



**Verified Carbon
Standard**

FINAL VERIFICATION REPORT

“BATISOKE SOKE CIMENTO SANAYII T.A.S. 5.5 MW CEMENT WHR PROJECT ”



RINA Services S.p.A.

Project Title	<i>Batisoke Soke Çimento Sanayii T.A.S. 5.5 MW Cement WHR Project</i>
Version	2.0
Report ID	2022TQMD4

Report Title	Final Report of “Batisoke Soke Çimento Sanayii T.A.S. 5.5 MW Cement WHR Project” (No. 816)
Client	Batisoke Soke Cimento San. T.A.S.
Pages	34
Date of Issue	09-11-2023 report issued
Prepared By	RINA Services S.p.A.

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Summary:

RINA Services S.p.A. (RINA), commissioned by Batisoke Soke Cimento San. T.A.S. has verified the greenhouse gas emission reductions reported for the project activity “Batisoke Soke Cimento San. T.A.S. 5.5 MW Cement WHR Project” in Turkey, VCS Registration Reference N° 816, for the period 01/08/2013 to 31/07/2019, with regard to the relevant requirements for CDM and VCS activities. The objective of the verification is to have an independent review ex post determination of the monitored reductions in GHG emission reductions, reported for the “Batisoke Soke Cimento San. T.A.S. 5.5 MW Cement WHR Project” project in Turkey for the period 01/08/2013 to 31/07/2019. Verification was conducted using RINA procedures in line with the requirements specified in the VCS Version 4.2 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 and the resolution of outstanding issues and the issuance of the final verification report and certification. The verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable VCS Version 4.2 requirements, which refer to CDM rules, in order to be certified. In conclusion, it is RINA's opinion that the project activity “Baticim Batı Anadolu Cimento Sanayii A.S. 5.5 MW Cement WHR Project”, in “Turkey”, as described in the Monitoring Report version 06 of 08/11/2023, meets all relevant requirements for VCS and CDM activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology “ACM0012”, “Consolidated baseline methodology for GHG emission from waste energy recovery projects”, version 04.0.0 of 15/04/2011. Hence, RINA is able to certify that the emission reductions from the project

during the monitoring period 01/08/2013 to 31/07/2019 amount to 67,780 tCO₂e. During this monitoring period, 4 CARs/ 1 CR are raised and shared in appendix, also all CARs and CRs are closed.

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1 INTRODUCTION

1.1 Objective

The objective of the verification is to have an independent review ex post determination by a Validation and Verification Body (VVB) of the monitored reductions in GHG emissions that have occurred as a result of the registered VCS project activity during a defined monitoring period. Certification is the written assurance by the VVB that, during a specific time period, a proposed VCS project activity achieved the reductions in anthropogenic emissions by sources of GHGs as verified.

The objective of this verification/certification was to verify and certify emission reductions and effective implementation of the monitoring of sustainable development indicators and mitigation measures, reported for the “Baticim Batı Anadolu Cimento Sanayii A.S. 5.5 MW Cement WHR ” project in Turkey for the period 01/08/2013 to 31/07/2019.

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;
- to evaluate whether all the mitigation measures have been effectively put in place according to the monitoring plan and that all the sustainable development indicators have been correctly monitored.

Verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable VCS Version 4.2 requirements, which refer to CDM rules, in order to be certified.

UNFCCC criteria for CDM refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures, and the subsequent decisions by the CDM Executive Board.

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

All the revisions of the 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. All evidence had been confirmed during online audit with the invoices of electricity generation. The level of assurance is reasonable.

The technical review was performed by a technical reviewer(s) qualified in accordance with RINA's qualification scheme for VCS and CDM validation and verification. The verification team and the technical reviewers consist of the following personnel:

Role/Qualification	Last Name	First Name	Country
VCS Team Leader – VCS Verifier – Technical Expert	Kiratli	Tugce	Turkey
Technical Expert	MARTI	Laura	Italy
Independent Technical Reviewer	Augustus Arokiasamy AMALORPAVANATHAN	Cyril	India

1.4 Summary Description of the Project

Batisoke Soke Cimento San. T.A.S. has commissioned RINA to carry out the verification and certification of emission reductions reported for the registered “*Final Report of “Batisoke Soke Cimento San. T.A.S. 5.5 MW Cement WHR”*” project in Turkey, VCS Registration Reference N° 816, for the period 01/08/2013 to 31/07/2019.

The cement production plant BATISOKE Soke ANADOLU CIMENTO CO. Ltd. is located in Soke District of Aydin province, Exact address is Atatürk Mah. Aydın Cad, Turkey. GPS coordinates of the plant is Latitude 37° 46 13” and Longitude 27° 26 00” E The geographic coordinates of the project activity are confirmed through the registered PDD /1/.

The project shall implement a 5.5 MW waste heat recovery solution at BATISOKE Soke cement plant. It entails the installation of *one 5.5 MW turbine, one 6 MW generator, one AQC boiler and one SP boilers as confirmed through the Generation License /13/.*

AQC boiler is installed next to the kiln head of the cement line, producing superheated steam and hot water. SP boiler is connected to the pre-heater exit, producing a superheated steam. For AQC boiler, the heat-receiving surface of the boiler is divided into three stages: The first stage is main superheated steam stage, and the second stage is low pressure superheated steam stage, and the third stage is hot water stage.

For SP boiler, the heat-receiving surface of the boiler is divided into two stages: The first stage is main superheated steam stage, and the second stage is low pressure superheated steam stage. Water after being deaerated is pumped to AQC boiler second and third stage, and also SP boiler second stage. The outgoing hot water from AQC third stage is used as feed water of AQC boiler second stage and SP boiler first stage. The superheated steam produced in AQC boiler first stage and SP boiler second stage merge together and then is introduced to the turbine mainstream inlet. At the same time, the low pressure superheated steam produced in AQC boiler second stage and SP boiler second stage merge together, and then is introduced to the turbine supplement inlet. The mainstream and low pressure steam is used to promote the turbine for power generation. Exhaust steam of turbine after work is condensed to water, and then pumped to a deaerator, thus a complete thermodynamic circulation system forms.

The generated electricity will be consumed within the plant only, thereby substituting electricity for cement production that would otherwise be purchased from the Turkish power grid. The project will thus lead to indirect reduction of CO₂ emission via reduced plant electricity consumption. Total electricity generation for this monitoring period is 128,951.624 MWh and annual generation is equal to 21,482.13 MWh.

The GHG benefit of the project activity was only accounted under VCS. There are not any other RECs were being issued for the project activity. Furthermore, as a host country in Turkey such any programme like a government-regulated system or programme for the constraint and monetisation of GHG emissions (such as emissions trading scheme, cap and trade or carbon tax mechanisms) has not been implemented.

The generated electricity is used for internal consumption and no generated energy supplied to the National Electricity Transmission Grid of Turkey.

Project Participant(s)	Batisoke Soke Cimento San. T.A.S.		
Project Title	Batisoke Soke Cimento San. T.A.S. 5.5 MW Cement WHR Project		
Location of the project	Atatürk Mahallesi Aydın Caddesi No:234 Soke / AYDIN, Turkey		
Methodology(ies)	"ACM0012", "Consolidated methodology for grid connected electricity generation", version 04.0.0 of 15/04/2011 /6/.		
Sectoral Scope(s)	1 & 4	RINA's Technical Area(s)	1.2 & 4.1
Registered VCS PD	Version 3 of 03/11/2011		
VCS Registration Reference No	816		
Starting date of the crediting period	27/07/2013 (first Crediting period)		
Project's crediting period	From 27/07/2013 to 26/07/2023 (first Crediting period)		
Monitoring period	01/08/2013 - 31/07/2019 (both days included)		
Project documentation link	https://registry.verra.org/app/projectDetail/VCS/816		

2 VERIFICATION PROCESS

The project was validated by TÜV SÜD Industrie Service GmbH, version 03 on 24/04/2012 and it was registered under the VCS registration reference N° 816 for the first crediting period. First crediting period start date is 20/05/2012 and length of crediting period 10 years, once renewable, for a total of 20 years.

2.1 Method and Criteria

Verification was conducted using RINA procedures in line with the requirements specified in the VCS Program Guide Version 4.3 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 the following three phases:

- Document review;
- On-site assessment;
- The resolution of outstanding issues and the issuance of the final verification report and certification.

2.2 Document Review

The monitoring report, version 06 of 08/11/2023 and previous version /2/, the emission reduction calculations provided in the form of a spreadsheet, “Batisöke WHR_ER Calculation_v03.xlsx” version 03 of 06/06/2023 and previous versions /8/, the approved baseline and monitoring methodology ACM0012 version 04.0.0 /6/ and all the documentation provided to support the monitoring period /01 – 16/ were assessed as part of the verification. In addition, the VCS Project Description (VCS PD) /1/, in particular as regards the baseline estimations and the monitoring plan, and the Validation Report of 24/04/2012 /7/ for the project, were reviewed.

The following table lists the documentation that was reviewed during the verification.

/1/	FutureKamp VCS PD for “BATISOKE SOKE CIMENTO SAN. T.A.S. 5.5 MW Cement WHR Project” in Turkey, version 3 of 03/11/2011
/2/	Life Enerji Monitoring report for “Batisöke WHR Project” in Turkey, version 05 of 08/11/2023 Life Enerji Monitoring report for “Batisöke WHR Project” in Turkey, version 05 of 11/07/2023 Life Enerji Monitoring report for “Batisöke WHR Project” in Turkey, version 04 of 06/06/2023 Life Enerji Monitoring report for “Batisöke WHR Project” in Turkey, version 03 of 24/04/2023 Life Enerji Monitoring report for “Batisöke WHR Project” in Turkey, version 02 of 01/07/2022 Life Enerji Monitoring report for “Batisöke WHR Project” in Turkey, version 01 of 01/07/2022
/3/	VCS Verified Carbon Standard: VCS Program Guide, VCS Version 4.2 of 22/06/2022
/4/	VCS Verified Carbon Standard: VCS Standard, VCS Version 4.3 of 22/06/2022
/5/	CDM Executive Board: CDM validation and verification standard for project activities, version 03.0 of 09/09/2021

/6/	CDM Executive Board: Baseline and monitoring methodology “ACM0012”, “Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects”, version 04.0.0 of 15/04/2011.
/7/	TÜV SÜD Industrie Service GmbH validation report for “BATISOKE SOKE CIMENTO SAN. T.A.S.. 9 MW Cement WHR Project” in Turkey, version 3 of 24/04/2012.
/8/	Life Enerji: Emission Reduction Calculation Spreadsheet “Batisöke WHR_ER Calculation_v03.xlsx” version 03 of 06/06/2023 Life Enerji: Emission Reduction Calculation Spreadsheet “Batisöke WHR_ER Calculation_v02.xlsx” version 02 of 24/04/2023 Life Enerji: Emission Reduction Calculation Spreadsheet “Batisöke WHR_ER Calculation_v01.xlsx” version 01 of 01/07/2022
/9/	VCS Verified Carbon Standard: VCS Verification Report Template Version 4.2 of 21/12/2022
/10/	CDM Executive Board: Methodological Tool “Tool to calculate the emission factor for an electricity system”, version 02.2.1 of 29/09/2011 CDM Executive Board: Methodological Tool “Tool to calculate the emission factor for an electricity system”, version 07.0 of 31/08/2018
/11/	Website: https://registry.verra.org/app/projectDetail/VCS/816 ; Argument: Verra Database Language: English; Retrieved on: 22/06/2023
/12/	Electricity Meters technical documentation – user Manuel for 3 electricity meters
/13/	Energy Market Regulatory Authority: Generation License, No: EÜ/3330-14/2021, date of 21/07/2011.
/14/	Law of measurements and calibration, 11/01/1989 and 20056 numbered.
/15/	Ministry of Environment and Forestry: EIA exemption letter, dated on 12/03/2013
/16/	Website: https://registry.goldstandard.org/projects?q=batisoke&page=1 ; Argument: GS Database Language: English; Retrieved on: 21/06/2023

2.3 Interviews

The Plant Manager was interviewed by teleconference during remote audit. To see how the monitoring procedures were implemented, the whole process was explained to the verification team. The carbon consultant was interviewed about the monitoring report and related parameters. Whole process related emission reduction calculation was explained. Because the project is waste heat recovery project there is no harm to the environment, so interviews were conducted only with internal parties.

The key personnel interviewed, and the main topics of the interviews are summarized in the table below.

	Date	Name and Role	Organization	Topic
/1/	21/07/2022	Ekin Kılıç <i>Carbon Consultant</i>	Life İklim ve Enerji LTD. ŞTİ.	Monitoring plan Monitoring methodology Monitoring data Implementation status of the project Monitoring equipment and operation Calibration certificates Emission Reductions calculation Positive and negative impacts of the project activity
/2/	21/07/2022	Celal Sargut <i>Operational Director</i>	Batisöke Söke Çimento Sanayii TAS	
/3/	21/07/2022	Ahmet Omaç <i>Stakeholder</i>	Sazlı Neighborhood	
/4/	21/07/2022	Durmuş Gürsoy <i>Stakeholder</i>	Sazlı Neighborhood	
/5/	21/07/2022	Erkan Öztürk <i>Stakeholder</i>	Sazlı Neighborhood	

			Contact details of the project proponents
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2.4 Site Visits

On 21/07/2022, RINA performed a remote audit for the Batisöke WHR Project plant located in Söke District of Aydın Province of Turkey. During the remote audit for the project, it was confirmed that all the equipment and the systems were accessible. RINA assessed the implementation and operation of the proposed project activity, reviewed the information flows for generating, aggregating and reporting the monitoring parameters, interviewed key personnel of the plant to confirm the operational and data collection procedures, cross-checked between information provided in the monitoring report and data plant, checked the monitoring equipment including calibration performance, reviewed calculations and assumptions made in determining the GHG data and emission reductions, checked the quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

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 monitoring report and emission reductions.

To guarantee transparency a verification protocol has been customized for the project. The protocol shows in a transparent manner the requirements, means of verification and the results from verifying the identified criteria. The verification protocol consists of three tables; the different columns in these tables are described in the figure below (see Figure 1).

A corrective action request (CAR) is raised if one of the following occurs:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient,
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impair the estimate of emission reductions,
- Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.

A clarification request (CR) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements, which refer to CDM rules, have been met.

During this monitoring period, 4 CARs/ 1 CR are raised.

Figure 1 Verification protocol tables

Verification Protocol, Table 1 - Requirement checklist					
Checklist Question	Ref.	MoV	Comments	Draft Conclusion	Final Conclusion
Checklist questions organized in seven different sections.	Makes reference to documents where the answer to the checklist question or item is found.	Explain how conformance with the checklist question is investigated. Examples are document review (DR), interview or any other follow-up actions (I), cross checking (CC) with available information relating to projects, (N/A) means not applicable.	The discussion on how the conclusion is arrived at and the conclusion on the compliance with checklist question so far.	For CAR, CR and FAR see the definitions above.	OK is used if the information and evidence provided is adequate to demonstrate compliance with VCS requirements which refer to CDM rules.

Verification Protocol, Table 2: Resolution of Corrective Action Requests and Clarification			
Corrective action requests and/or clarification requests	Reference to Table 1	Response by project participants	Verification Conclusion
The CAR and/or CRs raised in table 1 are repeated here.	Reference to the checklist question number in Table 1 where the CAR or CR is explained.	The responses given by the project participants to address the CARs and/or CRs.	The verification team's assessment and final conclusion of the CARs and/or CRs.

Verification Protocol, Table 3 - Forward Action Requests		
Forward action request	Reference to Table 1	Response by project participants Verification Conclusion
The FAR raised in table 1 is repeated here.	Reference to the checklist question number in Table 1 where the FAR is explained.	Response by the project participants on how forward action request will be addressed.

2.5.1 Forward Action Requests

According to previous validation Report [/7/](#), no FAR is raised.

2.6 Eligibility for Validation Activities

The project activity is registered under VCS registration reference Number 816 [/11/](#); hence this section is not applicable.

3 VALIDATION FINDINGS

In the registered VCS PD for “Batisoke Soke Cimento San. T.A.S. 5.5 MW Cement WHR Project ” in Turkey, version 03 of 03/11/2011 /1/, the project activity contains one 5.5 MW turbine with 6 MW generator, ONE AQC boiler, one SP boilers.as confirmed through the Generation License /13/. The average electricity generation is estimated as 35,00 MWh as per the registered VCS PD /1/. The additionality of the project activity is demonstrated by applying investment analysis registered VCS PD /1/.

The project was validated by TÜV SÜD on 24/04/2012 and /7/ and it was registered under the VCS registration reference N° 816.

3.1 Participation under Other GHG Programs

The project activity is not participated under other GHG Programs as confirmed through the websites of the standard /11/. Also other voluntary schemes are reviewed and there is no evidence that project is under another schemes. /16/

3.2 Methodology Deviations

There is no methodology deviation in this monitoring period or previous monitoring periods.

3.3 Project Description Deviations

Information in PD	Deviation from PD in MR
Two meters will be placed (one main and one reserve) at the power plant.	There are 3 electricity meters.(to see net electricity generation, gross electricity generation and auxiliary consumption)
Start date of the Project is 20/05/2012. Crediting period is between 20/05/2012 and 19/05/2022.	Start date of the Project is 27/07/2013. Crediting period is between 27/07/2013 and 26/07/2023.
Electricity meters are sealed by TEIAS. Meters are read by TEIAS staff monthly.	The electricity produced at the facility is not for sale, all of the electricity produced is used for the facility's own electricity needs. Therefore, it is not obligatory for the meters in the facility to be sealed and controlled by the state (TEIAS). Technicians in BATISOKE conduct daily meters readings and keep records for electricity generation amount and reports to management. These records can be used for monitoring in case of any problem will arise in meters.
Monthly meter reading records will be taken from PMUM (Market Financial	Main data is gross and net electricity data (logbook) that is recorded by project owner because the project is a captive

Settlement Centre). Measurement results will be crosschecked with records for sold electricity.	power plant. TEIAS records (monthly net and gross electricity generation data) are available for cross check.
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3.4 Grouped Project

This project is not a grouped project. Hence, this section is not applicable.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

It was verified during remote audit on 21/07/2022 that the proposed project activity has been implemented and it is in operation in accordance to the project activity described in the registered VCS PD [/1/](#).

The carbon crediting period and therefore the monitoring starts when the plant commences electricity generation. Therefore, the first crediting period started on 27/07/2013. The second crediting period will start on 26/07/2023.

The project activity consists of one 5.5 MW turbine with 6 MW generator, one AQC boiler, one SP boiler as confirmed through the Generation License [/13/](#). The project boundary in the registered VCS PD [/1/](#) is in line with the actual project boundary. The generated electricity will be consumed within the plant only, thereby substituting electricity for cement production that would otherwise be purchased from the Turkish power grid. The geographic coordinates of the project activity are confirmed through the registered PDD [/1/](#).

There are not any material discrepancies between project implementation and the project description. It is verified that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan. The project activity is not participated or rejected under other GHG Programs as confirmed through the websites of the standard [/11/](#) [/16/](#). No GHG related environmental credits are applied to the Turkish power sector.

The GHG benefit of the project activity was only accounted under VCS. There are not any other RECs were being issued for the project activity. Furthermore, as a host country in Turkey such any programme like a government-regulated system or programme for the constraint and monetisation of GHG emissions (such as emissions trading scheme, cap and trade or carbon tax mechanisms) has not been implemented. There are no material discrepancies between the actual monitoring system and plan. The project contributes to SDG 7 by generating electricity from clean energy. The project also greatly supports sustainable economic development in the region. In accordance with SDG 8, employment was created during the construction and operation phases of the power plant. Compared to the business-as-usual scenario, which is considered a contribution to SDG 13, it has a significant contribution to reducing carbon emissions and protecting the climate. Therefore, the project has positive effects on sustainable development.

4.2 Safeguards

4.2.1 No Net Harm

There hadn't been any observed significant environmental impact of the project activity as indicated in the registered PD and this was also confirmed through the reviewed documents. The EIA exemption Decision dated as 12/03/2013 by the Provincial Directorate of Environment and Urbanization /15/.

4.2.2 Local Stakeholder Consultation

As the project boundary is in the border of the plant, project does not have any impact on environment and local people. Also in the project waste heat which already exists in the plant will be used for electricity generation and the generated electricity is used in the plant for internal consumption. So all the project activities take place within the boundary of the plant.

In addition, there is no national requirement for conducting any local stakeholder meetings. With no external parties being affected by any effects from the project, no meeting is conducted.

Ongoing communication with the stakeholders is the responsibility of the corporate communication manager at the factory. The headman of Sazlı village has the contact details of the corporate communication manager. Stakeholders can reach the project owner through the mukhtar when they have any complaints or suggestions. So far there has been no feedback from stakeholders.

4.3 AFOLU-Specific Safeguards

This project is not an "Agriculture, Forestry and Other Land Use (AFOLU)" project.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The emission reduction calculations provided in the spreadsheet /8/ have been verified to be correct and in line with the registered VCS PD /1/.

According to the applied methodology "ACM0012", "Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects", version 04.0.0 of 15/04/2011 /6/, the emission reductions have been calculated based on the following formula:

$$ER_y = BE_y - PE_y - LE_y$$

Where:

BE_y = Baseline emissions in year y (tCO₂e/yr)

PE_y = Project emissions in year y (tCO₂e/yr)

LE_y = Leakage emissions in year y (tCO₂e/yr)

Baseline emissions

As per ACM0012 baseline emissions shall be generally calculated using the following formula:

$$BE_y = BE_{En,y} + BE_{flst,y}$$

Where:

BE_y = The total baseline emissions during the year y in tCO2

$BE_{En,y}$ = The baseline emissions from energy generated by the project activity during the year y in tCO2

$BE_{flst,y}$ = Baseline emissions from fossil fuel combustion, if any, either directly for flaring of waste gas or for steam generation that would have been used for flaring the waste gas in the absence of the project activity (tCO2).

$BE_{flst,y}$ is not applicable as there is no such direct/indirect utilization of fossil fuels for flaring of waste gas. Therefore the BE_y is identical to $BE_{En,y}$.

According to project type and respective procedures and formulae in ACM00012, the following calculations apply:

For calculation of baseline emissions from energy generated by the project activity:

$$BE_{En,y} = BE_{Elec,y} + BE_{Ther,y}$$

Where:

$BE_{Elec,y}$ = Baseline emissions from electricity during the year y in tCO2

$BE_{Ther,y}$ = Baseline emissions from thermal energy

$BE_{Ther,y}$ is not applicable as there is no such heat generation involved

Therefore the $BE_{En,y}$ is identical to $BE_{Elec,y}$.

For calculation of baseline emissions from electricity ($BE_{Elec,y}$) generation:

$$BE_{Elec,y} = f_{cap} * f_{wcm} * \sum_j \sum_i (EG_{i,j,y} * EF_{Elec,i,j,y})$$

Where:

$BE_{elec,y}$ = Baseline emissions due to displacement of electricity during the year y (tCO2)

$EG_{i,j,y}$ = The quantity of electricity supplied to the recipient j by generator, which in the absence of the project activity would have been sourced from source i (the grid or an identified source) during the year y in MWh

$EF_{elec,i,j,y}$ = The CO2 emission factor for the electricity source i (for grid and an identified source), displaced due to the project activity, during the year y (tCO2/MWh)

F_{wcm} = Fraction of total electricity generated by the project activity using waste energy. This fraction is 1 if the electricity generation is purely from use of waste energy.

F_{cap} = Factor that determines the energy that would have been produced in project year y using waste energy generated at a historical level, expressed as a fraction of the total energy produced using waste source in year y. The ratio is 1 if the waste energy generated in project year y is the same or less than that generated at a historical level.

As f_{wcm} has the value “1” (electricity is purely from use of waste energy), the consolidated calculation reads as follows:

Consolidated formula for calculation of baseline emissions:

$$BE_y = f_{cap} * \sum_j \sum_i (EG_{i,j,y} * EF_{Elec,i,j,y})$$

For f_{cap} , in ex-ante calculations of emission reductions, a neutral value of “1” is applied.

$$BE_y = \sum_j \sum_i (EG_{i,j,y} * EF_{Elec,i,j,y})$$

$$\text{So emission reduction } ER_y = BE_y = \sum_j \sum_i (EG_{i,j,y} * EF_{Elec,i,j,y})$$

Project emissions

Project Emissions are calculated as follows according to ACM0012 version 04.0.0 of 15/04/2011 /6/ as defined in the validated VCS PD /1/.

$$PE_y = PE_{AF,y} + PE_{EL,y}$$

Where:

PE_y = Project emissions due to the project activity (tCO2)

$PE_{AF,y}$ = Project activity emissions from on-site consumption of fossil fuels by the unit process(es) and/or co-generation plant(s) if they are used as supplementary fuels due to non-availability of waste energy to the project activity or due to any other reason (tCO2)

$PE_{EL,y}$ = Project activity emissions from on-site consumption of electricity for gas cleaning equipment or other supplementary electricity consumption (tCO2).

$PE_{AF,y}$ is zero as there is no technologically possible supplementary fossil fuel consumption at the project's electricity generating facilities.

$PE_{EL,y}$ is zero as the project there will be no emissions from consumption of electricity for gas cleaning or other supplementary electricity consumption. Project emissions due to the project activity has been assumed to be zero as per the ACM0012 version 04.0.0 of 15/04/2011 /6/ as defined in the validated VCS PD /1/.

Leakage emissions

The leakage emissions are assumed to be zero as per the ACM0012 version 04.0.0 of 15/04/2011 /6/ as defined in the registered VCS PD /1/.

The data presented in the monitoring report /2/ 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. Sufficient evidence was presented and verified by RINA for the reported emission reductions.

Parameters Available at Validation and Data Fixed Ex-ante

Data/ Parameter	Source of data	Reported value for the project period	Assessment/Observation
EF _{elec i,j,y} Baseline emission factor (for the first crediting period)	TEIAS statistics	0.5267 tCO ₂ /MWh	According to the approved methodology ACM0012 version 04.0.0, the combined emission factor has been determined using the ex-ante option and so it is not requested to monitor and recalculate the emission factors during the crediting period. The emission factor is determined to be 0.5267 tCO ₂ /MWh in the VCS PD /1/ and validation report /7/.

Parameters and Data Monitored

DATA/PARAMETER	EG _{i,j,y}
Data Unit	MWh/y
Description	Quantity of net electricity generation supplied by the project plant/unit in year y
Source of data	Electricity meters
Description of measurement methods and procedures to be applied	EG _{i,j,y} is measured by electric meter with accuracy of 0.2S continuously.
Frequency of monitoring/recording	Continuously monitoring and monthly recording
Value monitored	128,951.62 MWh for MP.
Monitoring equipment	3 unit's electricity meters (one for electricity, one for net electricity and one for auxiliary electricity consumption) are installed at the project site. Electricity meter for net electricity generation: Model: DSSD331, Manufacturer: Wasion Group Ltd. Serial No: 1110087799000002, Accuracy: 0.2 S Calibration date: 27/05/2023 Electricity meter for GROSS electricity generation: Model: DSSD331, Manufacturer: Wasion Group Ltd. Serial No: 1110087799000001, Accuracy: 0.2 S Calibration date: 27/05/2023 Electricity meter for auxiliary electricity consumption:

	Model: DSSD331, Manufacturer: Wasion Group Ltd. Serial No: 1110087799000003, Accuracy: 0.2 S as confirmed through technical documents of the electricity meters /12/. Calibration date: 27/05/2023. WHR facility was installed and calibrated electricity meters was implemented in 2013 during project implementation until the last calibration date (27/05/2023) no calibration process was conducted. According to paragraph 176 of the Validation and Verification Manual particularly with regard to the calibration requirements, the designated operational entity (DOE) shall verify that the calibration of measuring equipments is conducted at a frequency specified in applied monitoring methodology and the monitoring plan. In addition UNFCCC Annex 60 Clause 4 state that “If during verification of a certain monitoring period, the DOE identifies that the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available), the DOE may conclude its verification, provided the following conservative approach is adopted in the calculation of emission reductions: (a) Applying the maximum permissible error of the instrument to the measured values , if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error so to correct emission reductions for the whole monitoring period where calibration is missing, the highest accuracy error among measured and manufacturer’s specification that is %0.2 was applied and emission reductions are recalculated.
QA/QC procedures to be applied	Net electricity generation of the plant recorded by Batisöke personnel. Meter data showing auxiliary consumption will be subtracted from meter data showing gross production, and a crosscheck will be made between the result and meter data showing net production. In addition, TEIAS records (monthly net and gross electricity generation data) are also available for cross check. According to Law of measurements and calibration number of 3516 Clause 3 section e explain the rules for electricity meters periodical control exemptions for manufacturing industries for internal consumption /14/. If any major discrepancy occurs between the three meters, TEIAS performs necessary calibration. The meters have been active since on 2012 as confirmed through the approved PDD /1/. During on-site assessment, it was confirmed that the meters are in place and functions well. During the monitoring period, no breakdown has been recorded.
Purpose of the data	To calculate the baseline emission value
Calculation method	-
Comments	-

DATA/PARAMETER	f_{wcm}
Data Unit	Fraction
Description	Fraction of total energy generated by the project activity using waste energy.
Source of data	Feasibility Study
Description of measurement methods and procedures to be applied	The ACM0012 methodology refers to waste gas, but from the context it is clear that this value refers to waste energy resource in general. In the case of the project activity f_{wcm} has been interpreted therefore as the fraction of total energy generated using waste heat. The methodology prescribes that this fraction is 1 if the electricity generation is purely from use of the waste energy resource (i.e. waste heat).

Frequency monitoring/recording of	-
Value monitored	1
Monitoring equipment	3 unit's electricity meters (one for electricity, one for net electricity and one for auxiliary electricity consumption) are installed at the project site. Electricity meter for net electricity generation: Model: DSSD331, Manufacturer: Wasion Group Ltd. Serial No: 1110087799000002, Accuracy: 0.2 S Calibration date: 27/05/2023 Electricity meter for GROSS electricity generation: Model: DSSD331, Manufacturer: Wasion Group Ltd. Serial No: 1110087799000001, Accuracy: 0.2 S Calibration date: 27/05/2023 Electricity meter for auxiliary electricity consumption: Model: DSSD331, Manufacturer: Wasion Group Ltd. Serial No: 1110087799000003, Accuracy: 0.2 S as confirmed through technical documents of the electricity meters /12/. Calibration date: 27/05/2023.
QA/QC procedures to be applied	-
Purpose of the data	-
Calculation method	-
Comments	-

DATA/PARAMETER	F_{cap}
Data Unit	Fraction
Description	Energy that would have been produced in project year y using waste heat generated in base year expressed as a fraction of total energy produced using waste energy in year y.
Source of data	Test report / feasibility study
Description of measurement methods and procedures to be applied	The value of f_{cap} has been calculated ex-ante on the basis of the output that can be theoretically be produced on the basis of available waste heat when the cement line is operated under normal load factors and projected power output.
Frequency monitoring/recording of	-
Value monitored	1
Monitoring equipment	3 unit's electricity meters (one for electricity, one for net electricity and one for auxiliary electricity consumption) are installed at the project site. Electricity meter for net electricity generation: Model: DSSD331, Manufacturer: Wasion Group Ltd. Serial No: 1110087799000002, Accuracy: 0.2 S Calibration date: 27/05/2023 Electricity meter for GROSS electricity generation: Model: DSSD331, Manufacturer: Wasion Group Ltd. Serial No: 1110087799000001, Accuracy: 0.2 S Calibration date: 27/05/2023

	Electricity meter for auxiliary electricity consumption: Model: DSSD331, Manufacturer: Wasion Group Ltd. Serial No: 1110087799000003, Accuracy: 0.2 S as confirmed through technical documents of the electricity meters /12/ . Calibration date: 27/05/2023.
QA/QC procedures to be applied	-
Purpose of the data	-
Calculation method	-
Comments	-

Data / Parameter	Abnormal operation
Data unit	-
Description	Abnormal operation of the project facility including emergencies and shut down
Source of data	Operation of project facility
Description of measurement methods and procedures to be applied	The hours of abnormal operation of parts of project facility that can have an impact on waste energy generation and recovery
Frequency of monitoring/recording	<i>Daily, aggregated annually</i>
Value monitored	<i>There is no abnormal operation of parts of project facility that can have an impact on waste energy generation and recovery during this monitoring period.</i>
Monitoring equipment	-
QA/QC procedures to be applied	-
Purpose of the data	-
Calculation method	-
Comments	-

Emission Reductions Achieved

The emission reductions calculation reported in the Monitoring Report version 06 of 08/11/2023 [/2/](#) and calculation spreadsheet “Batisöke WHR_ER Calculation_2022_v03.xlsx” version 03 of 06/06/2023” [/8/](#) have been verified to be correct.

The emission reductions from the project for the monitoring period from 01/08/2013 to 31/07/2019 as reported in the Monitoring Report version 06 of 08/11/2023 [/2/](#) is equivalent to 67,780 tCO₂e.

All data were examined without sampling and it was seen that there was no error in data transfer. RINA confirmed that GHG emission reductions and removals have been quantified correctly in accordance with the project description and applied methodology.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

Net electricity generation of the plant recorded by Batisöke personnel. Meter data showing auxiliary consumption will be subtracted from meter data showing gross production, and a crosscheck will be made between the result and meter data showing net production. In addition, TEIAS records (monthly net and gross electricity generation data) are also available for cross check. According to Law of measurements and calibration number of 3516 Clause 3 section e explain the rules for electricity meters periodical control exemptions for manufacturing industries for internal consumption [/14/](#). If any major discrepancy occurs between the three meters, TEIAS performs necessary calibration. The meters have been active since on 2013 as confirmed through the approved PDD [/1/](#). During on-site assessment, it was confirmed that the meters are in place and functions well. During the monitoring period, no breakdown has been recorded.

RINA confirmed that quantity, and appropriateness of quality, of the evidence used to determine the GHG reductions and removals are found sufficient.

4.6 Non-Permanence Risk Analysis

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

5 VERIFICATION OPINION

RINA Services Spa (RINA) has performed verification of the emission reductions reported for the project activity “Batisoke Soke Cimento San. T.A.S. 5.5 MW Cement WHR Project” in Turkey, VCS Registration Reference N° 816, for the period 01/08/2013 to 31/07/2019, with regard to the relevant requirements for CDM and VCS activities.

It is RINA’s opinion that the GHG emission reductions stated in the Monitoring Report version 06 of 08/11/2023 for the “Batisoke Soke Cimento San. T.A.S. 5.5 MW Cement WHR Project” in Turkey for the period 01/08/2013 to 31/07/2019 are fairly stated. The GHG emission reductions were calculated correctly on the basis of the approved monitoring methodology “ACM0012 “Consolidated baseline methodology for GHG emission from waste energy recovery projects”, version 04.0.0 of 15/04/2011 and the monitoring plan contained in the registered VCS PD.

The project has been verified to comply with the validation criteria for the projects and the greenhouse gas emission reductions or removals specified in VCS version 4.3. It is also confirmed that the level of assurance of this verification report is reasonable.

Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/08/2013 to 31/07/2019 amount to 67,780 tCO₂e. Verification period: From 01/08/2013 to 31/07/2019 (for the first crediting period)

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)	Ex-ante emissions reductions /removals	Difference %
2013 (01/08/2013 31/12/2013)	4,292	0	0	4,292	10,554	59.33
2014	12,387	0	0	12,387	25,180	50.81
2015	13,441	0	0	13,441	25,180	46.62
2016	12,051	0	0	12,051	25,180	52.14
2017	9,149	0	0	9,149	25,180	63.67
2018	10,619	0	0	10,619	25,180	57.83
2019	5,841	0	0	5,841	14,625	60.06
Total (01/08/2013 31/07/2019)	67,780	0	0	67,780	151,079	55.14

The emission reductions from the project for the MP as reported in the MR is equivalent to 67,780 tCO₂. The reported emission reductions are lower (55.14%) than the estimated emission reduction of 151,079 tCO₂ for the MP. Due to the technical issues ER and electricity generation is lower than expected so project is still additional. The cause of reduction in electricity and ER is “The hot gas that is normally released when the clinker kiln produces is drawn into both the coal mill and the raw material (raw meal) mill and used in drying. When coal and raw meal mills come to a peak stop at the end of their production cycle, the amount of heat released increases. For this reason, when designing the WHR facility, it was designed according to this maximum heat released. However, in reality, as the mills come on and off during the day, the amount of heat absorbed by the WHR facility becomes lower. For this reason, the production amount cannot reach the maximum design. In fact, when you look at it, the system continued to work as planned in terms of production. Since the system is planned to be manufactured according to the maximum heat value in order to stay on the safe side, it does not actually approach this production value since the amount of heat of the gas it draws is low under normal conditions.”

APPENDIX 1: <CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS>

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

FAR ID	1	Section no.		Date:	
Description of FAR					
Project participant response				Date:	
Documentation provided by project participant					
DOE assessment				Date:	

Table 2. CR from this verification

CR ID	1	Section no.	1.1	Date: 20/04/2023
Description of CR				
Please correct the listed issues given below: Provisional acceptance date is 27/07/2013 and this date is also defined as the project start date. Monitoring period start date is 01/08/2013 is differ from 27/07/2013. Please explain the reason and support by evidence.				
Project participant response				Date: 24/04/2023
In order for the electricity generation data to be taken from the beginning of the month and the result to be an integer, the data of 3 days were not taken.				
Documentation provided by project participant				
DOE assessment				Date: 24/04/2023
Hence CR ID 1 is closed.				

Table 3. CAR from this verification

CAR ID	1	Section no.		Date: 20/04/2023
Description of CAR				
1- Template for project is not up to date. Please use the updated version of template <i>Monitoring Report Template, v4.2</i> , last update on 21/12/2022.				
Project participant response				Date: 24/04/2023
VCS released the new template after the project's site visit and initial findings. Therefore, the report is prepared according to the Version 4.1.				
Documentation provided by project participant				
DOE assessment				Date: 24/04/2023
Hence CAR ID 1 is closed.				

CAR ID	2	Section no.	1	Date: 20/04/2023
Description of CAR				
1- Please add the evidences for number 6 and 7 (Table 1 Milestone of Batisöke) 2- Please explain the why you chose the project start date 27/07/2013 with evidence in Section 1.5.				
Project participant response				Date: 24/04/2023
1.Reference has been inserted for the number 6. Regarding the number 7, in order for the electricity generation data to be taken from the beginning of the month and the result to be an integer, the data of 3 days were not taken. 2. In order for the electricity generation data to be taken from the beginning of the month and the result to be an integer, the data of 3 days were not taken.				
Documentation provided by project participant				
DOE assessment				Date: 24/04/2023
1- It is added. 2- It is reasonable				
Hence CAR ID 2 is closed.				

CAR ID	3	Section no.	3 - 5	Date: 20/04/2023
Description of CAR				
1- Please share the technical data sheet of equipment to present the proofs of Table 4 key technical components of the project, Table 3.2 (Energy Data) and Table 3.3 (Efficiency data and power factor).				
Project participant response				Date: 24/04/2023
Those are validated by VVB and VCS during the validation process of the project and table 3.2, table 3.3 are taken from validated PD. Related reference to PD has been inserted to MR.				
Documentation provided by project participant				
DOE assessment				Date: 24/04/2023
1- It is provided				
Hence CAR ID 3 is closed.				

CAR ID	4	Section no.	4.2;	Date: 20/04/2023
Description of CAR				
Please correct the issues, 1- Please add the dates of electricity meter implementation on site and share regulation for calibration frequency or exemption reason etc. Moreover share the dates of calibration in manufacturing phase.				
Project participant response				Date: 24/04/2023

The meters are delivered integrated with the whole system, they are of CHINA origin and there is no authorized service or calibration authority in Turkey. The electricity produced is not used in sales, so a calibration certificate is not provided with the meters and calibration is not mandatory. The entire WHR system and other measurement and control devices, which are the sub-parts of this system, were considered as a single complicated system and were first maintained, calibrated and ready for use, and were received together at the time of delivery of the facility.

Documentation provided by project participant

DOE assessment **Date:** 24/04/2023

Hence CAR ID 4 is closed.

CAR ID 5 **Section no.** 5 **Date:** 20/04/2023

Description of CAR

Please correct the issues,
1- All values and transactions should be detailed with formulas and shown in calculation sheet for electricity generation and emission reduction.

Project participant response **Date:** 24/04/2023

Those had already been applied in ER excel.

Documentation provided by project participant

DOE assessment **Date:** 24/04/2023

Excel sheet is revised.

Hence CAR ID 5 is closed.

Table 4. FAR from this verification

FAR ID	Section No.	Date:
Description of FAR		
Project participant response		Date:
Documentation provided by project participant		
DOE assessment		Date:



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:

Tugce Kiratli

è qualificato come:
 is qualified as:

TEC, VAL, VER, TL, ITRP
 LOCAL EXPERT

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

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORIAL SCOPE
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
1	09/06/2017	Added qualification as ITRP and Local Expert

Responsabile di schema
 Scheme Leader
 Laura Severino



*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SCS 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	come 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 SCS to carry out Validation and Verification of SCS 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



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:

Cyril Augustus Arokiasamy Amalorpavanathan

è qualificato come:
is qualified as:

TEC, VAL, VER, TL, Local Expert, 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
3.1	Energy demand	3
5.1	Chemical industry	5
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)
2	09/10/2017	Qualification update as ITRP

Responsabile di schema
Scheme Leader
Laura SEVERINO



*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SCS 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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RINA Services S.p.A. is accredited /recognized by

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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 SCS to carry out Validation and Verification of SCS 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
QUALIFICATION CERTIFICATE**

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

Laura MARTI

è qualificato come¹:
Is qualified as:

CDM TEC

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

4.1

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
4.1	Cement and Lime production	4

In accordo alle Istruzioni dell'unità Certificazione Innovazione e Sostenibilità.
In accordance with the Instructions of the Certification, Innovation & Sustainability Unit.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	09/09/2020	First issue

Il Resp. CEINS
Head of CEINS



¹ Legend:

VAL:	Validator	CDM: Clean Development Mechanism
VER:	Verifier	VCS: Verified Carbon Standard
TEC:	Technical Expert	GS4GG: Gold Standard For Global Goals
TL:	Team Leader	SCS: SocialCarbon Standard
FIN-EXP:	Financial Expert	Ji: Joint Implementation
DET:	Determiner	

RINA Services S.p.A. è accreditata da UNFCCC, quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM, da VCSA per condurre la Validazione e la Verifica di Progetti VCS, da GS Foundation, per condurre la Validazione e la Verifica di Progetti GS, da Ecologica Institute per condurre la Validazione e la Verifica di rapporti SCS.

RINA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS4GG Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports.

GHG_QUAL_CERT_EN(07-2018)

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