed, the factory conducted an informal (no records) stakeholder consultation.</i>	<i>During the time period analyzed, the factory conducted a formal (with records) stakeholder consultation; however negative comments were made regarding the project.</i>	<i>During the time period analyzed, the factory conducted a formal (with records) stakeholder consultation, and no negative comments were made regarding the project.</i>	<i>As well as the previous scenario, there are continuous means of communication with stakeholders.</i>	<i>As well as the previous scenario, the next consultation is being planned together with stakeholders.</i>	
Score	2					
Justification	During the time period analyzed, the factory conducted an informal (no records) stakeholder consultation					
Evidence	RINA confirmed the score applied through interview. There is no record of stakeholder consultation, conducted informally.					

Indicator	17. Green marketing: Evaluates whether the factory has marketing strategies geared towards selling their products based on highlighting socio-environmental practices.					
Situation	Comments: The factories make sure to display their environmental concerns by adding the Social Carbon logo on their business cards and their walls.					
<i>The factory does not have</i>	<i>The factory markets their</i>	<i>The factory markets their</i>	<i>The factory has an</i>	<i>The factory has an</i>	<i>As well as the previous</i>	

<i>marketing strategies based on their environmental practices.</i>	<i>environmental practices only using one means of communication. Example: magazine advertisement.</i>	<i>environmental practices using more than one means of communication. Example: magazine advertisement and billboard.</i>	<i>established green marketing strategy, but still has not seen positive results.</i>	<i>established green marketing strategy and sees positive results.</i>	<i>scenario, the factory has plans to invest in Green marketing.</i>
Score	2				
Justification	The factory markets their environmental practices only using one means of communication				
Evidence	RINA confirmed that the score was correctly applied in accordance with the evidences /11a/ /13a/ /14a/				

Indicator	18. Project performance: Evaluates the factory's perception about the results of the project, considering the generation and sale of carbon credits and also external aspects of project.				
Situation	Comments: The ceramic factories showed satisfaction with the carbon project and reported that the project does not only help the ceramic itself but the local community too. Also, developing the carbon project stimulated other ceramic factories in the region to adopt too, and college students have called to learn about the sustainable practices of the project..				
<i>The factory is very dissatisfied and threatens to abandon the carbon project.</i>	<i>The factory is dissatisfied, but does not plan to abandon the carbon project.</i>	<i>The factory is indifferent about the carbon project.</i>	<i>The factory believes the carbon project is something positive, but has complaints.</i>	<i>The factory is very satisfied with the carbon project.</i>	<i>In addition to the previous scenario, the factory considers the carbon project a competitive advantage for their business and encourages other factories to adopt similar practices.</i>
Score	6				

Justification	The factories are very satisfied with the carbon project and the factory considers the carbon project a competitive advantage for their business and encourages other factories to adopt similar practices.
Evidence	RINA confirmed the indicator's score during the remote onsite visit and interview with personnel.

5 ANALYSIS OF SOCIALCARBON RESULTS

5.1 Current Performance

The current performance was confirmed in detail during the verification process as listed in the sections above.

Resource	Critical	Satisfactory	Sustainable	Average Score	Performance
Social	0.0%	100.0%	0.0%	3.0	Satisfactory
Human	0.0%	33.3%	66.7%	4.7	Satisfactory
Financial	0.0%	33.3%	66.7%	5.3	Sustainable
Natural	0.0%	33.3%	66.7%	4.3	Satisfactory
Biodiversity/Tech	33.3%	0.0%	66.7%	3.7	Satisfactory
Carbon	66.7%	0.0%	33.3%	3.3	Satisfactory

5.2 Historical Performance

In the Point Zero, One, Two and Three it was used "Indicators for Industries of the Ceramic Sector". Point Four and the current report (Point 05) use the "Brazilian Red Ceramic Factories Indicators". The new indicators resulted in a different score.

The new indicators were developed based on six years of experience in performance monitoring, project evaluation as well as numerous stakeholder consultations. The goal is to measure the contribution of the project to the sustainable development of Ceramics factories more accurately and efficiently.

Social	Point Zero	Point One	Point Two	Point Three	Point Four	Point Five
	2.3	2.7	2.1	3.1	3.3	3.0

Historic Analysis: Previously, different indicators were used, turnover, Syndical Relations, Benefits, Social Inclusion, Satisfaction, Relation with the community, and Social Benefits. At Point 5, the Social Carbon methodology has been updated which has new indicators. The score decreased at Point 5 due to switching methodologies. Yet, the Ceramic Factories have hired more five women, three seniors and four disabled employees then the previous Report. Thus 11% of workers represents the minority group in the factories. Cenol and Telha contribute to Community development by encouraging sports practices with financial assistance to the “Association of Capoeira Raízes de Angola” and the local community team. In addition, the factories provide shelter, medicines, appointments with veterinarians, and food for homeless dogs. The ceramics factories remained with the suggestion box until the pandemic of COVID-19. Currently, the factories still promote debate in CIPA regarding the suggestions and complaints with the employees in order to evaluate Employee satisfaction.

Human	Point Zero	Point One	Point Two	Point Three	Point Four	Point Five
	1.7	2.5	3.3	5.0	4.7	4.7

Historic Analysis: Both ceramics provide Individual Protective Equipments (IPEs) to the employees according to their respective functions. There is an internal control of equipments withdrawn. At Telha Forte ceramic there is a Safety Technician responsible for instructing and monitor the use of the IPE. Telha Forte and Cenol ceramics realize CIPA (Internal Commission for Accident Prevention) meetings, and promote lectures about health and safety practices. Both ceramics have PCMSO and PPRA as well as periodic medical and clinical exams. At Telha Forte ceramic, the Safety Technician hold lectures regarding health and security. Both ceramics provided vaccination to the employees, including the yellow fever, influenza, tetanus and hepatitis vaccines. In addition, the Ceramics factories, to combat the spread of COVID-19, have donated reusable face masks and offered covid's test to employees. Plus, it has provided a safety practices guide to increase employees knowledge about the disease.

Financial	Point Zero	Point One	Point Two	Point Three	Point Four	Point Five
	3.5	3.8	3.7	4.7	5.3	5.3

Historic Analysis: In the period analyzed Telha Forte and Cenol still use sawdust and açaí pit as renewable biomass and has no difficulty in proving its origin. The entrepreneur controls the expenses and revenues of the project through invoices, and the financial return of the credits.

Natural	Point Zero	Point One	Point Two	Point Three	Point Four	Point Five
	2.9	3.5	3.7	4.7	4.0	4.3

Historic Analysis: The Cenol and Telha Forte Ceramic factories maintain a satisfactory performance. The Ceramics factories have an Operational License and understand the environmental obligations set out by the license, thus developed a fish farming project in the clay extraction area that aims to recover the

degraded area. In addition, both potteries, regarding the mitigation of environmental impacts, donate recyclable material to a waste collector, plus implemented selective collection campaigns. Also, the residues that are not burned are donated to the City Hall to recover roads and grounding.

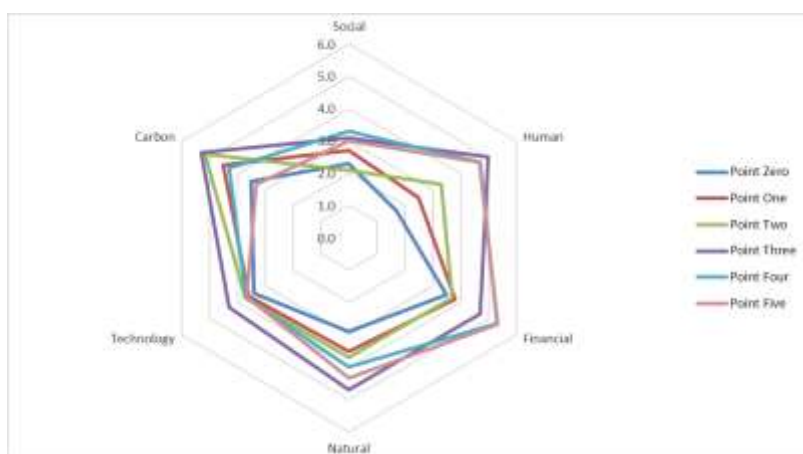
Biodiversity/ technology	Point Zero	Point One	Point Two	Point Three	Point Four	Point Five
	3.4	3.6	3.7	4.3	3.7	3.7

Historic Analysis: Cenol and Telha Forte ceramics uses "Paulistinha" kilns, which are considered a medium efficiency kiln. Both ceramics present semi continuous drying system, and thermocouples (i.e., automatic sensors which are installed in the kilns). In the ceramics factories, the measurement of the temperature of kilns is executed by thermocouples (i.e., automatic sensors which are installed in the kilns). In both enterprises the kilns are automatically feed. Both factories owns various machines which are in good condition. In addition, to improve working environment the potteries invest in infrastructure and equipment to reduce exposure of the employees to the heat and noise as an example. Neither ceramic present a quality control of products.

Carbon	Point Zero	Point One	Point Two	Point Three	Point Four	Point Five
	3.5	4.5	5.2	5.3	4.3	3.3

Historic Analysis: Cenol and Telha forte has lowered the score from the previous report. Yet, there was an improvement of the project performance due to the increase of awareness in the community and stimulating other factories to also adopt the carbon project. On the other hand, currently, there is only one means of communication on green marketing strategy, and the local stakeholder consultation was conducted informally without some stakeholders.

5.3 Performance Hexagon



6 VERIFICATION CONCLUSION

RINA Service S.p.A (RINA) has performed verification of the emission reductions reported for the project activity “Cenol and Telha Forte Ceramics Switching Fuel Project” in Brazil, VCS Registration Reference ID - 54, for the VCS monitoring period from 01/11/2017 to 31/12/2020, with regard to the relevant requirements for VCS, CDM rules and relevant requirements for SOCIALCARBON STANDARD activities.

The project participants Sustainable Carbon – Projetos Ambientais Ltda of the project “Cenol and Telha Forte Ceramics Switching Fuel Project” are responsible for:

- The preparation of greenhouses gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the registered VCS Registration Reference ID – 54 and registered PD version 8 of 20/06/2018 (registered for the second crediting period, for the VCS monitoring period from 01/11/2017 to 31/12/2020).
- The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project.

It is the responsibility of RINA to express an independent verification opinion about the project’s conformity with the VCS requirements and procedures and on the reported greenhouse gas emission reductions from the project.

Based on documented evidence and corroborated by an on-site assessment RINA can confirm that:

- The project has been implemented and operated as per the registered VCS PD;
- The monitoring plan in the registered VCS-PD is as per the applied baseline and monitoring methodology.
- The monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS and CDM requirements

The SOCIAL CARBON “Brazilian Red Ceramic factories Indicators, version 1.1 of 05/09/2013” and the SOCIAL CARBON Methodology have been followed during the verification process of the project “Cenol and Telha Forte Ceramics Switching Fuel Project”, particularly the project is in accordance to the six SOCIALCARBON Resources of the methodology: Social, Human, Financial, Natural, Biodiversity and Carbon.

The conclusions of this report show that the Point Five evaluation, as it was described in the project documentation and SOCIALCARBON Report is in line with all applicable criteria for the verification. All details of the Indicators are accurate and the calculation correct. The SOCIAL CARBON Methodology have been followed during the validation process of the project “Cenol and Telha Forte Ceramics Switching Fuel Project”, particularly the project is in accordance to the six

SOCIALCARBON Resources of the methodology: Social, Human, Financial, Natural, Biodiversity and Carbon.

The conclusions of this report show that the Point Five evaluation, as it was described in the project documentation and SOCIALCARBON Report is in line with all applicable criteria for the verification. All details of the Indicators are accurate and the calculation correct.

It is RINA's opinion that the GHG emission reduction stated in the VCS monitoring report version 05 of 09/03/2022 for the "Cenol and Telha Forte Ceramics Switching Fuel Project" in Brazil for the period 01/11/2017 to 31/12/2020 are fairly stated. The GHG emission reductions were calculated correctly on the basis of the baseline and monitoring methodology, AMS-I.E.: Switch from Non-Renewable Biomass for Thermal Applications by the User – Version 07, of 22/07/2016.

Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/11/2017 to 31/12/2020 amount to 93,003 tCO₂e. Verification period:

Verification period: From 01-November-2017 to 31-December-2020.

SOCIALCARBON verification period: From 01-November-2017 to 31-December-2020.

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

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2017*	4,353	77	0	4,276
2018	27,740	556	0	27,184
2019	29,590	679	0	28,911
2020	33,413	781	0	32,632
Total	95,096	2,093	0	93,003

APPENDIX A: CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS

Table 1. Remaining FAR from validation and/or previous verifications

FAR ID	Section no.	Date:
Description of FAR		
No FAR in the previous verification		
Project participant response		Date:
Documentation provided by project participant		
VVB assessment		Date:

Table 2. CR from this verification

CR ID	1	Section no.	4.1	Date: 06/10/2021
Description of CR				
RINA verified during the remote onsite inspection that for the current monitoring period, Cenol operates with 11 “Paulista”, not in line with Registered PD and MR				
Project participant response				Date: 05/11/2021
<i>The information was rectified in the monitoring report, furthermore an explanation has been included in section 2.3.2.</i>				
Documentation provided by project participant				
<i>Revised MR</i>				
VVB assessment				Date: 30/11/2021
RINA verified that the MR was revised and information is presented as a project description deviation. This CR is closed				

CR ID	2	Section no.	4.1	Date: 06/10/2021
Description of CR				
In the section 3.1 of the VCS report, PP only described the VCS PD for the first crediting period. Not in line with the current verification, that is under the second crediting period.				

Project participant response	Date: 05/11/2021
<i>The information was rectified in the monitoring report, including information about the second crediting period as per VCS PD v.8</i>	
Documentation provided by project participant	
<i>Revised MR</i>	
VVB assessment	Date: 30/11/2021
RINA verified that the MR was correctly revised. This CR is closed	

CR ID	3	Section no.	4.1	Date: 06/10/2021
Description of CR				
PP is requested to clarify the information presented in the section 3.1 of the VCS report is applicable to the current monitoring period: Even though these exceptions may affect a precise calculation of emission reductions, it is considered that a conservative approach has been used to avoid over estimating GHG emission reductions during the period. Also, the ceramics have used exclusively renewable biomass as fuel, thus mitigating their baseline emissions.				
Project participant response				Date: 05/11/2021
<i>Revised MR</i>				
Documentation provided by project participant				
<i>Revised MR</i>				
VVB assessment				Date: 30/11/2021
RINA verified that information was excluded from the MR. This CR is closed				

CR ID	4	Section no.	4.6.1	Date: 06/10/2021
Description of CR				
PP is requested to clarify how data was grouped for the information presented in parameter 1. Diversity /5a/				
Project participant response				Date: 05/11/2021
<i>The calculation methodology for the diversity indicator consists of counting the total number of workers then specifying and quantifying the minority group. At the Cenol and Telha Forte factories, there are five women, six illiterate employees, eight senior employees (more than 60 years old), and four disabled employees among the 220 workers, which correspond to 10% of the total.</i>				
Project participant response (14/01/2022): The section has been fixed, and the corrected spreadsheet has been made available.				
Documentation provided by project participant				
<i>Controle_RAIS_Cenol e Telha Forte 2017-2020 v.2.xls</i> <i>Revised SCR</i>				
VVB assessment				Date: 30/11/2021

Information provided in the CR response is not coherent with the evidence nor the revised SCR.

Spreadsheet presents the information:

Minority Group	11%
Total number of workers	261
Women employees	9
Illiterate employees (A)	7
Senior Employees (I)	9
Disabled employees	4

SCR:

Excluded social groups	Number of workers
Women employees	9
Senior employees	9
Disabled employees	4
Illiterate	7

The Ceramic factories have 220 employees; around 13% of the workers are from excluded social groups.

This CR remains open

2nd response (19/01/2022)

Documents were revised accordingly.

This CR is closed

CR ID	5	Section no.	4.6.3	Date: 06/10/2021
Description of CR				
PP did not present the evidences to confirm that the ceramics have organized controls destination for proceeds, as described in the SCR				
Project participant response				Date: 05/11/2021
<i>The ceramic factories spreadsheet with the destination for proceeds was sent to the verification team.</i>				
Documentation provided by project participant				
Planilha Carbono Despesas e Investimentos Cenol e Telha Forte.xlsx Relatório Carbono Despesas e Investimentos 11-2017 à 12-2020.docx				
VVB assessment				Date: 30/11/2021
PP has provided the controls destination for proceeds. This CR is closed and FAR 1 is raised				

CR ID	6	Section no.	4.6.4	Date: 06/10/2021
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Description of CR	
Some information presented in the MR for the parameter 11 are not correctly described in accordance with the evidences provided	
Project participant response	Date: 05/11/2021
<i>The information was rectified in the SocialCarbon report.</i>	
Documentation provided by project participant	
<i>Revised SCR</i>	
VVB assessment	Date: 30/11/2021
RINA verified that SCR was revised. This CR is closed	

CR ID	7	Section no.	4.6.5	Date: 06/10/2021
Description of CR				
PP is requested to provide the evidences to confirm that CENOL and Telha Forte ceramics control and records production at different stages of the production process (egsales, Ceramic devices that enter in the kiln) and Kiln temperature control: The factory keeps a record of thermocouples or uses digital controls.				
Project participant response				Date: 05/11/2021
<i>The spreadsheets with the ceramic factories production's records evidence were already shown in the site visit. The photos of the electronic thermometer on the kilns, was sent in an attachment.</i>				
Documentation provided by project participant				
<i>Spreadsheet and pictures</i>				
VVB assessment				Date: 30/11/2021
PP has provided the evidences. This CR is closed				

CR ID	8	Section no.	4.6.6	Date: 06/10/2021
Description of CR				
PP is requested to provide the evidences to confirm the score applied in the indicator 16. Stakeholder consultation (During the time period analyzed, the factory conducted a formal (with records) stakeholder consultation, and no negative comments were made regarding the project.), considering the stakeholders: local community, workers, suppliers, local authorities, civil society organizations, and other social parties involved.				
Project participant response				Date: 05/11/2021
<i>The score in the Stakeholder Consultation indicator was lowered in Section 4.6.16 and the Carbon historic analyses due to the lack of formal evidence, and since only a few stakeholders were informed about the project's activity.</i>				
Documentation provided by project participant				
<i>Revised SCR</i>				
VVB assessment				Date: 30/11/2021

RINA verified that SCR was revised to consider the score 2 (two): During the time period analyzed, the factory conducted an informal (no records) stakeholder consultation

This CR is closed

Table 3. CAR from this verification

CAR ID	1	Section no.	4.4	Date: 06/10/2021
Description of CAR				
During the onsite visit RINA verified that the data in the spreadsheet /13/ that is used to input data in the VCU's spreadsheet had many errors for the production for Cenol. PP is requested to revise data for all the monitoring period. For Telha Forte, the following inconsistencies were found in the following days: 06/08/2018, 16/08/2018, 05/11/2018, moreover PP is requested to revised data in the months July, August, September and October 2020.				
Project participant response				Date: 05/11/2021
<i>The production data were revised and corrected in the monitoring spreadsheets for the entire period, and later the data were corrected in the VCS MR Calculation Cenol_Telha Forte_period_07_01 11 2017_31 12 2020_v.2 spreadsheet.</i>				
Documentation provided by project participant				
VVB assessment				Date: 30/11/2021
Pending remote meeting to confirm the revised documents in accordance with evidences.				
Project participant response				Date: 14/01/2022
<i>Both ceramics production reports were revised and corrected once more in the monitoring spreadsheets for the entire period in order to eliminate all inconsistencies of values. Furthermore, several meetings with the audit team were carried out to double check the data. Those meetings happened on 17/12/2021, 29/12/2021 and 07/01/2022, and later the data were corrected in the VCS MR Calculation Cenol_Telha Forte_period_07_01 11 2017_31 12 2020_v.3 spreadsheet.</i>				
VVB assessment				Date: 19/01/2022
RINA verified in the remote meeting that data was correctly revised in accordance with the evidences. This CAR is closed				

CAR ID	2	Section no.	4.4	Date: 06/10/2021
Description of CAR				
During the onsite visit RINA verified that the data in the spreadsheet /13/ that is used to input data in the VCU's spreadsheet had many errors for the biomass: error in data transference, data double accounted, data allocated in different years from the receipt and data not included in the spreadsheet. PP is requested to revise data for all the monitoring period.				
Project participant response				Date: 05/11/2021
<i>The biomass supply data were revised and corrected in the monitoring spreadsheets for the entire period, and later the data were corrected in the VCS MR Calculation Cenol_Telha Forte_period_07_01 11 2017_31 12 2020_v.2 spreadsheet.</i>				

Documentation provided by project participant	
VVB assessment	Date: 30/11/2021
Pending remote meeting to confirm the revised documents in accordance with evidences.	
Project participant response	Date: 14/11/2021
<i>All the fuel purchase receipts for both ceramics factories were revised and corrected in the monitoring spreadsheets for the entire period. Furthermore, several meetings with the audit team were carried out to double check the data. Those meetings happened on 17/12/2021, 29/12/2021 and 07/01/2022, and later the data were corrected in the VCS MR Calculation Cenol_Telha Forte_period_07_01 11 2017_31 12 2020_v.3 spreadsheet.</i>	
VVB assessment	Date: 19/01/2022
RINA verified in the remote meeting that data was correctly revised in accordance with the evidences. This CAR is closed.	

CAR ID	3	Section no.	4.4	Date: 06/10/2021
Description of CAR				
RINA verified that the biomass used in the Cenol project is a blend of sawdust and Açaí pits, not in accordance with MR description. Please, also clarify the specific gravity used for the blend and net calorific value used in the spreadsheet.				
Project participant response				Date: 05/11/2021
<i>The information has been rectified in the calculation spreadsheet. To calculate the proportion between sawdust and açaí pits in the blend transported to Cenol ceramic factory, the representativeness rate of each biomass in the purchase volume was used.</i>				
Documentation provided by project participant				
Revised spreadsheet (VCS MR Calculation Cenol_Telha Forte_period_07_01 11 2017_31 07 2020_v.2.xls) and MR				
VVB assessment				Date: 30/11/2021
RINA verified that the proportion of açaí pits and sawdust was considered in the revised spreadsheet. This CAR is closed				

CAR ID	4	Section no.	4.4	Date: 06/10/2021
Description of CAR				
Rina verified that all biomass is received by Telha Forte and part of it is sent to Cenol. However, in the VCU's calculation, the biomass sent to Cenol is not being discounted and are double accounted.				
Project participant response				Date: 05/11/2021
<i>The information has been rectified in the calculation spreadsheet. The biomass transported to Cenol ceramic factory was deducted from the volume purchased by Telha Forte ceramic factory to avoid double counting.</i>				

Documentation provided by project participant	
Revised spreadsheet (VCS MR Calculation Cenol_Telha Forte_period_07_01 11 2017_31 07 2020_v.2.xls) and MR	
VVB assessment	Date: 30/11/2021
RINA verified that the discount is not correctly applied in December/2017 This CAR remains open	
Project participant response v.02	Date: 17/12/2021
<i>The information has been rectified corrected in the calculation spreadsheet version 3.</i>	
VVB assessment	Date: 19/01/2022
RINA verified that calculation was correctly revised This CAR is closed	

CAR ID	5	Section no.	4.4	Date: 06/10/2021
Description of CAR				
As per the registered PD the parameter “Renewable biomass surplus” is to be monitored annually, however, data presented in the MR is from 2016, not in accordance with the monitoring period				
Project participant response				Date: 05/11/2021
According to the “General guidance on leakage in biomass project activities”, the project participant shall evaluate ex ante if there is a biomass surplus in the region of the project activity, which is not utilized. If it is demonstrated (e.g., using published literature, official reports, surveys etc.) at the beginning of each crediting period that the quantity of available biomass in the region, is at least 25% larger than the quantity of biomass that is utilized including the project activity, then this source of leakage can be neglected; otherwise, this leakage shall be estimated and deducted from the emission reductions. During the monitoring period, Sustainable Carbon annually analysed if the quantity of available biomass in the region (which was determined ex ante), was at least 25% larger than the quantity of biomass that was utilized by the project activity during the monitoring period, as it was and as can be seen in Section 5.3 Leakage. Available at: <http://cdm.unfccc.int/methodologies/SSCmethodologies/AppB_SSC_AttachmentC.pdf>, paragraph 18.				
Documentation provided by project participant				
-				
VVB assessment				Date: 02/12/2021
RINA verified in the registered PDD, section 3.3 that attachment C of appendix B is described. The procedure described by PP was followed. This CAR is closed.				

CAR ID	6	Section no.	4.6.2	Date: 06/10/2021
Description of CAR				

During the remote onsite visit, RINA verified that the benefits described in the parameter 4. Additional employee benefits is not correctly described	
Project participant response	Date: 05/11/2021
<i>The indicator Additional employee benefits has been described more clearly in Section 4.2.4.</i>	
Documentation provided by project participant	
Revised SCR	
VVB assessment	Date: 30/11/2021
RINA verified that the SCR was revised in accordance with data collected during the remote audit. This CAR is closed	

CAR ID	7	Section no.	4.6.6	Date: 06/10/2021
Description of CAR				
During the remote visit, RINA verified that there is only one strategy of green marketing (parameter 17)				
Project participant response				Date: 05/11/2021
Parameter 17 has been corrected according to the evidence presented to the verification team during the remote site visit in Section 4.6. and the Carbon historic analyses.				
Documentation provided by project participant				
Revised SCR				
VVB assessment				Date: 30/11/2021
RINA verified that the SCR was revised in accordance with data collected during the remote audit. This CAR is closed				

FAR ID	1	Section no.	4.6.3	Date: 30/11/2021
Description of CAR				
PP has presented the evidence to confirm that the ceramics have organized controls destination for proceeds. The spreadsheet does not present the dates of the events. Moreover, for better traceability, PP is requested to maintain the evidences of the events described in the controls for the next monitoring period (<i>Planilha Carbono Despesas e Investimentos Cenol e Telha Forte.xlsx; Relatório Carbono Despesas e Investimentos 11-2017 à 12-2020.docx</i>)				
Project participant response				Date: 14/01/2022
<i>The spreadsheet has been updated adding the donation and purchased data. In addition, PP is already organizing and sending the evidences for the next monitoring.</i>				
Documentation provided by project participant				
-				
WB assessment				Date: 19/01/2022
PP has committed to provide the documents for next verification.				


CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES*

 Si attesta che il sig./sig.ra:
 We declare that Mr/Mrs/Ms:

Thais De Lima Carvalho

 è qualificato come:
 is qualified as:

TEC, VAL, VER, TL, ITRP

 per le seguenti aree tecniche:
 for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.1	Thermal energy generation	1
1.2	Renewables	1
2.1	Electricity distribution	2
13.1	Solid waste and wastewater	13

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	19/07/2018	First issue with new template (this certificate is linked to CDM qualification)

 Responsabile di schema
 Scheme Leader
 Rita Valoroso



*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SGS Social Carbon Standard, VCS Verified Carbon Standard.

TEC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

RINA Services S.p.A. è accreditato/riconosciuto da
 RINA Services S.p.A. is accredited /recognized by:

UNFCCC	quali Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects
VCSA	per condurre la Validazione e la Verifica di Progetti VCS to carry out Validation and Verification of VCS Projects
GS Foundation	per condurre la Validazione e la Verifica di Progetti GS to carry out Validation and Verification of GS Projects
Ecologica Institute	per condurre la Validazione e la Verifica di rapporti SGS to carry out Validation and Verification of SGS Reports
American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects


CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES*

 Si attesta che il sig./sig.ra:
 We declare that Mr/Mrs/Ms:

Geisa Maria Principe Branco Saittoni

 è qualificato come:
 is qualified as:

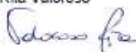
TEC, VAL, VER, TL, ITRP

 per le seguenti aree tecniche:
 for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.1	Thermal energy generation	1
1.2	Renewables	1
13.1	Solid waste and wastewater	13

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	19/07/2016	First issue with new template (this certificate is linked to CDM qualification)

 Responsabile di schema
 Scheme Leader
 Rita Valoroso



*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SOS Social Carbon Standard, VCS Verified Carbon Standard.

TEC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

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VCSA	per condurre la Validazione e la Verifica di Progetti VCS to carry out Validation and Verification of VCS Projects
GS Foundation	per condurre la Validazione e la Verifica di Progetti GS to carry out Validation and Verification of GS Projects
Ecologica Institute	per condurre la Validazione e la Verifica di rapporti SOS to carry out Validation and Verification of SOS Reports
American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects

GHG_QUAL_CERT_EN_07_16 Voluntary(Certificate)

Page 1 of 1