# PROJECT REIGNITE: TURNING FARM WASTE TO CLIMATE ACTION

# METHODOLOGY UPGRADE VERIFICATION

| | |
|---|---|
| Report ID | 2025 GQ CE 1382 |
| Project title | Project Reignite: Turning Farm Waste to Climate Action |
| Project ID | 4679 |
| Crediting period | 16-October-2023 to 30-June-2024 |
| Monitoring periods verified for requantification | 16-October-2023 to 30-June-2024 |
| Original date of issue | 3/11/2025 |
| Most recent date of issue | 20/02/2026 |
| Version | 1.1 |
| *VCS Standard* Version | 4.7 |

| | |
|---|---|
| Current applied methodology | VM0044 1.1 |
| New applied methodology | VM0044 1.2 |
| Client | SRCNatura Sure Pvt. Ltd. |
| Prepared by | RINA Services S.p.A |
| Approved by | Laura Severino, (Authorized officer signing for the VVB) |
| Work carried out by | Team Leader, Verifier, Technical Expert (TA 13): Vinay Singh<br>Technical Reviewer: Cyril Augustus AA |


**Summary:**

RINA Services S.p.A. (RINA) was contracted by M/s SRCNatura Sure Pvt. Ltd. to conduct Re-quantification verification of the registered project "Project Reignite: Turning Farm Waste to Climate Action", "VCS Project ID 4679 against VCS standard version 4.7 /5/ to upgrade the project from methodology VM0044 v1.1 to VM0044 v1.2.

The project is about involving the farmers to utilize agricultural waste to convert it into biochar by applying flame curtain pyrolysis method in steel-shield soil pits in India.

The objective of the verification work is to evaluate the changes in requirements of the latest version of the methodology and evaluate if the project complies with the requirements of the VCS Methodology VM0044 Version 1.2/7/, based on the updated VCS PD and Requantification Report /52/ 53/. The verification period being quantified complies with VCS Standard version 4.7 and VCS methodology VM 0044 version 1.2 of 27 June 2025.

VCS methodology Biochar Utilization in Soil and Non-Soil Applications VM0044, Sectoral Scope 13 Version 1.2 Published on 27 June 2025 /57/ has two changes compared with its earlier version 1.1. The 2 changes are listed below:

1. Updating the additionality demonstration procedure (Section 7) by inclusion of Inclusion of Step 3: Investment Analysis for the additionality analysis
2. Adoption of latest current VCS methodology template

This requantification verification focuses on the first change i.e. financial additionality demonstration of the project. In particular, the Investment Analysis for the additionality analysis. The second change is a template change which does not require an evaluation in regards to the project.

RINA Services S.p.A. (RINA) now has enough proof to confirm that the stated criteria have been met after reviewing the requantification report /53, emission reduction sheets/4/ and additional documents pertaining to monitoring methodology, as well as after conducting background research, conducting follow-up interviews, and speaking with stakeholders and no uncertainties are involved.

After reviewing the Requantification Report and ER sheet /53 /4, it was confirmed that there are no changes in emission removals from the verification period and previously reported quantified removals are sufficient, conclusive, and presented in a clear and understandable way.

It is confirmed by the assessment team that the project is financially additional and is supported by satisfactory evidence.

This verification has been carried out using a risk-based methodology. 0 Corrective Action Requests (CARs) and 06 Clarification Requests (CRs) were raised during verification and successfully closed. FAR was not raised during this verification period.

The project has been successfully requantified, and further certified for methodology upgrade under VCS as it meets the criteria outlined by the VCS Requantification Verification Report template version v1.0, VCS Requantification Report template version 1.0/, the VCS Standard version 4.7/39/, and the applied methodology VM0044, Version 1.2/53/.

Our view refers to the project's claimed GHG emissions, GHG emission removals as a result, and to the project's legitimate baseline, monitoring, additionality and supporting documents. Based on the information viewed and assessed, VVB confirms that the project activity "Project Reignite: Turning Farm Waste to Climate Action", achieved emission removals by 115,103 $tCO_2e$ from 16th October 2023- 30th June 2024 (both days included) and complies with VM 0044 v1.2.

# CONTENTS

# 1 INTRODUCTION

## 1.1 Objective

RINA Services S.p.A. (RINA) has been commissioned by SRCNatura Sure Pvt. Ltd. to perform an independent requantification verification assessment of the project titled – "Project Reignite: Turning Farm Waste to Climate Action" (VCS ID- 4679). The audit team reviewed the updated project description and requantification report, reviewed supporting project documentation to verify if the project complies with the updated version of the methodology VM 0044 1.2.

## 1.2 Scope and Criteria

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. The verification scope is to review the updated VCS PD and Requantification Report against the VCS criteria which refers to VCS Version 4.7 standard and all the GHG program requirements/06/ along with the updated methodology VM47 and Requantification Verification procedures. Verification assessment 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 VCS PD.

In the case of VCS project activities, the scope is set by:

- VCS v4.7 standard/04/ requirements
- VCS Validation and Verification Manual v3.2
- Clean Development Mechanism Validation and Verification Standard (VVS) for project activities, v3.0/06/
- Baselines and monitoring methodologies (including GHG inventories)/05/
- Environmental issues relevant to the applicable sectoral scope
- Current technical and operational knowledge of the specific sectoral scope and information on best practice
- Stakeholder consultation and feedback

The assessment team has employed a risk-based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the VCS PD/52/ and Requantification Report /53. The focus of the assessment team is to identify the significant risks for the project implementation and the generation of VCUs.

## 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 the VVB's instructions.

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 level of assurance of the verification report is defined as "reasonable". The VVB confirms that a reasonable level of assurance has been achieved during the verification process.

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

| Role | Last Name | First Name | Country |
|---|---|---|---|
| Team Leader, Verifier & Technical Expert TA 13,<br><br>Financial Expert | Singh | Vinay | India |
| Technical Reviewer | Amalorpavanathan | Cyril A A | India |
| Approver | Severino | Laura | Italy |

# 2 REQUANTIFICATION VERIFICATION PROCESS

## 2.1 Method and Criteria

Verification was conducted using RINA procedures in line with the requirements specified in the VCS Standard version 4.7/04/ and CDM VVS v3/06/. Verification process was initiated by following the updated VCS PD, Requantification Report, and applicable methodology VM 0044 "Methodology for Biochar Utilization in Soil and Non-Soil Applications v1.2., dated 25 June 2025, Sectoral scope *13/57/.*

The verification started with a desk review of the submitted updated VCS PD along with VCS Requantification Report. Upon completion of the desk review by the team lead, the PP's representatives were invited to the RINA office for an interview. Following the interview, CLs were raised to clarify and provide evidences. Following that, the project was verified for the methodology upgrade in line with Requantification Procedure.

## 2.2 Document Review

VVB audit team cross verified the documentation and discussed the same with PP during direct interview and meeting. Also, the technical equipment and its details were cross verified with the documents provided by PP. The following additional documentation, provided by project personnel in support of the aforementioned documents, was also reviewed by the audit team is mentioned in *Appendix II* of this report.

## 2.3 Interviews

Audit team conducted an interview process at its offices on October 10th 2025. The key personnel interviewed, and the main topics interviewed are summarized in the table below:

| Sr. No | Date | Name and Role | Organization | Topic |
|---|---|---|---|---|
| 1 | 10 October 2025 | Rajesh Aggarwal, Director | SRCNatura Sure Pvt. Ltd. | Financial Additionality |

## 2.4 Site Visits

No site visit was required as the change refers to the design of the project.

## 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 regarding to the validation and verification of the project are incorporated in the Validation and Verification Protocol/Findings Table in Appendix II of this report.

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

- Non-compliance with the monitoring plan, the methodology or the standardized baseline are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- Modifications to the implementation, operation and monitoring of the project activity has not been sufficiently documented by the project participants;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- Issues identified in a FAR during validation to be verified during subsequent verifications.

Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met. All CARs and CLs raised by RINA during verification shall be resolved prior to submitting a request for registration and issuance.

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

During the current verification, 07 Clarification requests and 02 corrective action requests were raised.

### 2.5.1 Forward Action Requests

No FAR has been raised during this verification.

# 3 VALIDATION FINDINGS

## 3.1 Project Details

| Item | Evidence gathering activities, evidence checked, and assessment conclusion |
|---|---|
| General eligibility of the project to participate in the VCS Program | The project is compliant with the VCS program. |
| AFOLU project eligibility, if applicable | Not Applicable |
| **Requantification eligibility** | • The project proponent has all the data required by the new methodology VM0044 v1.2.<br>• The monitoring period being requantified is the latest Verra-approved monitoring period |
| Project scale and estimated ERRs | There are no changes in the emission removals. |
| Likelihood of achieving estimated ERRs | The removals calculated during verification are ex-post hence the emissions have been removed already. |
| Conditions prior to project initiation | The baseline scenario of the project was open field burning and decomposition of agricultural residues. |

| | |
|---|---|
| Additional information relevant to the project | Not Applicable. |

## 3.2 Application of the New Methodology for the Requantification

### 3.2.1 Title and Reference

VM 0044 V1.2 METHODOLOGY FOR BIOCHAR UTILIZATION IN SOIL AND NON-SOIL APPLICATIONS

VT 0008 V1.0 ADDITIONALITY ASSESSMENT

### 3.2.2 Applicability

There are no changes in the applicability conditions. The validation report with ID 2023 IQ MD 30 version 1.1 includes the validation description of applicability conditions of the project in Section 3.3. There are no changes in applicability conditions in the latest version of the methodology VM 0044 1.2 compared with 1.1.

### 3.2.3 Project Boundary

The project boundary includes emission from Pyrolysis or thermochemical conversion (low technology systems). CH4 is the only source of GHG and the same has been assessed by the audit team. There are no changes in the project boundary. *The validation report with ID* 2023 IQ MD 30 *version 1.1 includes the validation description of the project boundary in Section 3.3. There are no changes in applicability conditions in the latest version of the methodology VM 0044 1.2 compared with 1.1.*

| Source | | Gas | Included? | Assessment/ Conclusion |
|---|---|---|---|---|
| Baseline | Feedstock Production | $CO_2$ | No | Excluded as waste biomass is renewable. |
| | | $CH_4$ | No | |
| | | $N_2O$ | No | |
| | Feedstock Transportation | $CO_2$ | No | No transportation of feedstock. |
| | | $CH_4$ | No | |
| | | $N_2O$ | No | |
| | Combustion, aerobic, and anaerobic decomposition of feedstocks | $CO_2$ | No | Baseline emissions are considered 0 to be conservative. |
| | | $CH_4$ | No | |
| | | $N_2O$ | No | |
| | | $CO_2$ | No | |

| Source | | Gas | Included? | Assessment/ Conclusion |
|---|---|---|---|---|
| Project | Feedstock production | $CH_4$ | No | There are no emissions from feedstock production as feedstock is renewable. |
| | | $N_2O$ | No | |
| | Pyrolysis or thermochemical conversion (low technology systems) | $CO_2$ | No | As per the methodology, default methane emission value for steel-shield soil pit (low-technology production facility) are taken from published literature (Cornelissen et al. 2016). |
| | | $CH_4$ | Yes | |
| | | $N_2O$ | No | |
| | Electricity and/or fossil fuels consumed during eligible thermochemical process | CO2 | No | No electricity or fossil fuels are consumed in the project. |
| | | CH4 | No | |
| | | N2O | No | |
| | Biochar Transportation | CO2 | No | No transportation of biochar in the project activity. |
| | | CH4 | No | |
| | | N2O | No | |
| | Pre-treatment of feedstocks (e.g., grinding, grinding) | CO2 | No | No emissions are involved in pre-treatment. |
| | | CH4 | No | |
| | | N2O | No | |
| | Biochar application (e.g., preparation of biochar for final use) | CO2 | No | No emissions take place during biochar application as it is applied manually by farmers. |
| | | CH4 | No | |
| | | N2O | No | |

### 3.2.4 Additionality

The PP has demonstrated the additionality in line with methodology /57/ requirement as below.

Activity Method

Step 1: Regulatory Surplus

There is no mandated government programme or policy in host country of this project.

The regulatory surplus of this project has been confirmed in accordance with the VCS standard. It is noted that the project activity (conversion of waste agricultural biomass into biochar and its subsequent application to agricultural soils) in the region of India are not mandated/required under the national, state or local government statutes. The assessment team checked this with CPCB and SPCB guidelines and regulations. /32/

Step 2: Positive List

As per additionality criteria of methodology /05/, the project meets the applicability conditions of the methodology and meets below conditions which represent the step 2 positive list.

The project is located in India and as per methodology VM0044,

The positive list determination pivots on the concept of activity penetration, emphasizing that if biochar production doesn't exceed 5% of its potential, it's considered to be additional.

Activity Penetration in the project is 0.062% which is well beneath the 5% benchmark and thus the project activity is additional./01//02/

**Step 3: Investment Analysis**

The objective of the verification was to assess whether the investment analysis conducted by the PP to demonstrate financial additionality of Project Reignite complies with the requirements of the VCS Standard version 4.7 and the Verra Additionality Tool VT0008 v1.0, Section 5.4 ("Investment Analysis").

The project activity involves the decentralized production of biochar using flame curtain pyrolysis technology in partnership with smallholder farmers in rural India. Biomass residues which would otherwise be openly burned or left to decay are converted into biochar for soil application. The project has no access to an established biochar market and no willingness or capacity among farmers to pay for biochar. Hence, the only source of revenue is from the sale of carbon removal credits (VCUs).

The VVB confirms that the investment analysis aims to demonstrate that the project is not financially viable without such carbon revenues and that it appropriately applies

Option 1: Investment Comparison Analysis of the Verra Tool VT0008 v1.0.

Methodology and Parameters Verified

a. Selection of Financial Indicator

The PP identified levelized cost (INR [redacted]) as the relevant financial indicator which is consistent with the tool's provision allowing an investment comparison analysis without cash inflows when the project and alternative activities does not generate economic returns.

The VVB reviewed supporting documentation including:

1. Agreement of the PP with the participating community for the production of biochar that includes the payment that has to be made for production of biochar. It further included breakdown of cost components (consumables, labor, monitoring, equipment rentals etc.)
2. Conversion assumptions used to calculate equivalent cost per tonne of $CO_2$ removed.
3. The VVB confirms that the selection of indicator and underlying cost estimates are reasonable and transparent.

b. Identification of Alternatives

The PP correctly identified two realistic and credible alternatives in accordance with the tool:

1. Baseline Scenario: Open-field burning or decay of crop residues (no cost, no revenue). In the baseline scenario, the project would not have been implemented and these conditions would have continued in the absence of any interventions by the PP.
2. Project Scenario: Biochar production using flame curtain pyrolysis (cost incurred however there is no revenue except from carbon finance). In this scenario, the PP has to incur additional costs in order to produce biochar. The PP would not have incurred any cost if they had decided not to implement any project and let the baseline scenario continue as it were. It is also noted that the PP does not get any revenue from the distribution of biochar and only incurs costs to produce the biochar.

The VVB confirms that both alternatives are consistent with prevailing practices in the project area and that no other financially or technically viable alternatives were omitted.

c. Comparison of Financial Indicators

The PP compared the alternatives based on relative levelized costs, demonstrating that the biochar production scenario incurs significant costs (INR [redacted] per tonne of biochar) whereas the baseline (i.e. if the project were to not happen and baseline scenario continues) incurs none.

The VVB verified the underlying assumptions and confirms that the ranking and interpretation are correctly applied in accordance with VT0008 requirements.

d. Demonstration of Financial Non-Viability Without Carbon Revenues

The analysis shows that without revenues from carbon removal credits, the project operates at a loss since biochar cannot be sold and no other income stream exists. The VVB reviewed supporting assumptions, correspondence with local stakeholders and market assessment data confirming the absence of a commercial biochar market in India.

The PP has provided references that corroborate that there does not exist a commercially viable market at a relevant scale for biochar in India. This aligns with the VVB's audit team's observations, experiences and interviews during field visits conducted for the project in the past. During the site visits for validation and verification, the VVB's team had spoken to the local farmers and community representatives to ask if they would have willingly purchased biochar for farming purposes if they had the opportunity to do so, the VVB can confirm that none of the interviewed farmers as a part of the site visit stated purchase of biochar would have been an option they would consider. Even their financial conditions would not allow them to indulge in such a purchase.

The VVB concludes that the PP's justification that carbon finance is the decisive factor enabling project implementation is sound and consistent with tool requirements.

e. Sensitivity Analysis

The PP conducted a sensitivity analysis varying key parameters (±10% changes in production cost and carbon credit price). The VVB reviewed the calculations and found them consistent with VT0008 Section 5.4(e).

The results demonstrate that under reasonable variations in assumptions, the project remains financially non-viable without carbon revenues and continues to depend on carbon finance for implementation.

Project Reignite is a net cost incurring project and results in no cash benefits to the PP or to the farmers implanting it, other than through the sale of VCU credits that the project claims. The project would operate only till the time the project can receive VCUs to continue funding it.

In the investment analysis presented at section 3.5 of the VCS PD, the PP considers two alternatives: 1) the project activity implemented and 2) no project activity taken up. The PP has the choice of not starting the project; in which case, there is no cost outgo on the part of the PP. By taking up the project for implementation, however, the PP has made a conscious decision to incur costs that he could have avoided totally, had their decision been to not take up the project at all. The VVB team agrees, therefore, that the indicator chosen by the PP to demonstrate the investment analysis, viz., a levelized cost comparison between the two alternatives, is appropriate. The PD has been updated accordingly.

The VVB contends that in the context of the project activity, a cost comparison between the two alternatives as described is the most appropriate to demonstrate the additionality of the project through an investment analysis. Paragraph 5.4.1 of VT 0008 mentions financial indicators such as IRR, NPV, cost-benefit ratio, etc. These are only examples provided by the tool. The choice of an indicator would be determined in terms of its suitability for the purpose. For Project Reignite, levelized cost as a comparison indicator as stated above seems the best fit and hence, the PP has selected that indicator and the VVB team agrees that such an indicator is an appropriate choice by the PP.

The VVB has validated the assumptions and data used by the PP in his investment analysis. A validation justification for the same is provided in the CCP Eligibility Verification Report submitted to Verra. The alternative (1) results in a cost incidence[1] of INR [redacted] per tonne (levelized cost) of biochar, which the PP must bear all throughout the duration of the project.

[1] The cost in INR per tonne of biochar produced is not disclosed by the PP in the VCS PD, as this information is regarded by the PP as 'commercially sensitive'. The verification team also agrees with the same and has provided its justification in Appendix 1 of this report.

On the other hand, the alternative (2) not taking up the project does not entail any cost whatsoever for the PP. Clearly, therefore, alternative (1) is additional.

The VVB team would like to observe that the subject assessment is for the evaluation of whether the issued credits (VCUs) from Project Reignite could qualify for ICVCM CCP labelling. As per the ICVCM web site https://icvcm.org/assessment-status/ , biochar projects under the Verra VCS Program could be considered for eligibility for CCP labelling provided the underlying methodology is VM 0044 version 1.2. The VVB's assessment scope is to evaluate whether version 1.2 of VM 0044 could also be applicable to Project Reignite, since the project though registered under Verra VCS as Project I.D. 4679, had applied version 1.1 of VM 0044; that being the version of the methodology current at the time of validation of the project.

The VVB found that the principal difference between the two versions of VM 0044, i.e. versions 1.1 and 1.2 is that the latter version has mandated that the project be able to demonstrate additionality by an additional Step 3 (Investment Analysis). It may be recalled that version 1.1 did not include the additional Step 3. The following is reproduced from the methodology version 1.2 Step 3 for reference:

*Project proponents must follow the procedures and requirements of the most recent version of VCS tool VT0008 Additionality Assessment to conduct an investment analysis (Step 3) through either an investment comparison analysis (Option 1) or benchmark analysis (Option 2). Where the project proponent activity demonstrates that* ***all conditions of the investment analysis per VT0008*** *are met, the proposed project activity is additional. Otherwise, the project activity is not additional and is not eligible for crediting".*

The VVB team contends that the PP has now demonstrated Step 3 of VM 0044 version 1.2 by comparing the two alternatives (1) & (2) mentioned above in the reply to part (2) of this query. The registered VCS PD of Project Reignite had already illustrated in section 3.5 the level of activity penetration of the project to be 0.062%, which is far below the methodology's own threshold of 5% stated in Appendix 1 of VM 0044. It may be noted that with an activity penetration of less than 5%, Project Reignite is already on the positive list and could therefore be considered additional (by virtue of the methodology alone and not necessitating any application of paragraph 5.5 of VT 008); since the methodology itself has prescribed the limit of 5% in its Appendix 1 (Activity Method) as a test of additionality. For the sake of reference, the requirement of the methodology is copied as below:

*"The project activity, production of biochar with waste biomass, is a relatively recent field with few fully commercial technologies. Therefore, the methodology uses an activity method for demonstrating additionality with the processing of waste biomass to biochar as the basis for a positive list. This approach stipulates that the total waste biomass converted to biochar amounts to less than five percent of the total waste biomass available worldwide. Five percent is the activity penetration threshold set by the VCS Methodology Requirements and is determined by taking the Observed Activity (OA) divided by the Maximum Adoption Potential*

*(MAP). Where the result of this equation is less than five percent, the project activity may be considered additional".*

In the opinion of the VVB team, therefore, the PP has been able to demonstrate that the project has an extremely low diffusion rate in the geographical area of its implementation (i.e. the state of Odisha). The additionality tool VT 0008 has asked for the investment analysis to be complemented by a 'Common Practice Analysis' (CPA) (paragraph 5.5). It can be inferred from a reading of paragraph 5.5 that the purpose of the CPA (i.e. the project activity not being a common practice) is, in essence, for the PP to demonstrate that the project technology or practice has not diffused to a large extent in the applicable geographical area. By showing, in the VCS PD at section 3.5 that the activity penetration rate for biochar production remains much below the threshold of 5%, the CPA has been sufficiently demonstrated by the PP. Consequently, the team agrees that Project Reignite is not common practice.

The VVB notes that the VCS PD has included a sensitivity analysis at section 3.5. The financial indicator has been updated and chosen to be levelized cost (Cost per tonne of biochar), and the comparison made is between two alternatives- alternative (1) and (2), out of which alternative (2) is "not taking up the project activity", i.e. a continuation of the baseline scenario. It follows, therefore, that only alternative (1) involves an expenditure on the part of the PP for the production of biochar. Alternative (2) does not need any action on the PP's part and consequently, nil expenses incurred, as no project would be set up by the PP in the case of alternative (2). This also means that whatever be the range of variation of the operational parameters of the project in alternative (1), the net effect is always a cost. With the variations in operational parameters, the cost of biochar would increase or decrease, but at no point would this cost be 'nil'. Thus, alternative (1) would always remain a costlier option for the PP when compared to alternative (2). However, to meet the requirement of paragraph 5.4.1 (5), the sensitivity analysis does feature in the VCS PD. The analysis only has one conclusion, viz., that alternative (1) remains the costlier of the two alternatives, regardless of the range of variation in operational parameters used to work out that cost. VCS PD has been updated with an enhanced explanation of the same.

The VVB team has received a financial analysis in MS Excel spread sheet format from the PP. It has reviewed the same and validated the input assumptions made by the PP in calculating the cost of biochar production under alternative (1) described above. A justification for the assumptions used in the financial analysis is presented in tabular form in the document "Project Reignite: Investment Analysis Validation" being submitted along with this PRR response. It has now been submitted along with this PRR.

### Assessment

The VVB's review included cross-checking of cost data, market information, agreements and contracts, and consistency with the tool's requirements. Based on this review:

- The investment analysis follows Option 1: Investment Comparison Analysis per VT0008 v1.0
- All assumptions and calculations were found to be transparent, traceable and adequately supported by evidence
- Sensitivity analysis has been appropriately performed to demonstrate robustness of conclusions
- The project activity is not economically attractive in the absence of carbon revenues

## 3.3 Methodology Deviations

There are no changes from the registered VCS PD. The previously validation and verified deviations are as follows:

As per registered VCS PD, the approved and applied methodology deviations for the project activity are as follows:

| Parameter | Requirement of the methodology | Proposed Deviation | VVB Conclusion |
|---|---|---|---|
| Moisture content for calculation of biochar on dry weight basis | Frequency of recording: Moisture content should be monitored for each batch of biochar type t. | Frequency of monitoring will be on a monthly basis for random samples of biochar produced of type t. The field sample size will be determined using the Standard for Sampling and Surveys for CDM project activities and programme of activities as a guideline. The laboratory will be testing a representative sample from the field samples. | Audit team reviewed the methodology and found that in page nos. 37 and 38 of methodology in comments section, it is mentioned that the "Moisture content should be monitored for each batch of biochar type t. The weighted average should be calculated for each monitoring period".<br><br>Considering this PP has taken a deviation that for each batch of biochar the dry weight- moisture content assessment is not possible, and monitoring will be done for random samples on a monthly basis using Standard for Sampling and Surveys for CDM project activities and programme of activities as a guideline. The laboratory will be testing a representative |

| | | | |
|---|---|---|---|
| | | | sample from the field samples.<br><br>The same is found to be appropriate, the VVB accepts the proposed deviation using the sample size. |
| H:Corg (Ratio of hydrogen to organic carbon) of biochar produced | Frequency of recording: Each batch of biochar produced at the production facility p. | Frequency of monitoring will be on an annual basis for random samples of biochar produced of type t. The field collection sample size will be determined using the Standard for Sampling and Surveys for CDM project activities and programme of activities as a guideline. The laboratory will be testing a representative sample from the field samples. | Audit team assessed the parameter and the proposed deviations in the methodology and found that the number of batches is too large and it is very scattered on the ground. Thus, monitoring of all the batches from all the villages will not be possible. During the site audit, it was assessed that the sample size will be determined using the Standard for Sampling and Surveys for CDM project activities and programme of activities as a guideline/06(b)/. The laboratory tested all 30 samples and provided the mean and standard deviation of the samples The same was found to be appropriate and the VVB accepted the proposed deviation. |

Therefore, these deviations from the methodology VM 0044, viz., in respect of the parameters "Moisture content of biochar" and "H:Corg ratio" in terms of the frequency of recording of these two parameters do not negatively impact the quantification of the emission removals by the project activity; therefore, these deviations are in line with paragraphs 3.20.1 to 3.20.3 of the VCS Standard v4.7.

### Paragraph 3.20.1

As per paragraph 3.20.1, deviations from the methodology are permitted where they relate to data and parameters available at validation, data and parameters monitored, or the monitoring plan. Since the deviation relates to a change in the frequency of monitoring, it is therefore related to the aspect of "monitoring plan" and hence, permissible.

**Paragraph 3.20.2**

The requirement at paragraph 3.20.2 of the VCS Standard is that the deviations from the applied methodology are permissible if they do not negatively impact the conservativeness of quantification of GHG removals., except where they increase the accuracy of the quantification. The change in frequency of the monitoring plan is in respect of the two monitoring parameters moisture content and the H:Corg ratio. Also, the change is from 'batch-wise monitoring' to 'monthly monitoring' for the moisture content of biochar and from 'batch-wise' to 'annual'. For the H:Corg ratio, the change is from 'batch-wise monitoring' to 'annual' monitoring. In both cases, the sampling approach is based on the CDM Standard for Sampling & Surveys of CDM project activities. Samples are drawn randomly, reducing the possibility of any bias or preference. The sampling is based on a defined confidence interval and is tested for reliability of results. Therefore, a change in the frequency of monitoring to an annual frequency has no adverse impact on the quantified GHG removals and whether or not the samples are tested batch-wise or annually makes no difference to the accuracy of quantified values of emission removals. The change in monitoring frequency does not impact the quantification of the GHG removals negatively and it meets the paragraph 3.20.2

**Paragraph 3.20.3**

Paragraph 3.20.3 accepts methodology deviations at the time of validation or verification. Since the current assessment is a verification activity, the requirements of this paragraph are met.

**Paragraph 3.21.1**

Deviations from project description are allowed at verification. The current assessment is also a verification; therefore, the paragraph 3.21.1 requirement is met.

**Paragraph 3.21.2**

The requirements of this paragraph are applicable if the deviation in project description has any impact on the applicability of the methodology, the appropriateness of the baseline scenario or the additionality of the project itself. As the deviation in this case is regarding the use of cotton stalks as a waste biomass to produce biochar, it is related only to an operational aspect of the working of the project. At the time of the validation of the project activity, the use of cotton stalks had not been envisaged. As the project was getting implemented however, the use of cotton stalks as an additional feedstock to produce biochar was identified and therefore its use was started. The use of cotton stalks satisfies the applicability condition of VM 0044 at section 4, however, as explained below:

1) Cotton stalk is a purely biogenic waste from the cotton plant
2) In the baseline scenario, the cotton stalks would have met the same fate, just as the other biomass types used in the project activity, viz., they would have either been subject to open field burning or left to decay. This is because it would not have been possible to put them to any other practical use.

3) Cotton stalks are locally grown within the districts in which the project is implemented and are not imported from neighbouring areas /regions, let alone other countries or continents
4) Cotton stalks do meet the sustainability conditions for eligible biomass feedstocks, as per Table 1 in VM 0044

4a) The PP has provided documentation and the verification team has validated that in the baseline, the cotton stalks were either burned or left to decay; also, that the use of cotton stalks does not lead to a decline in soil carbon or a reduction in crop productivity. The latter is due to the fact that whatever cotton stalks are used for making biochar have all been sourced from local fields where they are grown as a naturally cultivated crop and there is no purpose-oriented growing of cotton just to serve the needs of the biochar making project;

5) Since there is documentation available to establish the fact that the baseline use of cotton stalks could only have been its disposal through open field burning or being left to decay, the appropriateness of the baseline scenario remains the same as with the other biomass types that would be used in the project activity
6) According to the VM 0044 methodology, the project is additional if it is implementing activities that are on a positive list. In the case of the PP's biochar project, the processing of waste biomass to biochar by itself places the project on a positive list, thereby making the project additional. The verification team has assessed, therefore, that the additionality of the project is due to its being on the positive list and remains unaffected by the use or non-use of a certain type/s of biomass waste (e.g. cotton stalks, in this case) by the project.

**Paragraph 3.21.3**

The requirement is relating to projects that have already had a previous verification period for which the benefits arising from the deviation cannot be claimed. However, the period 16/10/2023 to 30/06/2024 is the first monitoring period for the project activity and hence, this paragraph is not applicable in the present case

**Paragraph 3.21.4**

The project description deviation (i.e. the use of cotton stalks as an additional biomass waste type in the process) is under the verification body's assessment; therefore, the requirements in paragraph 3.21.4 are taken care of

Paragraph 3.21.5

The PP has not used the project description deviation to set a precedent. Hence, this paragraph does not apply in the present case

Paragraph 3.21.6

We confirm that RINA is accredited to conduct both validation as well as verification. We are eligible and qualified to conduct an assessment of the project description deviation, since we are an accredited body for Verra GHG project validations also.

The other project description deviation is about the addition of extra parameter "Moisture content of biomass stock" to the monitoring plan. This deviation is in the manner of adding an extra parameter to the monitoring plan. It has no effect on the other parameters that are already a part of the existing plan and will continue to be so. The addition of an extra parameter, will not have any negative impact on the emission removal quantification. If anything, it will improve process control and the quality of biochar output from the project; both of which are positive benefits that will accrue.

H:Corg (Ratio of hydrogen to organic carbon) of biochar produced

The validation team refers to the VM 0044 version 1.1 methodology document and observes that the section 9.1 of the methodology specifies parameters that would be available at the time of validation (i.e. parameters that remain fixed and do not need to be monitored), while section 9.2 of the methodology has specified those parameters that would need to be monitored during the implementation and operation of the project.

The team notes that the parameter "H:Corg" is listed in section 9.2, which implies that the value of this parameter is not fixed on an ex-ante basis and must be determined through monitoring. In the validation team's opinion, therefore, including this parameter as a monitored parameter fulfils the requirement of the methodology.

However, PP did conduct tests on a sample of biochar to determine expected values of H:Corg, as these values would also be needed in order to arrive at the sample size (the revised PDD section 5.3 provides details on how the PP would calculate the sample size). These test results were shown to the validation team, and it was found that values of this parameter are much lower than 0.7, which is the limit specified by the methodology under applicability conditions (Refer Section 4 of VM 0044 version 1.1 point no. 10). Thus, the validation team was able to

confirm that the project has met this condition of the methodology for its applicability.

**VVB conclusion:**

The applied methodology deviations in the project activity are approved during the validation of project. The deviations do not have any negative impact on the conservativeness of the quantification of GHG emission reductions or removals as the deviations is based on sampling guidelines of CDM Standard. Also, during the site VVB cross verified the sample data and lab test report for moisture content and H:Corg ratio to assess the conservativeness of quantification.

## 3.4 Project Description Deviations

There are no new project deviations. The previously reported deviations are as follows:

Cotton is a locally grown crop in Odisha, state of India. The cotton stalks are left as a waste biomass, which is generally burnt by the farmers. The project has introduced an additional biomass: cotton stalks, thus cotton stocks are addition to types of waste biomass description. As cotton stalks is of the same nature and carbon content as tree pruning, it can be classified under woody biomass. Cotton Stalks are woody stems of the cotton plant and are residues of the cotton crop.

The project description deviation does not impact the applicability of the methodology. The biomass matches all the applicability conditions of the methodology, additionality, and the baseline. In the baseline scenario, cotton stalks are also subjected to open field burning and in the project scenario it is subjected to the flame curtain pyrolysis to produce biochar, which is applied in the same farms where the biomass originates from.

VVB assessed the addition of cotton stock biomass and its overall conclusion is that the project description deviation is valid as it is not deviating from baseline and methodology. Also, there is no impact on additionality.

**Addition of Moisture Content of Biomass as a Monitoring Parameter**

PP has introduced a new parameter- (biomass moisture content) to have better control on the biochar quality and its production. This parameter ensures that only suitable biomass is used in the production process. The inclusion of this new parameter has no effect on the applicability of the methodology, validity of the baseline scenario and the project additionality. Therefore, adding this parameter is in line with the paragraph 3.21 of the VM 0044 v1.1 methodology. Inclusion of this parameter has a better approach for biochar production and quality.

## 3.5 Baseline and Monitoring

### 3.5.1 Baseline Reassessment

Is the project subject to a baseline reassessment?

☐ Yes ☒ No

### 3.5.2 Baseline Scenario

*Is the project applying a new methodology where the baseline scenario determination requirements are different from original methodology?*

☐ Yes ☒ No

### 3.5.3 Monitoring Plan

*There are no changes in the monitoring plan in the new methodology.*

# 4 VERIFICATION FINDINGS

## 4.1 Project Details

| Item | Evidence gathering activities, evidence checked, and assessment conclusion: |
|---|---|
| Section 7 – Additionality of the methodology VM0044 Biochar v1.2, pertains to the CCP criteria. | Evidence-gathering activities: The VVB reviewed the Investment Analysis provided by the project proponent, including detailed cost calculations for biochar production, comparison of alternative scenarios, sensitivity analysis and references to Verra Tool VT0008 v1.0 requirements. Supporting documentation reviewed included cost breakdowns (consumables, labor, monitoring), agreements with community participating in the project and carbon credit revenue assumptions.<br><br>Evidence checked: The VVB has verified cost data (INR [redacted] per tonne of biochar) through the contract of the PP with the participating community. The VVB confirms that there is absence of revenue streams other than carbon credits as there is no commercial market for biochar in India. Especially in the context of this project, the farmers are small and marginal. Hence, they do not have any ability to pay for biochar or position it for any revenues. The VVB had previously validated the baseline |

| | |
|---|---|
| | scenario of open burning/decay of biomass and has reviewed the comparative analysis showing biochar production as a financially unattractive option without carbon finance. Checked sensitivity analysis to confirm continued financial dependence on carbon revenue under reasonable parameter variations.<br><br>Assessment conclusion: The VVB confirms that the project's investment analysis has been conducted in line with Verra Tool VT0008 (Option 1: Investment Comparison Analysis). The analysis clearly demonstrates that Project Reignite is not financially viable in the absence of carbon credit revenues, as the project generates no income apart from VCUs and incurs significant operational costs. The sensitivity analysis supports this conclusion. Therefore, the project is deemed to meet the requirements for financial additionality with carbon finance identified as the decisive factor enabling project implementation and continuation. |

## 4.2 Accuracy of Reduction and Removal Calculations

The verification team has conducted onsite audit and interviews with concerned onsite persons, farmers, physically verified the biochar production sites and has reviewed documents; assessment team concluded that the project activity is implemented and operated in-line with the registered VCS PD/1/. 3595 nos. of active biochar production sites by 3595 farmers from 5000 registered farmers from state of Odisha are included in the 1st monitoring period at the time of registration. The VVB team conducted the interview and had discussion with 90 biochar producers/farmers. The details regarding sample selection for the interview is mentioned in section 2.1 of this report. There is no change in the project design or operation and monitoring practices at site which can alter the applicability or design of the project activity. In addition to the interviews with rural farmers, representatives of project proponent and physical inspection of the biochar production sites, the assessment team has checked all the documentation and found that the project activity is implemented as per the registered VCS PD/1/ submitted by the project proponent for the current monitoring period.

During verification of CCP label for the project activity. VVB assessed and found that there is no requantification in the monitoring period. All the parameters and values are in accordance with the registered VCS PD and Monitoring report.

## 4.3 Quality of Evidence to Determine Reductions and Removals

Following steps were taken to verify the quality of evidences:

- Records were submitted by the project proponent as evidences to determine emission removals;
- The records, data and information provided were found valid for the current verification period.

The documents were verified before on-site audit and also after the site audit to confirm its validity and were checked directly from its source;

- Interviews were performed during on-site audit with involved personnel and PP's representatives;
- The GHG emission removal calculations were checked step by step with PP's representatives; - the quality of evidence was found of adequate level by the verification team to ensure an accurate quantification of the emission removal.

The project proponent applied measures to ensure the required confidence/precision (if required) for each sampled parameter is met, allowing for non-response and the possible removal of outliers from the sample, as part of a Quality Control/Quality Assurance system. The choice of measure applied to each parameter depends on the cost of each data collection approach and logistics required. The project proponent determined the most effective measure for each parameter from the following list:

- As the biochar producing farms in the project are located within a single region (i.e. the state of Odisha in India), as similar in area and crop, there is homogeneity between the facilities and hence, a "Simple Random Sampling (SRS)" is appropriate for the sampling scheme.
- For the purpose of the sampling exercise, a confidence interval of 90/10 has been applied. The values determined by the sampling would have a level of precision of +/- 10% relative to the parameter's true value, with a 90% level of confidence in the result.
- if precision required is not achieved by reliability check, use the lower bound or upper bound of estimates of the parameter.

The sampling plan had the following procedures in place to ensure good quality data. The project proponent ensured that field personnel have reviewed, understood and agreed to follow the monitoring plan procedures, including provisions for maximizing response rates, documenting out-of-population cases, refusals and other sources of non-response. A quality control and assurance strategy has been documented. Quality control and assurance strategies include addressing non-sampling errors, such as non-response or bias from the interviewer.

The project proponent trained the monitoring personnel on how to properly survey biochar production by farmers and taking record (photos of biochar bags and uploading in the mobile app) of biochar produced.

**Monitoring Plan and its implementation assessment:**

During on-site audit, VVB team assessed the monitoring plan of the project activity and its implementation on the ground, by direct interviews with the villagers, farmers, local stakeholders and project proponent team members for the management and monitoring of biomass production.

- VVB verified the biomass production after post-harvest by visiting in villages
- verified the biomass type and did the direct measurement of biomass weight moisture content of biomass by moisture meter
- and the biomass moisture content is less than 15%, then the farmers go ahead with biochar production
- Biochar production in the farmers field and its soil application in the same farms
- Discussion with the organization team General Manager, Managers, and Field Officers
- VVB cross verified the biochar production and its application in farm with the mobile app that is keeping the record of the biochar produced in the field
- the biochar production data are stored by field officers in mobile app, following data are recorded in the mobile app:

  a) biomass produced from the field,

  b) biochar produced and its storage in standardized 50 kg PP gunny bags

  c) biochar application in the field/farms

Flame curtain pyrolysis technology in steel-shield soil pits was used to produce biochar. As the majority of farmers are located in remote areas without access to smartphones, internet, or the ability to use a mobile app, field officers regularly inspect and report the data using the Project Reignite mobile app. The mobile app works offline as well to collect data even when internet connection is not present.

Application tasks involved field officers supervising the application of biochar to the soil and collecting relevant data points. This hands-on approach to monitoring tasks will continue to ensure accurate and timely data collection and reporting.

As a part of internal audit, to check data integrity and monitoring (QA/QC):

- Managers regularly conduct internal audits of biochar producers to validate the data submitted by field officers through the app.
- The multi-layered verification approach reviewed digital records and corroborated them with physical evidence, producer statements, and other forms of verification.
- All field data, data analyses, models, calculations of carbon stocks, and copies of the monitoring reports are stored in a dedicated cloud database with a backup facility.

The PP uses Reignite Monitoring Mobile App to monitor and report the entire process from biomass sourcing to biochar application in the project. All field officers were equipped with smartphones on which they run the mobile app which consists of advanced measures by the PP like secure login method, automatic date and time stamping, GPS tagging, offline data storage. Each field officer was registered individually using their mobile number meaning that only approved devices linked to field officer IDs could submit official data.

The audit team reviewed field officer registration logs and observed one device per field officer policy. If a field officer were to log in on another device, they will get logged out from the previous one automatically with its logs in the project database. The PP has put this measure in place to prevent any kind of mobile app misuse or unauthorized access. Data fields within the mobile app such as biomass type selection, number of standardized bags of biochar, biochar weight input, temperature recording etc. are placed as mandatory fields with restricted ranges and validation logics preventing any kind of wrong data entries at the point of submission. Only batches of biochar that have complete details are accounted for in the project. Incomplete batches are discarded.

During the audit, the verification team found the mobile app robustness for operations of this project. In the monitoring period, the field officers verified each biochar producer in the project before beginning production to collect the amount of biomass available in the year, assess the readiness of the biochar producer through a test and ensure readiness of the production facility. Upon signature verification of the farmer as well as the field officer, they are able to monitor batches under the farmer. Field inspections during the audit confirmed that the amount of waste biomass available to each biochar producer matches the recorded types of biomass and approximate quantities.

Field officers were required to be physically present at the production site during each batch of pyrolysis. They collect data points on each step of the process including type of biomass being used, moisture content of the biomass, temperature of pyrolysis after achieving a stable flame curtain. Once the biochar is produced, it is subjected to sun/air drying after it cools down in the field. The biochar producers then fill standardised PP gunny bags with the biochar produced. Each bag is filled to the top. The field officer counts the number of bags as well as weighs them using handheld and digital weighing scales. After completing the process, the field officer seals the bags. The mobile app collects date and time stamps as well as coordinates at each step. The app's backend automatically flags outlier data entries for manual review by Managers. Upon field verification by the Manager, the batch is either approved or rejected.

The verification team witnessed the biochar production and identified the average weight of a standardized bag of biochar for each type of biomass and cross checked with the number of batches as well as total and average number of bags reported. The audit team also checked the bulk densities of biochar using lab reports for each type of biomass to cross check the same and it was found that the dry weight of biochar taken by the PP is conservative and reflects the field reality. In the monitoring process, the next step for the field officer is to visit the farmer once they are ready for biochar application. The field officer ensures the number of bags produced in the batch are present for application and the farmer proceeds to open them and mix manure/compost/natural amendment with the biochar. The farmers apply the biochar in the field which is witnessed by the field officer. Coordinates and dates and times are automatically collected in that process and recorded in the app. Both the farmer and the field officer attest that they have applied the said amount of biochar in the farmer's/ family/ neighbours's farm. This marks the completion of the batch and it is then accounted for in the crediting period. The handheld infrared thermometers were found to be factory-calibrated models with recalibration done at the district offices as per manufacturer's instructions. Field officers were trained to record only stable temperatures after flame curtain establishment.

Field officers photographed all bags of batches monitored using the mobile app, while automatically collecting geotagging and date time stamps. This is a very important operational control in the project. Audit inspections compared all batches for the farmers audited during site visit and found full correspondence. During the application phase, control processes were found to be equally stringent. Bags could not be emptied without the physical presence and supervision of a field officer. Biochar producers and field officers jointly confirmed the bag integrity visually before application. For broken-seal cases, second weighing protocols were enforced. If any discrepancy between initial and second weights was detected, the lower weight reading was automatically applied in the app's calculation logic for that batch, this ensured conservativeness. The PP has conservatively calculated the weight of biochar produced. During application, the mobile app not only automatically collected the date and GPS coordinates of application but also signatures of the biochar producer and themselves as witness.

Internal audits by Managers followed protocol set by the PP. Managers reviewed their respective field officers monthly to ensure appropriateness of the monitoring. Their internal inspection procedures involved cross-checking app-submitted data against physical verification of producers. The PP has enforced a process for corrective actions and timeline-based resolution requirements within the mobile app. Issues categorized as 'High Risk' mandated decision making of the General Manager and disciplinary actions using the project manual.

All data collected through the Reignite Monitoring App are synced to a primary secure cloud server housed with ISO27001 certified providers. Access to the database was strictly role-based. Field officers had 'Write-Only' permissions limited to their assigned farmers, Managers had district-level 'Read' access for the batch level data and 'Write' access only for their inspection report.

Interviews indicated that personnel were regularly trained not just in technical procedures but also in ethics and integrity. A confidential reporting line (operated independently from local management) was available for field officers or producers wishing to report anomalies.

Finally, project emissions accounting was verified. The use of conservative emissions factors for flame curtain pyrolysis was confirmed by cross-checking against current peer-reviewed literature and IPCC guidelines. Calculations integrated full life-cycle considerations: biomass sourcing, production, and transport emissions as none, biomass was farm-sourced).

The above monitoring procedures have been reviewed by the VVB and cross checked the data collection and its storage in the app.

Additional Note on the parameter added: A random sample of biomass is extracted and used for each batch of biochar production to check the moisture content of the biomass. If the moisture content is beyond 15%, the biomass is not eligible for biochar production and is subject to additional drying in the air and under the sun. If the moisture content is below 15%, the farmer proceeds to make the biochar. The parameter is not required for the quantification; however, it is used to ensure production of high-quality biochar and ensuring the integrity of the process.

**Biomass types** used such as paddy (rice) straw, tree pruning, bamboo pruning, maize cobs, ipomea carnea and water hyacinth available in the baseline scenario and based on which it would be possible for the PP to estimate the expected quantities of biochar that could be produced by the project when it is implemented. These quantities were considered as:

- 57 tonnes per year for rice straw
- 6 tonnes per year for tree pruning
- 12 tonnes per year for bamboo pruning
- 6 tonnes per year for maize cobs
- 6 tonnes per year for ipomea carnea
- 3 tonnes per year for water hyacinth

Indeed, these quantities were taken on the basis of expert judgement based on on-site assessments made. The VVB requests Verra to please note that these quantities were arrived at by considering empirical data and on-site observations made by experts whose reports were used by the PP to determine the quantities. Inputs provided by the local farmers were also used in corroborating those numbers. Already during verification audit of the project activities and implementation at site, the VVB team spoke to some of the farmers who have been growing these crops for many years and they were able to provide fairly accurate estimates of their own that tallied with the experts' reports that were reviewed by the team. Biomass assessment has been already validated and verified in accordance with the applied methodology. The same is reported in detail in the registered MR and verification report.

The PP also conducted a baseline survey prior to the start of the project. The baseline survey report reflects these same quantities of biomass types available that could be utilized for biochar making, in the project implementation areas. Further, an external third-party laboratory M/s. CRPL /60/ had also carried out an analysis of the available biomass quantities at the commencement of the project. The VVB team has referred to both these documents, viz., baseline survey report and third-party laboratory report for supporting evidence and can confirm that the quantities considered by the PP are correct. The same quantities also appear in the VCS PD and were validated and verified by VVB at the time the registration of Project Reignite under the VCS.

## 4.4 Non-Permanence Risk Analysis

Not applicable as this is not an AFOLU project. However, in this methodology there is a permanence factor and the same has been derived from the IPCC report, Carleson Research and Lab test report/19//20/34//48/ In this project the PRde,k = Permanence adjustment factor due to decay of biochar to be defined for application type k (dimensionless). Biochar is subject to natural decay rate when used in soil applications such as in agriculture, forests, croplands, or grasslands. "The temperature in the main pyrolysis zone just below the flame curtain is 680°C to 750°C and cools down slowly below the main pyrolysis zone when new feedstock layers are added to 150– 450°C. depending on the duration of batch before final quenching" (Cornelissen et al. 2016)/25/. It matches with average values collected from a sample of production facilities during process testing as described in Section 5 of the MR. Due to high temperature pyrolysis, the fraction of biochar remaining after hundred years is 0.89 (Table 4AP.2 of IPCC (2019)/28/

# 5 REQUANTIFICATION OPINION

## 5.1 Requantification Validation and Verification Summary

RINA Services S.p.A. (RINA) has been engaged by SRCNatura Sure Pvt. Ltd. to perform the verification of the CCP Label for "Project Reignite: Turning Farm Waste to Climate Action".

The management of the project participant/owner is responsible for the preparation of the GHG emissions data and the reported/estimated GHG emissions reductions on the basis set out within the project's Monitoring Plan in the registered VCS PD and the approved methodologies.

Our Verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board and VCS Standard version 4.7. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. The verification team can confirm that:

- the project is operated as planned and described in the registered VCS PD;
- the monitoring plan is as per the applied methodology;
- the monitoring process in the Monitoring Report is as per the registered VCS PD.
- the development and maintenance of records and reporting procedures are in accordance with the monitoring plan
- The monitoring system is in place and generates GHG emission reductions data;
- The GHG emission removals are calculated without material misstatements.
- A Reasonable Level of assurance was achieved as planned, during the verification process.
- Financial Additionality demonstrated by PP

RINA Services issues the declaration that the verification of the GHG statement was conducted in accordance with ISO 14064-3:2019 and CCP Label Guidelines to demonstrate the financial additionality of the project.

## 5.2 Validation Conclusion

The projects description is in compliance with the requirements of the Host Country legislation and sustainability criteria along with VCS standard version 4.4 /04/

- The project's baseline and additionality and monitoring plan are assessed against "VCS Methodology: VM0044" for grouped project/05/.

- A risk-based approach has been followed to perform this validation activity. The review of the project description and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews with Project
- Owner have provided with sufficient evidence for positive validation opinion as per the requirement of VCS.

The conclusions of this report demonstrate that the proposed VCS project, as described in the VCS PD/01/, conforms to all applicable validation criteria.

The project complies with the validation and verification criteria for projects and their GHG emission reductions or removals set out in VCS standard Version 4.4 and includes any qualifications or limitations.

RINA declaration that the validation of the GHG statement was conducted in accordance with ISO

14064-3; 2019. The validation team is hereby able to conclude and confirm that the project is expected to achieve the estimated emission removals as stated in the PD".

The estimated emission reduction is in accordance with the registered validation and the actual emission reductions during this monitoring period is in line with the registered verification report. There are no changes in the ER estimations and calculations for re-quantification verification and CCP label.

Validated GHG emission reductions and removals in the above period:

| Year | Estimated GHG emission reductions or removals (tCO2e) |
|---|---|
| Year 2023<br>(16-Oct - 2023-- 31- Dec-2023) | 23,366 |
| Year 2024 | 110,760 |
| Year 2025 | 110,760 |
| Year 2026 | 110,760 |
| Year 2027 | 110,760 |
| Year 2028 | 110,760 |
| Year 2029 | 110,760 |
| Year 2030<br>01 Jan 2030-- 15-June -2030) | 87,394 |
| Total estimated ERs | 775,320 |

| | |
|---|---|
| Total number of crediting years | 7 years |
| Average annual ERs | 110,760 |

## 5.3 Verification Conclusion

RINA Services S.p.A. (RINA) has been engaged by SRCNatura Sure Pvt. Ltd. to perform the verification of the CCP Label for "Project Reignite: Turning Farm Waste to Climate Action".

The management of the project participant/owner is responsible for the preparation of the GHG emissions data and the reported/estimated GHG emissions reductions on the basis set out within the project's Monitoring Plan in the registered VCS PD and the approved methodologies.

Our Verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board and VCS Standard version 4.7. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. The verification team can confirm that:

- the project is operated as planned and described in the registered VCS PD;
- the monitoring plan is as per the applied methodology;
- the monitoring process in the Monitoring Report is as per the registered VCS PD.
- the development and maintenance of records and reporting procedures are in accordance with the monitoring plan
- The monitoring system is in place and generates GHG emission reductions data;
- The GHG emission removals are calculated without material misstatements.
- A Reasonable Level of assurance was achieved as planned, during the verification process.
- Financial Additionality demonstrated by PP

RINA Services issues the declaration that the verification of the GHG statement was conducted in accordance with ISO 14064-3:2019 and CCP Label Guidelines to demonstrate the financial additionality of the project.

**Verification period being requantified:** 16-October-2023 to 30-June-2024

**Verified GHG emission removals in the above verification period:**

| Vintage period | Baseline emissions ($tCO_2e$) | Project emissions ($tCO_2e$) | Leakage emissions ($tCO_2e$) | Reduction VCUs ($tCO_2e$) | Removal VCUs ($tCO_2e$) | Total VCUs ($tCO_2e$) |
|---|---|---|---|---|---|---|
| **2023**<br>**16-10-2023– 31-12-2023** | 0 | 39,909 | 0 | 0 | 39,909 | 39,909 |
| **2024**<br>**(1-1-2024 – 30-6-2024)** | 0 | 75,194 | 0 | 0 | 75,194 | 75,194 |
| **Total** | 0 | 115,103 | 0 | 0 | 115,103 | 115,103 |

*Complete the table below for the entire project crediting period*

| Vintage period | Estimated baseline emissions ($tCO_2e$) | Estimated project emissions ($tCO_2e$) | Estimated leakage emissions ($tCO_2e$) | Estimated buffer pool allocation ($tCO_2e$) | Estimated reductions VCUs ($tCO_2e$) | Estimated removals VCUs ($tCO_2e$) | Estimated total VCU issuance ($tCO_2e$) |
|---|---|---|---|---|---|---|---|
| Year 2023 (16-10-2023-- 31-12-2023) | 0 | 39,909 | 0 | 0 | 0 | 39,909 | 0 |
| Year 2024 (1-1-2024 – 30-6-2024) | 0 | 75,194 | 0 | 0 | 0 | 75,194 | 0 |
| **Total** | 0 | 115,103 | 0 | 0 | 0 | 115,103 | 0 |

## 5.4 Ex-ante vs Ex-post ERR Comparison

| Vintage period | Ex-ante estimated reductions/ removals | Achieved reductions/ removals | Percent difference | Explanation for the difference |
|---|---|---|---|---|
| Year 2023<br>(16-10-2023-31-12-2023) | 33,056 | 39,909 | 20.73% | Ex-ante estimates were based on IPCC results. The lab results were available only after the production of biochar began. The lab results, reflecting the actual values of the biochar produced, were higher than the |

| | | | | |
|---|---|---|---|---|
| | | | | IPCC estimates, leading to a difference.<br>The biochar production does not occur evenly across the 9 productive months, which was assumed in the ex-ante calculations. Because of this uneven distribution of production was not accounted for in the ex-ante estimates and the achieved removals are based on actual production data. This trend is expected to continue in future years of the project. |
| Year 2024 (1-1-2024 – 30-06-2024) | 77,704 | 75,194 | -3.2% | The achieved removals are similar to ex-ante estimated removals. |
| **Total** | **110,760** | **115,103** | **3.92%** | |

## 5.5 VCU Reconciliation Summary Table

| Vintage period | Approved total VCUs eligible for issuance | New total VCUs eligible for issuance | Reconciliation percentage (%) = New VCUs/ original VCUs | Original total buffer pool allocation | New total buffer pool allocation | Buffer allocation difference (new total – old total) |
|---|---|---|---|---|---|---|
| Year 2023 (16-10-2023-- 31-12-2023) | 39,909 | 39,909 | 0 | 0 | 0 | 0 |
| Year 2024 (1-1-2024 – 30-6-2024) | 75,194 | 75,194 | 0 | 0 | 0 | 0 |
| **Total** | 115,103 | 115,103 | 0 | 0 | 0 | 0 |

# APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

*The PP regards cost of producing biochar (INR per tonne of biochar produced) as commercially sensitive information. The verification team agrees with the same for the reason below:*

The PP incurs a cost of Rs. [redacted] per tonne of biochar produced and applied (levelized cost). The project is implemented in partnership with Farmer Producer Companies (FPCs) with whom the PP has in place, contractual agreements. There are several such agencies who approach the PP from time to time, desirous of being appointed as project implementers. The PP examines the credentials and background of such agencies and selects suitable qualified ones who the PP believes would possess the necessary competence to be able to implement the project in a satisfactory manner.

Since the selection of the agency is a negotiated process, the information regarding the rate at which the deal is struck between the PP and the agency is regarded as commercially sensitive in nature by the PP. This information only appears in the contract between the PP and the implementing agency and remains confidential between the two. Its public disclosure is, therefore, liable to adversely impact the PP's ability and freedom to arrive at a favourable deal with the implementing agency, in a manner that safeguards the PP's own commercial interests. If the secrecy of this information is not protected, there is a risk that the PP would not be able to strike a favourable agreement with the agency and would end up paying a higher cost for project implementation, putting a further strain on its already stretched finances. For this reason, the PP has chosen not to make public the specific information related to the cost of implementation of the project in the section 3.5 of the VCS PD on the demonstration of additionality of the project.

The verification team agrees that public disclosure of any information related to the cost of manufacture of the biochar could prejudice the outcome of contractual negotiations and result in material financial losses for the PP.

# APPENDIX II: RESOLUTION OF CARS/CLS

*Use appendices for supporting information. Delete this appendix (title and instructions) where no appendix is required.*

**Table 1. Remaining FARs from validation and/or previous verification**

| | | | | |
|---|---|---|---|---|
| **FAR ID** | xx | **Section no.** | | **Date:** DD/MM/YYYY |
| **Description of FAR** | | | | |
| | | | | |
| **CME response** | | | | **Date:** DD/MM/YYYY |
| | | | | |
| **Documentation provided by the CME** | | | | |
| | | | | |
| **DOE assessment** | | | | **Date:** DD/MM/YYYY |
| | | | | |

**Table 2. CLs from this verification**

| | | | | |
|---|---|---|---|---|
| **CL ID** | 01 | **Section no.** | 3.5 Additionality | **Date:** 21/10/2025 |
| **Description of CL** | | | | |
| 1) Kindly elaborate on the financial indicator used and justify why it's the most appropriate for this project.<br>2) Please provide a copy of the contract with the community.<br>3) Please provide other competitive offers/ contracts received<br>*4)* Please provide references to further justify why the farmers do not have the ability to pay for biochar<br>*5)* Please provide documented evidence for Consumables and Equipment Rentals including biomass, steel shielded soil pit, monitoring equipment etc.<br>*6)* Please provide labor and monitoring costs evidence | | | | |
| **CME response** | | | | **Date:** 23/10/2025 |

Reply to Sr. No. (1): The indicator we have used for investment analysis to prove financial additionality is cost analysis in place of IRR. It may be noted that low technology biochar production is opex driven. Moreover, the project has nil cash inflows over its operating lifetime, other than carbon revenues. Hence, the use of cost (OPEX) analysis to demonstrate the project financials is an appropriate method

The financial indicator used for Project Reignite is cost analysis i.e. the cost of production per tonne of biochar specifically, the cost of producing one tonne of biochar, which is calculated at INR [redacted] per tonne.

Justification for Selection:

The choice of this indicator is guided by the project's financial structure and the nature of its operations:
Absence of Revenue Streams (Other Than Carbon Credits):
Project Reignite's activity, producing biochar through flame curtain pyrolysis, does not currently generate any market revenue in India. Biochar has no established commercial market, and the smallholder farmers involved neither sell biochar nor can afford to purchase it. Consequently, traditional financial indicators such as Internal Rate of Return (IRR), Net Present Value (NPV) or Benefit-Cost Ratio (BCR) are not applicable as these require inflows of cash or measurable revenues to calculate returns.

OPEX-Based Project Structure:
The project operates on an operational expenditure (OPEX) basis, where ongoing costs are incurred to produce and apply biochar rather than large upfront capital investments. Therefore, evaluating the project through a cost-based indicator ie. the cost of producing one tonne of biochar is the most appropriate approach to assess financial performance.

Alignment with Verra Tool VT0008 (Option 1):
According to Verra Tool VT0008 v1.0, Section 5.4, when project activities and alternatives do not generate any financial or economic benefits, the project proponent may apply Investment Comparison Analysis (Option 1) without cash inflows. Project Reignite qualifies under this provision, making a cost-based comparison suitable and compliant with the approved methodology.

Enables Comparison with the Baseline Scenario:
By focusing on the cost per tonne of biochar, the analysis clearly contrasts the baseline scenario (open-field burning or decay of biomass with no cost) with the project scenario (biochar production with a cost of INR [redacted] per tonne). This straightforward comparison demonstrates that biochar production is financially unattractive in the absence of carbon credit revenues, thereby substantiating the project's additionality.

Reply to Sr. No. (2): We have attached the official contract with the community.

Reply to Sr. No. (3): We have attached other competitive offer we had received prior to starting the project.

Reply to Sr. No. (4): Smallholder farmers in India lack the ability to pay for biochar, hence it has never been widely adopted as a practice.The smallholder and marginal farmers participating in Project Reignite lack the financial capacity to purchase biochar or invest in soil enhancement inputs. This is supported by multiple independent studies and official statistics on the economic condition of Indian farmers:

Low Farm Incomes:

According to the National Sample Survey Office (NSSO) Situation Assessment Survey of Agricultural Households (2021), the average monthly income of an agricultural household in India is INR 10,218. Of this, approximately 60–70% is spent on household consumption and debt repayment, leaving minimal disposable income for purchasing non-essential agricultural inputs such as biochar.

Limited Adoption of Soil Amendments Due to Cost:
The National Bank for Agriculture and Rural Development (NABARD) Rural Pulse Report (2022) notes that small and marginal farmers often rely on subsidized fertilizers and have limited capacity to invest in additional or innovative soil amendments due to cash flow constraints and high upfront costs.

High Debt Levels Among Farmers:
Studies show that more than 50% of Indian agricultural households are indebted, with credit access primarily used for consumption or essential farm inputs like seeds and fertilizers. Non-essential or unfamiliar inputs like biochar are therefore unaffordable.

Lack of Established Biochar Market:
Multiple academic and policy sources confirm that there is no established biochar market in India, and awareness or willingness to pay among smallholders is very low.

Project-Specific Context:
Field engagement by the Project Reignite team (through training and pilot deployments) corroborates these findings. Participating farmers, predominantly small and marginal landholders (<2 hectares), have shown willingness to collaborate when supported by the project but no financial ability to purchase biochar.

References:

National Sample Survey Office (NSSO) / National Statistical Office (NSO) – “Situation Assessment Survey of Agricultural Households and Land & Livestock Holdings of Households in Rural India, 2019”- https://mospi.gov.in/sites/default/files/publication_reports/Report_587m_0.pdf

Data portal – “State/NES/UT-wise Average Monthly Income (Rs.) per Agricultural Household (SAS NSS 77th round)- https://data.gov.in/resource/statenesuts-wise-average-monthly-income-rs-agricultural-hosuhold-result-situation

Article – “Analysing Income Distribution Among Agricultural Households in India”- https://www.researchgate.net/publication/392752367_Analysing_Income_Distribution_Among_Agricultural_Households_in_India

National Bank for Agriculture and Rural Development (NABARD) – "Empowering Marginal Farmers for Cultivating Prosperity"- https://www.nabard.org/auth/writereaddata/tender/pub_1107250454491607.pdf

Biochar in Indian context – "Policies and strategies for sustainable use of biochar in Indian agriculture"- https://bioresources.cnr.ncsu.edu/resources/policies-and-strategies-for-sustainable-use-of-biochar-in-indian-agriculture

Biochar research bulletin – Indian Council of Agricultural Research – "Biochar Production and its Use in Rainfed Agriculture"- https://www.icar-crida.res.in/assets/img/TechnicalblletIns/Biochar%20Research%20Bulletin%20March%202018.pdf

Reply to Sr. No. (5): Please find in the Appendix attached in the agreement.

Reply to Sr. No. (6): Please find in the Appendix attached in the agreement.

**Documentation provided by the CME**

1. Agreement with the Community for Biochar Production
2. Copies of Competitive Offers Received

| **DOE assessment** | **Date:** 27/10/2025 |
|---|---|

PP provided the substantial evidence and clarifications as follows:

1) PP provided the Operational Expenditure details/documents of the project activity. PP chose the cost analysis to justify the additionality. VVB verified the cost of production of biochar and found that the revenue from Carbon credits is the only source of revenue stream for the project activity, otherwise the project is not financially viable. VVB verified the documents of cost of production
2) PP provided the official contract with community document
3) PP provided the competitive offer
4) VVB verified during the site audit and found that the farmers are not capable of producing the biochar, and the agricultural waste biomass goes in open burning.
5) PP provided the documented evidence for Consumables and Equipment Rentals including biomass, steel shielded soil pit and monitoring equipment (hand held thermometer, moisture reading instrument and weighing machines)
6) PP provided the labor and monitoring costs documents (labour expense record and payment to local field team)

VVB verified the documented evidence, details of expense related to monitoring equipment and expense for labour cost and monitoring team. Also, this was verified during the on-site audit and found to be in place. Thus, the CL is closed.

**Table 3. CARs from this verification**

| | | | | |
|---|---|---|---|---|
| **CAR ID** | Xx | **Section no.** | | **Date:** dd/mm/yyyy |
| **Description of CAR** | | | | |
| | | | | |
| **CME response** | | | | **Date:** DD/MM/YYYY |
| | | | | |
| **Documentation provided by the CME** | | | | |
| | | | | |
| **DOE assessment** | | | | **Date:** DD/MM/YYYY |
| | | | | |

**Table 4. FARs from this verification**

| | | | | |
|---|---|---|---|---|
| **FAR ID** | xx | **Section No.** | | **Date:** DD/MM/YYYY |
| **Description of FAR** | | | | |
| | | | | |
| **CME response** | | | | **Date:** DD/MM/YYYY |
| | | | | |
| **Documentation provided by the CME** | | | | |
| | | | | |
| **DOE assessment** | | | | **Date:** DD/MM/YYYY |
| | | | | |

# APPENDIX III: LIST OF DOCUMENTS

| Ref No. | Document |
|---|---|
| /01/ | Registered VCS Project Description (PD) of the project titled, "Project Reignite: Turning Farm Waste to Climate Action", version 1.3, dated 10-March-2024<br>**https://registry.verra.org/app/projectDetail/VCS/4679** |
| /02/ | Registered VCS Validation Report, version 1.1Aa, dated 04-November-2023 |
| /03 | Monitoring Report- version 01 dated 02-September-2024, version 02 dated 26-Nov-2024 |
| /04/ | Emission Reduction (ER) estimation sheet, version 01 dated 02-September-2024, version 02 dated 26-Nov-2024 |
| /05/ | Extract from baseline Survey Data sheet, dated 30-October-2023 |
| /06/ | VCS: VCS Standard, Version 4.7, dated 16-April-2024<br>VCS: VCS Program Guide, VCS Version 4.4, dated 29 August 2023 |
| /07/ | Methodology for Biochar Utilization in Soil and Non-Soil Applications VM0044, Sectoral Scope 13<br>Version 1.1 Published on 05 July 2023,<br>https://verra.org/methodologies/vm0044-methodology-for-biochar-utilization-in-soil-and-non-soil-applications/<br>VM 0044 version 1.2 of 27 June 2025 |
| /08 | a) UNFCCC CDM validation and verification standard for programmes of activities, version 03.0 dated 09-September-2021<br>b) UNFCCC Standard: Sampling and surveys for CDM project activities and programmes of activities, Version 09.0 dated 27-May-2021 |
| /09/ | Baseline and Monitoring survey results |
| /10/ | Extract from Attendance Register maintained for LSC Meetings |
| /11/ | Sample invitation card sent to local stakeholders |
| /12/ | Sample poster put in villages prior to LSC |
| /13/ | Sample hand out provided at the end of meetings |
| /14/ | Transcript of LSC Meetings, dated 1-January-2023 |
| /15/ | Summary of LSC Meetings with photographic evidence, dated 5-October-2023 |
| /16/ | Training Manual |
| /17/ | Extract from Training Images |

| | |
|---|---|
| /18/ | Training records of monitoring team |
| /19/ | Test report of heavy metals presence in Biochar, dated 20-September-2023 |
| /20/ | Test report of yield rates for each feedstock type, dated 05-September-2023 |
| /21/ | Screenshots of Reignite Mobile app |
| /22/ | Record of first batch of biochar production on 16th October 2023 (ID: eJZ.dBG2RG25cX.OXgnCeQ), dated 18-October-2023 |
| /23/ | Expert judgement on expected biomass availability and biochar production |
| /24/ | Agreement between SRC-Natura Sure Pvt. Ltd. and Farmers |
| /25/ | Emissions and Char Quality of Flame-Curtain "Kon Tiki" Kilns for Farmer-Scale Charcoal/Biochar Production, https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0154617&type=printable<br>Retrieved on 25th November 2024, Language: English |
| /26/ | https://www.tandfonline.com/doi/epdf/10.4155/cmt.10.32?needAccess=true<br>Retrieved on 25th November, 2024, Language: English |
| /27/ | https://link.springer.com/article/10.1007/s42773-020-00067-x, Retrieved on 25th November 2024, Language: English |
| /28/ | https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Ap4_Biochar.pdf, Retrieved on 25th November, 2024, Language: English |
| /29/ | https://www.researchgate.net/publication/315917487_Water_hyacinth_Eichhornia_crassipes_-_management_of_an_invasive_weed_the_Indian_scenario/link/58eceb1e458515316aac2308/download<br>Retrieved on 25th November, 2024, Language: English |
| /30/ | http://archives.biharvidhanmandal.in/jspui/handle/123456789/121330, Retrieved on 25th November 2024, Language: English, relevant to biomass burning |
| /31/ | https://www.sciencedirect.com/science/article/pii/S0929139316304954?via%3Dihub, Retrieved on 25th November, 2024, Language: English |
| /32/ | State Pollution Control Board, Odisha, Retrieved on 25th November, 2024, Language: English |
| /33/ | https://www.european-biochar.org/media/doc/2/version_en_10_3.pdf, Retrieved on 25th November, 2024, Language: English |
| /34/ | IPCC Fifth Assessment Report |
| /35/ | Blanco-Canqui, H., Laird, D. A., Heaton, E. A., Rathke, S., & Acharya, B. S. (2020). Soil carbon increased by twice the amount of biochar carbon applied after 6 years: Field evidence of negative priming. GCB Bioenergy, 12(4), 240–251. https://doi.org/10.1111/gcbb.12665, retrieved on 25th November 2024, Language: English |

| | |
|---|---|
| /36/ | Ippolito, J. A., Cui, L., Kammann, C., Wrage-Mönnig, N., Estavillo, J. M., Fuertes-Mendizabal, T., Cayuela, M. L., Sigua, G., Novak, J., Spokas, K., & Borchard, N. (2020). Feedstock choice, pyrolysis temperature and type influence biochar characteristics: A comprehensive meta-data analysis review. Biochar, 2(4), 421–438. https://doi.org/10.1007/s42773-020-00067-x, retrieved on 25th November 2024, Language: English |
| /37/ | Spokas, K. A. (2010). Review of the stability of biochar in soils: Predictability of O:C molar ratios. Carbon Management, 1(2), 289–303. https://doi.org/10.4155/cmt.10.32, retrieved on 25th November 2024, Language: English |
| /38/ | VCS MR template version 4.4 |
| /39/ | VCS Standard version 4.7 |
| /40/ | http://www.raosoft.com/samplesize.html |
| /41/ | Self-Declaration Undertaking Letter by SRCNatura Sure Pvt. Ltd |
| /42/ | https://cdm.unfccc.int/Projects/projsearch.html |
| /43/ | https://registry.goldstandard.org/projects?q=&page=1 |
| /44/ | https://projects.globalcarboncouncil.com/pages/gcc_home |
| /45/ | Employment records |
| /48/ | Lab Test Reports/record of pyrolysis temperature |
| /49/ | https://www.sciencedirect.com/science/article/abs/pii/S0378429024002715 |
| /50 | *https://www.sciencedirect.com/science/article/abs/pii/S0959652623025830* |
| /51/ | Stubble burning: Effects on health & environment, regulations and management practices - ScienceDirect |
| /52/ | Updated Reignite PD_31 Oct. 2025 |
| /53/ | VCS-Requantification-Report_31 Oct. 2025 |
| /54/ | CCP-Eligibility-Ver Rep-Checklist-Project Reignite_VCS 4679_28 Oct. 2025 |
| /55/ | VCS-Methodology-Change-and-Requantification-Procedure-v4.0-1, of 16 October 2024 |
| /56/ | VT0008-Additionality-Assessment-v1.0, of 14 October 2024 |
| /57/ | VM44_v1.2_tracked-changes, version 1.2 of 27 June 2025 |
| /58/ | CCP-Label-Guidance-Document-v1.1-Final, of 15 April 2025 |
| /59/ | Financial Analysis Excel sheet_dated 06 Nov. 2025 |
| /60/ | External third-party laboratory M/s. Connecting Research Private Limited (CRPL) |