

COMBINED FACILITY AND OUTPUT AUDIT REPORT

KEY PROJECT INFORMATION							
REPORT ID	PE.JVV.25.012(3)						
REPORT TITLE	Foundation 1 Facility Combined facility and output audit report						
REPORT DATE	16/03/2026						
VERSION NO	1.3						
CO ₂ REMOVAL SUPPLIER	Arukah Capital Pte Ltd						
PRODUCTION FACILITY NAME	Foundation 1						
PRODUCTION FACILITY ADDRESSES	Soma Farm (Bati), Kna Village, Krang Thnong Commune, Bati District, Takeo Province, Cambodia						
PRODUCTION FACILITY ID	526866						
PRODUCTION FACILITY COORDINATES	Latitude: 11.344235 Longitude: 104.816319						
REMOVAL PERIOD	01/10/2025 to 12/12/2025						
CO ₂ SINK SECTOR	Biochar						
APPLIED METHODOLOGY	Biochar Methodology Edition 2022, v3.0						
PURO.EARTH STANDARD VERSION	Puro Standard General Rules Version 4.2						
NET VOLUME OF CO ₂ REMOVAL	340.76 CORCs						
CLIENT	Puro. earth						
PREPARED BY	Earthood Services Limited						
APPROVED BY	Dr. Kaviraj Singh						
WORK CARRIED OUT BY	<table border="0"> <tr> <td>Team Leader & Methodology Expert</td> <td>Mehr Munjal</td> </tr> <tr> <td>Validator/Verifier</td> <td>Shubham Patil</td> </tr> <tr> <td>Technical Reviewer & Methodology Expert</td> <td>Deepika Mahala</td> </tr> </table>	Team Leader & Methodology Expert	Mehr Munjal	Validator/Verifier	Shubham Patil	Technical Reviewer & Methodology Expert	Deepika Mahala
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Technical Reviewer & Methodology Expert	Deepika Mahala						

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1. INTRODUCTION

Earthood Services Limited (formerly known as Earthood Services Private Limited) was contracted by Puro.earth to undertake a joint production facility (validation) and output (verification) audit for the project facility “Foundation 1” to verify the CO₂ removal claims for the period spanning from 01/10/2025 to 12/12/2025. This report summarizes the results and conclusions of the production and output audit performed as a formal part of the Puro.earth certification process. Earthood declares that they are an impartial auditor, free from any conflicts of interest, capable, and qualified to complete this audit according to Puro Standard and related Validation and Verification Requirements/6/.

“Foundation 1” is a Biochar Production Facility located in Soma Farm (Bati), Kna Village, Krang Thnong Commune, Bati District, Takeo Province, Cambodia, as verified during the onsite audit/10/. Biochar for this project is derived from agricultural residues, primarily rice husk from rice mills, effectively locking carbon in a stable form. Once produced, the biochar is applied in soil amendments ensuring long-term carbon sequestration. The CO₂ removal supplier is Arukah Capital Pte Ltd and retains the sole ownership of the carbon credits as confirmed from the partnership agreement with Soma Farm/12/.

The project uses a continuous pyrolysis system for the generation of biochar. The pyrolysis unit operates at a temperature of approximately 550°C as confirmed from the pyrolysis unit manufacturer specifications/45/ and yields biochar characterized by an organic carbon content above 45% and a hydrogen-to-carbon ratio below 0.7 as confirmed from the Control Union Vietnam Co. Ltd. reports /35, 36/. Process off-gases are captured and reused to meet the energy requirements of the facility, with the majority recycled back into the system and combusted under controlled conditions for safe management as confirmed from the flue emissions testing report by General Department of Basic Technical and Environmental Laboratory /18/, process flow/1, 29/ and interviews with monitoring personnel during the on-site audit/10/.

1.1 OBJECTIVES

The objective of this audit is to conduct a third-party assessment of the operational and administrative processes of the production facility, as well as the output generated, and CO₂ removals achieved during the period from 01/10/2025 to 12/12/2025. The project activity has a 5-year renewable crediting period starting from 01/10/2025 to 30/09/2030. The assessment verifies compliance of all project documentation and supporting materials with the rules and requirements of the Puro Standard General Rules Version 4.2 /5/. In particular,

- Project conformance to the applied biochar methodology Edition 2022 v3.0 /3/
- Life Cycle Assessment (LCA) Report and CORC calculation /2, 3/
- Monitoring and Reporting Plan /31/
- Additionality Assessment Report /15/
- Stakeholder Consultation /21/
- Environmental and Social Safeguards /19/
- Project Description /1/

1.2 LEVEL OF ASSURANCE

Reasonable Level of assurance

Limited Level of assurance

Earthood’s approach is based on understanding the risks associated with reporting GHG emissions data and the controls in place to mitigate these risks. Earthood’s plan involved obtaining the necessary evidence, information, and explanations to provide a reasonable level of assurance. The VVB reviewed sufficient evidence to verify the project implementation, data, parameters, and emission reduction calculations for this monitoring period. Any discrepancies found during the assessment were raised as audit findings and successfully resolved. All audit findings are included in Appendix 4 of this report.

During the current facility and output audit, the VVB conducted an on-site audit of the project activity, as detailed in Section 2, and observed no substantial changes, thus meeting a reasonable level of assurance.

1.3 AUDIT TEAM

The audit involved a desk review of the relevant documentation, on-site visit, and technical review. The audit team and their roles in this assessment were as follows. The assessment team’s qualifications are attached as Appendix 5.

Roles allocated to the assessment team							
Role	Name	Nature of involvement					Technical Review
		Desk Review	On Site Visit	Reporting	Supervision		
Team Leader & Methodology Expert	Mehr Munjal	Y	Y	Y	Y	-	
Validator/Verifier	Shubham Patil	Y	Y	Y	N	-	
Technical Reviewer & Methodology Expert	Deepika Mahala	-	-	-	-	Y	

2 AUDIT PROCESS

A planned series of audit activities were conducted during the on-site audit to independently validate and verify facility operations, production, and output data, and CORC Claims. The on-site audit was conducted following the specifications of Puro Standard General Rules version 4.2 /5/ and the Puro Biochar Methodology Edition 2022 version 3 /4/. Specific audit activities conducted are summarized below.

1. **Opening meeting:**
 - a. Conducted an initial meeting to outline the audit objectives, scope, and methodology.
 - b. Reviewed key operational measurement points and instrumentation used in the facility.
 - c. Review of ownership details, roles and responsibilities of the removal suppliers.

2. **System Inputs and Outputs Review:**
 - a. Examined the inputs (biomass feedstock) and outputs (biochar) of the production system.
 - b. Verified the accuracy and consistency of input and output data.
3. **Records Examination:**
 - a. Inspected records related to the receipt of feedstock, including delivery slips and inventory logs.
 - b. Reviewed production logs detailing the daily operation of the kilns and production outputs.
 - c. Assessed the utilization and maintenance records of the equipment used in production.
4. **Data Collection and Material Handling Procedures:**
 - a. Evaluated data collection methods and tools to ensure accurate tracking of production metrics.
 - b. Observed material handling procedures to ensure compliance with operational standards and efficiency.
5. **Equipment and Calibration Review:**
 - a. Checked the calibration records for all measurement instruments and equipment used in the production process.
 - b. Ensured that all equipment was properly maintained and functioning correctly.
6. **Safety and Social Security Arrangements:**
 - a. Assessed the safety measures in place at the production facility, including worker safety protocols and emergency procedures, fire safety protocols.
 - b. Reviewed social security arrangements for employees to ensure compliance with local regulations and standards.
 - c. Interview with local stakeholders to confirm the engagement process and ongoing grievance mechanisms.
7. **Compliance Checklist:**
 - a. Used the Puro Biochar Methodology Compliance Checklist to systematically verify adherence to the specified standards.
 - b. Documented findings and ensured all criteria were met, with any discrepancies noted and addressed.
8. **CORC Claims Verification:**
 - a. Independently validated and verified the facility's CO₂ Removal Certificates (CORCs) claims.
 - b. Cross-checked CORC claims against the production and output data to ensure accuracy and legitimacy.

These activities collectively ensured a comprehensive audit of the biochar production plant, validating its operations, data integrity, and compliance with the Puro Biochar Methodology version 3.0 /4/.

List of Interview conducted during on-site audit are as follows.

S. No	Interviewee			Date	Team member(s)	Audit Activity
	First Name	Last Name	Affiliation			
1.	Joanna	Yeo Hui En	Arukah Capital Pte. Ltd.	26/01/2026	Mehr Munjal, Shubham Patil	1. Opening meeting: Introduction, scope and objective of work, roles and responsibilities of audit team, resources required, and timetable of the onsite audit. 2. Project Activity (Technology, Location and Implementation) 3. Applicability of methodology 4. Project boundary and emission sources included in the project boundary. 5. Baseline identification 6. Additionality of the project activity (Baseline alternatives, carbon consideration, Investment analysis)
2.	Nicole	Mah	Arukah Capital Pte. Ltd.			
3.	Zech	Lung	Arukah Capital Pte. Ltd.			
4.	Vireak	Than	Soma Farm, local stakeholder	26/01/2026		
5.	Norn	Sem	Soma Farm, local stakeholder	26/01/2026		
6.	Pich	Sovannary	SCG Logistic (biomass supply aggregator)	26/01/2026		

						7. Physical inspection of the site including observation of biochar production facility, biomass source site and biochar end use sites.
<p>Questions asked to Stakeholders:</p> <ol style="list-style-type: none"> 1. Did you receive a questionnaire regarding biochar project from Arukah Capital? 2. What type of questions did the biochar questionnaire include? 3. What is your feedback regarding the project? 4. Do you have any concerns regarding the project? 5. Is there an open channel to provide feedback or grievance about the project? <p>The information provided by the stakeholders has been found to be consistent with the Puro Stakeholder Engagement Report/21/. The stakeholders who majorly include biomass feedstock suppliers, and the biochar end-users were interviewed during the on-site visit /10/.</p>						

3 RESOLUTION OF FINDINGS

The process for raising the findings (corrective actions, non-conformities, or other findings) by the assessment team was carried out during the desk review phase and from the site visit observations and discussions. As an outcome of the audit process, the assessment team can raise different types of findings according to the following understanding:

1. A clarification request (CL) is raised where information is insufficient or not clear enough to determine whether the applicable requirements of the registry have been met.
2. When a non-conformance arises, the team leader raises a Corrective Action Request (CAR). CAR is issued, where:
 - a. The project participant made mistakes that would influence the ability of the project activity to achieve real, measurable, and additional emissions reduction.
 - b. The standard and methodology requirements have not been met; there is a risk that emissions reductions cannot be monitored or calculated.
 - c. The auditing process may be halted until this information is made available to the team leader's satisfaction. Information or clarification provided as a result of CL may also lead to CAR.
3. A Forward Action Request (FAR) will be raised when certain issues related to project implementation are reviewed during the following validation/verification assessment.

During the combined Production Facility Audit and Output Audit, a total of 13 CLs and 03 CARs were raised and resolved satisfactorily. The list of CARs/CLs raised, and the responses provided, means of verification, reasons for their closure, and references to corrections in the relevant documents are provided in Appendix 4 of this report. No FAR was raised during this assessment.

4 PRODUCTION STANDING DATA

GENERAL INFORMATION	
Production Facility Name	Foundation 1
Facility ID	526866
CO ₂ Removal Supplier registering the production facility	Arukah Capital Pte Ltd (Business ID: 202125948Z)
Location	Soma Farm (Bati), Kna Village, Krang Thnong Commune, Bati District, Takeo Province, Cambodia
Biochar used for which CORCs are reported in this period (metric tonnes)	325.19
Verified CORC Factor	1.05 CORCs per ton biochar*
Verified CORCs for the reporting period from 01/10/2025 to 12/12/2025	340.76-ton CO ₂ eq CORCS
Removal Methodology for which the plant is eligible to receive CORCs	Biochar Methodology Edition 2022 V3
Production facility has benefitted from public funding	No
Removal method specific information as may be specified in the relevant removal method methodology	Biochar, Pyrolysis Process

*The CORC factor as calculated in the CORC summary sheet corresponds to 1.05 (rounded to nearest 2 decimal places) which on multiplication with the quantity of biochar for which CORCs are claimed, 325.19 yields 340.76 CORCs.

5 QUANTIFICATION OF CO₂ REMOVAL

CORCs have been quantified in line with the equation provided in Puro Biochar Methodology edition 2022 version 3/4/.

$$\text{CORCs} = E_{\text{stored}} - E_{\text{biomass}} - E_{\text{production}} - E_{\text{use}}$$

INPUT	VERIFIED RATE	UNIT	NOTES (Specifications, source, etc)
Biomass supply inputs (collection, handling, transportation emissions), (E_{biomass})	11.34	tonne CO ₂ -eq	Emissions arise primarily from the delivery of rice husks from rice mills to the biochar production facility. Each trip is documented in the biomass usage records /37/, which include the source address and the corresponding transport distance. These distances were further verified by the assessment team through the transportation screenshots provided

			<p>by the CO₂ Removal Supplier /51/ and the distances of these facilities on Google maps during the desk review.</p> <p>As primary fuel consumption data are unavailable, transportation emissions are estimated using a distance-based approach with secondary data. Fuel consumption per trip is calculated via a weighted distance method, in which total fuel use is derived by multiplying the loaded travel distance by the vehicle-specific fuel consumption rate.</p> <p>Route distances for trips are measured using Google Maps /51/, while fuel consumption factors are obtained from transport truck specifications provided by Machmall /49/.</p> <p>In Volume 2, Chapter 3 of the 2006 IPCC Guidelines /52/, the default emission factor for diesel is reported as 74,100 kgCO₂/TJ. To express this value on a volumetric basis, it was converted using the Net Calorific Value (NCV) of diesel (43 MJ/kg) as provided in Volume 2, Chapter 1 /52/ and the density of diesel (0.84 kg/L) as reported in IEA Energy Statistics /60/. Applying these parameters yields a final emission factor of 2.68 kgCO₂ per litre of diesel. Emissions are then calculated from the modelled fuel consumption using this emission factor of 2.68 kg CO₂/L. This approach ensures that transportation emissions are estimated in a conservative, transparent, and reproducible manner.</p> <p>Emissions from cultivation and harvesting are considered zero, as the biomass feedstock (rice husk) /53/ is a non-field agricultural residue collected from local rice mills and does not incur additional emissions from dedicated harvesting activities.</p>
<p>Production and operation emissions output (E_{production})</p>	<p>70.81</p>	<p>tonne CO₂-eq</p>	<p>Key emission sources during this stage include biomass handling activities (e.g., loaders), on-site LPG combustion, and electricity consumption, which together account for the majority of operational emissions. Additional embedded emissions arise from the manufacture and use of pyrolysis equipment and associated infrastructure including materials such as low-alloy steel,</p>

			<p>stainless steel as well as electricity consumed during equipment production. These emissions have been defined by the CO₂ Removal Supplier in the LCA model sheets /3/ and were verified by the assessment team through electricity bills /40/, LPG purchase invoices /43/, diesel Purchase invoices /44/ and Manufacturer specifications /45/.</p>
<p>Product distribution emissions output (E_{use})</p>	<p>1.65</p>	<p>tonne CO₂-eq</p>	<p>Emissions primarily arise from the transportation of biochar to the end use sites and to the biofertilizer producing facility. These emissions due to transportation are calculated in a similar way to the calculation for the transportation of biomass.</p> <p>Fuel consumption per trip is calculated using a weighted distance method, where total fuel use is derived by multiplying the loaded distance by the fuel consumption rate for vehicles. Route distances for trips are measured using Google Maps /51/ and the fuel consumption factors are obtained from the transport truck specifications by Japan Motors /55/.</p> <p>In Volume 2, Chapter 3 of the 2006 IPCC Guidelines /52/, the default emission factor for diesel is reported as 74,100 kgCO₂/TJ. To express this value on a volumetric basis, it was converted using the Net Calorific Value of diesel (43 MJ/kg) as provided in Volume 2, Chapter 1 /52/ and the density of diesel (0.84 kg/L) as reported in IEA Energy Statistics /60/. Applying these parameters results in a final emission factor of 2.68 kgCO₂ per litre of diesel. This factor is then used to calculate emissions based on the modelled fuel consumption.</p> <p>This calculation applied is confirmed by the assessment team through the LCA sheets /3/, The distance of production facility to the biofertilizer facility was confirmed by the address of the facility mentioned in records of biochar produced /37/ and transportation screenshots /51/. The assessment team verified the distance between the production facility and the biochar end-use site by physically travelling to the</p>

			end-use location during the onsite audit /10/.
E _{stored}	424.56	tonne CO ₂ -eq	<p>E_{stored} is calculated in line with the applied Puro earth biochar methodology/4/.</p> $E_{stored} = Q_{biochar} \times C_{org} \times F_p^{TH,TS} \times 44 / 12$ <p>a. The amount of biochar produced over the reporting period expressed as dry metric tonnes is verified as 325.19 metric tonnes, verified through biochar offtake notes/39/, from the LCA sheets/3/.</p> <p>b. The organic carbon content of biochar has been verified as 0.475 as verified from the Control Union Vietnam biochar quality analysis reports /35, 36/</p> <p>c. The permanence factor is calculated in line with the applied biochar methodology/4/ considering soil temperature for humid and tropical soils as 25°C /33/.</p>
Biochar used for which CORCs are claimed	325.19	Dry metric tonnes	<p>The biochar soil end-use and the records of biochar supplied to Huy Yun Agriculture Co. Ltd for fertilizer production, have been provided by the CO₂ removal supplier /39/. Further, CO₂ Removal Supplier has also provided the agreement with Huy Yun Agriculture /14/.</p> <p>The bags of biochar at the production facility are weighed with the help of a calibrated weighing scale observed onsite by the assessment team/10/ and CO₂ removal supplier has provided the calibration certificate for the weigh scale /47/.</p> <p>The value of biochar used has been consistently reported in the LCA model /3/ and the CORC summary sheet /2/ and has been verified by the assessment team.</p>
CORCs issued	340.76	CORCs	The value has been calculated in line with the quantification method in the applied methodology/4/. The calculation has been traceably demonstrated in the CORC report

		summary/2/ in line with the Puro LCA model/3/ and production facility operational data /37/. The data was verified by the assessment team during the desk review and on-site audit/10/.
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Formula CORCS = $E_{\text{stored}} - E_{\text{biomass}} - E_{\text{production}} - E_{\text{use}}$		
E_{biomass}	11.34/325.19	0.03 tonne CO ₂ -eq/tonne biochar
$E_{\text{production}}$	70.81/325.19	0.22 tonne CO ₂ -eq/tonne biochar
E_{use}	1.65/325.19	0.01 tonne CO ₂ -eq/tonne biochar
E_{stored}	424.56/325.19	1.31 tonne CO ₂ -eq/tonne biochar
CORC Factor	340.76/325.19	1.05 CORCs/tonne biochar
H:C_{org}	0.352	

The initial claim amounted to 338.49 CORCs, while the final reconciled claim totalled 340.76 CORCs. Hence, the final CORC value differs from the initial CORC value, due to adjustments summarized in the following table.

Initial claim of CORCs	Audit Adjustments done	Final value of CORCs
338.49 CORCs	<p>a) Adjustment in October electricity consumption The recorded consumption value for October was revised from 5,194 kWh to 1,528 kWh, in line with the figure stated on the electricity bill for that month. (Refer to CL 11 in Appendix 4 of the report)</p> <p>b) Adjustment of steel emission factor The emission factor for steel was revised from 1.89 tCO₂e/tonne to 1.68 tCO₂e/tonne, based on World Steel data for Engineering Steel (Asia). (Refer to CAR 03 in Appendix 4 of the report)</p>	340.76 CORCs

These adjustments in electricity consumption and emission factor of steel have led to the change in originally claimed CORC value of 338.49 CORC to 340.76 CORCs. These adjustments in the revision of October electricity consumption and the update to the steel emission factor resulted in a change to the CORC claim. The originally reported value of 338.49 CORCs was revised to a final reconciled value of 340.76 CORCs.

6 FINAL OPINION

Based on the assessment team’s comprehensive review of the project documentation, thorough site inspection, and subsequent follow-up actions, Earthood Services Limited has gathered sufficient evidence to conclude that the production facility “Foundation 1” meets the requirements outlined in the Puro Standard General Rules Version 4.2. We confirm that the Puro Biochar Methodology Edition 2022 version 3 has been correctly applied for output and CO₂ removal calculation.

The project implementation aligns closely with the information provided in the project documentation, and monitoring procedures adhere to the prescribed methodology. Furthermore, the removals achieved during the current monitoring period have been accurately calculated without significant discrepancies.

Our verification approach is grounded in a deep understanding of the risks associated with reporting GHG emission data and the implementation of controls to mitigate these risks effectively. Based on the evaluated information, we affirm that the emission removals for the reporting period from 01/10/2025 to 12/12/2025, amount to 340.76 CORCs.

Therefore, Earthood Services Limited confirms the production facility's capability to effectively remove CO₂ and requests the issuance of CORCs for the first reporting period.

APPENDIX 1: METHODOLOGY COMPLIANCE CHECKLIST

Methodology Compliance Checklist		
Section 1.1 Eligible activity type		
1.1 Requirements for activities to be eligible under the methodology		Requirement met?
	Verification Method	
1.1.1 Biochar must be used in applications that preserve its carbon storage property (e.g. greenhouse substrates, surface water barrier, animal feed additive, wastewater treatment, insulation material, landfill/mine absorber, soil additive). Biochar must not be used in applications that destroy its carbon storage, e.g. fuel or reductant uses.	<p>The biochar is used for soil application, where it is blended with organic components to improve soil physical quality, moisture retention, and nutrient-holding capacity. A portion of the produced biochar is applied directly to nearby farms, while the remainder is supplied to a facility that manufactures biochar-based fertilisers. The CO₂ removal supplier has provided the agreement with this fertiliser facility /14/.</p> <p>The assessment team verified biochar delivery through offtake delivery notes /39/ and confirmed its soil application during the on-site audit /10/. Additionally, the team visited the end-use sites and conducted interviews with end-users to ensure that the biochar is not used in applications that would compromise its carbon storage stability, during the onsite audit /10/.</p>	Yes
1.1.2 Biochar must be produced from sustainable biomass:	The source biomass has been classified as category L “Non field agricultural residues” in accordance with the Puro biomass sourcing criteria/9/. In line with the	Yes

<p>sustainably sourced biomass, or waste biomass such as agricultural waste, biodegradable waste, urban wood waste or food waste.</p>	<p>criteria, the rice mills providing the biomass to the CO₂ Removal Supplier are registered members of the Cambodia Rice Federation /53/. Further, the CO₂ Removal Supplier has also provided the ISO certifications of these rice mills /54/, which specify compliance with internationally recognized standards for quality management, environmental management, or other relevant operational protocols, thereby supporting the traceability and credibility of the biomass sourcing process.</p>	
<p>1.1.3. The producer must demonstrate net-negativity with results from a life cycle assessment (LCA) or carbon footprint of the biomass production and supply, the biochar production process, and of the biochar use, including disaggregated information on the emissions arising at different stages and from different greenhouse gases. The LCA shall follow the general principles defined in ISO 14040/44 and the scope defined in this methodology (sections 3 and 4).</p>	<p>CO₂ Removal Supplier has conducted the Life Cycle Assessment and has considered emissions from biomass production and supply, the biochar production process, and end use of the biochar. These emissions have been appropriately and traceably determined in the LCA model /3/ and follow the Puro earth biochar methodology/4/</p>	<p>Yes</p>
<p>1.1.4. In the biochar production process, the use of fossil fuels (coal, oil, natural gas) for ignition, pre-heating, or heating of the pyrolysis reactor is permitted. However, the co-firing of fossil fuels and biomass in the same reaction chamber is not permitted, as fossil carbon may be mixed with the biochar product. The greenhouse gas emissions associated with use of these fuels must be included in the LCA (i.e. supply of fuel, combustion of fuel, fugitive emissions), as for any other energy and</p>	<p>During the site visit, the assessment team observed no co-firing in the retorts at the plant site. This was further confirmed through interviews with facility personnel /10/. In addition, the team reviewed the facility's fuel usage records /43/, and all associated greenhouse gas emissions from fuel combustion have been accounted for in the LCA model /3/. Accordingly, the requirement is met</p>	<p>Yes</p>

material input used during the production process		
1.1.5. In the biochar production process, the pyrolysis gases must be combusted or recovered through an engineered process that either negates or makes negligible any methane emissions to the atmosphere. Bio-oil and pyrolysis gases can be stored for later use as renewable energy or materials.	The syngas is redirected back to the combustion chamber that envelops the rotary kiln for complete combustion, ensuring that no unburned syngas is released through the chimney as confirmed through the Environmental and Social Safeguard Questionnaire /19/ and the Environmental Evaluation Report /20/. CO ₂ removal supplier has described the process flow and design of the production facility in the Project Description /1/. This information was further verified by the assessment team through review of facility photographs and direct observation of the production process during the onsite audit /10/. Additionally, any condensed oil is also redirected to the combustion chamber. As a result, methane emissions to the atmosphere are confirmed to be negligible	Yes
1.1.6. The biochar produced must have a molar H/C_{org} ratio lower than 0.7. The HC_{org} ratio is an indicator of the degree of carbonization and therefore of the biochar stability. Values exceeding 0.7 are an indication of non-pyrolytic chars or pyrolysis deficiencies	The biochar test reports /35/ and certificate of analysis of the biochar from Control Union Vietnam Co. Ltd, dated 10/12/2025 /36/. These documents confirms that the produced biochar has a H/C_{org} of 0.35 which is well below 0.7 as described by the Puro earth biochar methodology/4/.	Yes
1.1.7. The biochar produced must meet any product quality requirements existing in the jurisdiction where biochar is used and for the specific applications considered. In other words, the biochar produced must be legal to use in the manner proposed.	The biochar produced under the project is not used or marketed as a standalone product. Instead, it is blended with organic matter and applied solely as a soil amendment. The biochar test report from Control Union Vietnam /35/ confirms that the produced biochar meets relevant quality requirements. As Cambodia currently has no legally defined product quality standards specifically applicable to biochar, in accordance with the methodology the project benchmarks its biochar against the WBC-Agro (World Biochar Certificate – Agro) thresholds by conducting the testing for PAHs and heavy metal content. CO ₂ removal supplier has provided the results of this biochar test /58/ which specifies that PAHs and the heavy metal are well below the prescribed threshold of WBC Agro. WBC Agro standard was developed based on the EBC (European Biochar Certificate) standards, justifying the project’s applicability to this condition. /63/.	Yes
1.1.8. Measures must be taken to ensure a safe working	Measures to ensure a safe working environment, cleaner production, and the safe handling and transport of biochar have been verified through the	Yes

<p>environment, cleaner production principles (see section 5.3.6), and safe handling and transport of biochar, e.g. to prevent fire, dust and health hazards. Such safety measures include, but are not limited to, providing a Material Safety Data Sheet, post-production quenching and cooling of biochar, and appropriate flue gas treatment systems</p>	<p>Puro Earth Environmental Evaluation Report /20/, the Biochar and Working Environment Safety Plan /28/, firefighting equipment photographs /56/, and observations made during the on-site audit /10/. Accordingly, this requirement is met.</p>	
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Section 1.2 Requirements for the production facility audit		
	Verification Method	Requirement met?
<p>1.2.1 The Production Facility Auditor checks the Production Facility against the Requirements for activities to be eligible under the general rules of Puro Standard and the specific requirement in this methodology (section 1.1.), and the Proofs and evidence needed from the CO₂ Removal Supplier (section 5).</p>	<p>The assessment team confirms the production facility to be in line with Puro Standard general rules version 4.2 /5/, Additionality Assessment Requirements version 2.0 /7/, Stakeholder Engagement Requirements version 1.1 /8/ and Puro biochar methodology/4/ requirements as discussed in section 2 of this report. All evidence reviewed as part of the production facility audit are listed under Appendix 3 “References” of this report.</p>	<p>Yes</p>
<p>1.2.2. The CO₂ Removal Supplier shall be able to demonstrate Environmental and Social Safeguards and that the Production Facility activities do no significant harm to the surrounding natural environment or local communities</p>	<p>The assessment team verified the Puro Earth Environmental and Social Safeguards Questionnaire /19/, Environmental Evaluation Report /20/, Stakeholder Engagement Report /21/, and Flue Gas Emissions Report /18/, and concluded that the production facility does not cause harm to the surrounding natural environment or local communities. To further confirm this, the assessment team also conducted interviews with stakeholders, including end-users during the on-site audit /10/.</p> <p>CO₂ Removal Supplier has also provided the Biochar and Working Environment Safety Plan /28/, which includes a hazard identification assessment and corresponding mitigation measures—such as firefighting protocols, safe handling and storage conditions, and emergency procedures for leakages, supported by photographic evidence /56/.</p>	<p>Yes</p>

<p>1.2.3 The CO₂ Removal Supplier shall be able to demonstrate additionality, meaning that the project must convincingly demonstrate that the CO₂ removals are a result of carbon finance. Even with substantial non-carbon finance support, projects can be additional if investment is required, risk is present, and/or human capital must be developed. To demonstrate additionality, CO₂ removal Supplier must provide full project financials and counterfactual analysis based on Baselines that shall be project-specific, conservative and periodically updated. Suppliers must also show that the project is not required by existing laws, regulations, or other binding obligations.</p>	<p>In the baseline scenario of the project activity, rice husk biomass was primarily utilized as a fuel source through direct combustion to meet energy requirements. This was confirmed through publicly available peer reviewed literature such as “A critical look at rice husk gasification in Cambodia: Technology and sustainability.” - Nguyen, H. N., Ha-Duong, M., & Van De Steene, L. (2015), Department of Renewable Energies, Hanoi, Vietnam /26/. The same was confirmed during the on-site audit through interviews conducted with the biomass supplier.</p> <p>The CO₂ removal supplier has demonstrated financial additionality in accordance with the CDM Tool 27: Investment Analysis/59/. The step wise demonstration of additionality in line with the Puro Additionality Assessment Requirements/7/ is provided below:</p> <p>Step 0: Is common practice analysis needed: Is the methodology TRL 8 or 9</p> <p>The Puro Additionality Assessment Requirements, Version 2.0 /7/ defines technology readiness level (TRL) of Biochar methodology as 6-7. Since, common practice analysis is required for the technologies with TRL 8 OR 9, the demonstration of common practice analysis is not required for current project activity. Therefore, Step 1: Common Practice Analysis is not demonstrated.</p> <p>Step 2: Financial analysis options: Does the project have other income besides carbon finance? Or is capex large element in costs?</p> <p>The project activity has not received any subsidies from the government initiatives but sells the produced biochar. Therefore, project activity has income sources other than carbon finance also. Accordingly, the carbon removal supplier has demonstrated the financial additionality through investment analysis/16/.</p> <p>Since the CO₂ removal supplier supplies the biochar to end-users at a fixed cost, the project generates income beyond carbon revenue. Thus, a simple cost analysis does not demonstrate the financial viability of the project. Accordingly, a detailed investment analysis for the project with and without revenue from carbon finance has been presented by the CO₂ removal supplier/16/.</p> <p>Investment Analysis</p> <p>Under this step, it has been demonstrated that the project activity is not the most economically or financially attractive. The CO₂ removal supplier has shown the economic and financial evaluation of the project in the Financial Model sheet/16/</p> <p>Benchmark Selection:</p>	<p>Yes</p>
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	<p>IRR has been chosen as the financial indicator for the demonstration of financial unviability of the project activity in line with the financial model.</p> <p>As per para 16 of Tool 27 “Investment analysis v14.0” /59/, the applied benchmark shall be appropriate to the type of IRR calculated. Local commercial lending rates or WACC are appropriate benchmarks for a project IRR. Required/ expected returns on equity are appropriate benchmarks for an equity IRR. Benchmarks supplied by relevant national authorities are also appropriate. The DOE shall validate that the benchmarks used are applicable to the project activity and the type of IRR calculation presented.</p> <p>The default value for the cost of equity in line with Table 1 of CDM Tool 27 for Group 2 (applicable for the project) for Cambodia corresponds to 15.15 /59/.</p> <p>The IRR has been computed <<redacted for commercial sensitivity>>and calculated as <<redacted for commercial sensitivity>>Based on the result of the financial model spreadsheet, the IRR value is lower than the benchmark even in the presence of carbon revenue. The analysis is conducted in nominal terms, denominated in USD, with a 10-year forecasting period aligned with the expected lifetime of the pyrolysis equipment as warranted by the manufacturer. No public subsidies have been received or assumed. The project operates without concessional finance or government credit enhancements that would otherwise reduce the cost of capital. In the absence of carbon credit revenues, the project is loss-making and cannot achieve a positive return on financing cost incurred. This satisfies the Puro.earth financial additionality requirement that the project must not be viable without CORC revenues</p> <p>Conclusion The investment analysis demonstrates that the project activity is not financially viable in the absence of carbon removal revenues. As verified from the IRR spreadsheet without carbon revenue/16/, the IRR <<redacted for commercial sensitivity>>indicating that the project would not proceed under normal commercial conditions. When carbon revenues are included, the IRR <<redacted for commercial sensitivity>> still below the benchmark. Based on the above, the assessment team concludes that the project is not financially attractive.</p> <p>Sensitivity Analysis</p> <p>The sensitivity analysis was conducted by adjusting three critical parameters: the biochar sale price, rice husk feedstock price and the carbon credit price expressed in USD per t-CO₂, as defined in the referenced calculation sheets. The project’s cashflow exhibits greater sensitivity to carbon credit pricing than to either biochar sales price or feedstock costs. Specifically, an increase<<redacted for commercial sensitivity>>in the</p>	
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	carbon credit price results in a substantially greater improvement in cashflow compared to a proportionally equivalent increase in biochar sales price or reduction in feedstock input price. The effects of changes in these variables were evaluated with the resulting impacts reflected in the Finance Model sheet/16/.																
<p>1.2.4. The Production Facility Auditor checks that the Production Facility is capable of metering and quantifying the biochar output in a reliable manner, for the Quantification of CO₂ Removal (section 4). This check also prepares the CO₂ Removal Supplier for producing the periodic Output Report</p> <p>-The quantity of the biochar produced and sold is quantified and documented in a reliable manner (sections 4.2., 5.3., 5.4 and 5.5.)</p> <p>-Relevant meters are in place and they are calibrated</p> <p>-The emissions from cultivation, harvest and transportation of the biomass are estimated and calculated in a reliable manner (section 4.3.)</p> <p>-The material and energy use of the Production Facility can be quantified and the emissions from the process calculated (section 4.4.)</p> <p>- The emissions from biochar post-processing, transportation, and use are estimated and calculated in a reliable manner (section 4.5.)</p>	<p>The assessment team confirms that the production facility is capable of metering and quantifying biochar output in a reliable manner for quantification purposes. The following equipment is installed at the biochar facility, and its calibration has been confirmed through review of the corresponding calibration certificates provided by Thai Calibration Services Co. Ltd. /47/.</p> <table border="1" data-bbox="507 651 1169 1137"> <thead> <tr> <th>Equipment</th> <th>Certificate no.</th> <th>Date of Calibration</th> </tr> </thead> <tbody> <tr> <td>Weigh scale</td> <td>S2511564S</td> <td>17/11/2025</td> </tr> <tr> <td>Thermocouple T1</td> <td>T2511082S</td> <td>17/11/2025</td> </tr> <tr> <td>Thermocouple T2</td> <td>T2511083S</td> <td>17/11/2025</td> </tr> <tr> <td>Thermocouple T3</td> <td>T2511084S</td> <td>17/11/2025</td> </tr> </tbody> </table> <p>As the monitoring period is from 01/10/2025 to 12/12/2025, hence, CO₂ removal supplier has also provided the letters from Thai Calibration Services /57/ which confirm the compliance with calibration requirement for the weigh scales before 17/11/2025. and that all measured values were found to be within specified tolerances during the whole monitoring period.</p> <p>CO₂ Removal Supplier maintains a comprehensive biochar production log /37/, while end-use quantities are verified through offtake delivery notes /39/, ensuring that biochar production and sales figures are reliably documented and fully traceable.</p> <p>Biomass-related emissions from cultivation, harvest, and transport are estimated in accordance with the applied methodology /4/, providing a robust and verifiable basis for calculation. The assessment team further verified the CORC Summary Report /2/ and LCA model sheets /3/. In addition, the supplier submitted the Mass and Energy Balance of Production Process Assessment Sheet /29/, the input values of which were cross-checked against on-site production logs /10/ and confirmed to be accurate and traceable.</p>	Equipment	Certificate no.	Date of Calibration	Weigh scale	S2511564S	17/11/2025	Thermocouple T1	T2511082S	17/11/2025	Thermocouple T2	T2511083S	17/11/2025	Thermocouple T3	T2511084S	17/11/2025	Yes
Equipment	Certificate no.	Date of Calibration															
Weigh scale	S2511564S	17/11/2025															
Thermocouple T1	T2511082S	17/11/2025															
Thermocouple T2	T2511083S	17/11/2025															
Thermocouple T3	T2511084S	17/11/2025															

<p>-The auditor goes through the Quantification of CO₂ Removal requirements with the CO₂ Removal Supplier, so that the Supplier is able to calculate the CO₂ Removal independently in its Output Report.</p>		
<p>1.2.5. Collection of standing data of the Production Facility. The Production Facility Auditor collects and checks the standing data of the Production Facility and the CO₂ Removal Supplier.</p>	<p>The standing data of the production facility has been verified by the assessment team including business registration of CO₂ removal supplier/11/, factory license /17/, location of production facility/1/, date of first end-use application through delivery invoices /39/. And Environmental and social safeguards evidence/19, 20 28/</p>	<p>Yes</p>

Section 5.2 Biomass Production and supply		
	Verification Method	Requirement met
<p>5.2.1 Proof of origin and sustainability of the biomass feedstock used must be kept in records, be submitted to Puro, and made available for Output audits.</p> <p>In the case of other non-forest waste biomass:</p> <p>-Raw material needs to be sourced sustainably; however, certificates are not needed, as it is waste material.</p>	<p>In accordance with the Puro.earth Biomass Sourcing Criteria version 1.1 /9/, the feedstock biomass (rice husk) is classified under Category L: Non-field agricultural residues. The CO₂ Removal Supplier has submitted ISO certifications for the supplying rice mills /54/, and membership of these mills in the Cambodia Rice Federation (CRF) has been verified via the official CRF website /53/. This confirms that the mills are registered members of the national apex body for the rice sector, thereby ensuring sectoral oversight and adherence to applicable national standards and industry best practices.</p>	<p>Yes</p>
<p>5.2.2 Lifecycle assessment data for the biomass production and supply must be provided and documented.</p>	<p>CORC Report Summary/2/ and LCA model/3/ has been verified by the assessment team and found to be in line with the quantification requirements of the applied methodology/4/.</p>	<p>Yes</p>

Section 5.3 Biochar Production

	Verification Method	Requirement met
<p>5.3.1 The biochar producer must provide data trail and documentation on the amount of biochar produced. This includes:</p> <p>i. Continuous documentation of production for the whole period, taking into account any significant changes or stops in production</p> <p>ii. Data and methodology applied to calculate the dry mass of biochar produced</p>	<p>The assessment team verified the production facility's biochar production records /39/ during the on-site audit /10/, confirming that documentation is maintained in a complete and reliable manner. The working procedure and flowsheet diagram of the biochar production process were also reviewed and verified by the team /1, 10/. In addition, the protocol used to calculate the dry mass of biochar produced /34/ was examined and confirmed to be appropriate and consistently applied.</p>	<p>Yes</p>
<p>5.3.2 The biochar producer must, at a minimum, provide the following data on the amount of biochar produced:</p> <p>i. Continuous load cell measurement of the biochar production for the whole period</p> <p>ii. Water input measurement</p>	<p>The output biochar is weighed using a calibrated weigh scale/47, 57/ and the weight is recorded manually by the plant personnel. The production facility records/37, 38, 39, 40/ were verified by the assessment team during the onsite audit/10/.</p>	<p>Yes</p>
<p>5.3.3 Life cycle assessment data for the biochar production process must be provided and documented. In particular, climate change impact must be presented in a disaggregated way exhibiting the contribution of the different life cycle stages described in section 4.4, as well as the contribution of major greenhouse gases.</p>	<p>The LCA model sheets /3/ have been reviewed by the assessment team and the calculations are demonstrated in a retraceable manner.</p>	<p>Yes</p>
<p>5.3.4 Biochar laboratory analysis - total organic carbon content, total hydrogen content, and calculated H/C_{org} ratio.</p>	<p>The assessment team verified the Biochar Quality Analysis Test Reports /35/ and the Certificate of Analysis of Biochar issued by Control Union Vietnam Co. Ltd. on 01/12/2025 /36/. The results confirm that the total organic carbon content, total hydrogen content,</p>	<p>Yes</p>

	and calculated H/Corg ratio are all in compliance with the requirements of the applied methodology /4/	
5.3.5 Additional biochar properties must be determined via laboratory analysis as per the quality requirements for each type of biochar application. This typically includes testing for PAHs and heavy metal contents.	Additional properties of biochar including the PAH content and heavy metal content is reported in the Certificate of Analysis of Biochar /36/ and Biochar Lab Results Complies to WBC Agro /58/.	Yes
5.3.6 The CO ₂ Removal Supplier must have a protocol in place to ensure both representative sampling (i.e. biochar sent for analysis is representative of the batch produced) and appropriate testing frequency (i.e. biochar is sent for analysis as often as needed to reflect variability and seasonality in biomass feedstock and production conditions) of the biochar produced	<p>Biochar testing is conducted monthly, with samples collected after the completion of the pyrolysis process. Since biochar production is continuous throughout the month, sampling is carried out during the second week. Within this week, samples are taken every 8 hours over five production days, resulting in 15 samples in total. Each sample weighs 100g, forming a composite sample of at least 1.5 kg, which is then sent to the laboratory for testing /32/.</p> <p>The CO₂ removal supplier has provided test results for October, November, and December, covering the entire monitoring period /35/. These tests were performed by Control Union Vietnam Laboratory, accredited by the National Accreditation Bureau under Accreditation No. VILAS 1168 /65/. In addition, the supplier has submitted chain of custody documents confirming that samples were transferred from the biochar facility to Control Union Cambodia, and subsequently to Control Union Vietnam /67/.</p> <p>This detailed sampling protocol, provided by the CO₂ removal supplier /32/, is consistent with the Puro Methodology /4/. Furthermore, it adheres to the World Biochar Certificate (WBC-Agro) guidelines and the European Biochar Certificate analytical methods, which are based on international standards such as ISO, DIN, and VDLUFA (e.g., DIN 51718, DIN 51726, DIN 51732, DIN ISO 10390, DIN EN ISO 17294-2) /63, 64/.</p>	Yes
Section 5.3.7 The CO ₂ Removal Supplier must comply with local environmental regulations, with respect to emissions of pollutants to air, water, and soil.	The Flue gas emission tests reports /18/, Puro Earth Environmental and Social Safeguards questionnaire /19/, Approval from MoE – Kingdom of Cambodia /62/ and Puro earth environmental evaluation report /20/, have been verified by the assessment team and it is confirmed that the CO ₂ removal supplier complies with local environmental regulations with respect to emissions of pollutants to air, water and soil.	Yes

Section 5.4 Biochar Use		
	Verification Method	Requirement met

<p>5.4.1. Life cycle assessment data for the biochar use must be provided and documented.</p>	<p>CORC Report Summary/2/ and LCA model/3/ has been verified by the assessment team and found to be in line with the quantification requirements of the applied methodology/4/.</p>	<p>Yes</p>
<p>5.4.2. Proof that the end-use of the product does not cause CO₂ to return to the atmosphere (it is not used as fuel or reductant) must be kept in records, be submitted to Puro, and made available for Output audits. The proof can be an offtake agreement, documentation of the sale or shipment of the product, indicating the intended use of the product</p>	<p>The assessment team verified photographic and video evidence of soil application /10/, as well as invoices and delivery records documenting biochar end-use /39/. In addition, interviews conducted with biochar end-users during the on-site audit /10/ confirmed that the biochar is not used as fuel or as a reductant, thereby ensuring the permanence of carbon storage.</p>	<p>Yes</p>
<p>5.4.3. Justification on the soil temperature selected for the calculation of the biochar carbon sequestration</p>	<p>Soil temperature data were obtained from independent, publicly available research sources and peer-reviewed studies /33/. The assessment team verified the geocoordinates of the biochar soil application sites and confirmed that the temperature values selected for calculation are consistent with those reported in publicly available research.</p>	<p>Yes</p>

<p>Section 5.5 No double counting</p>		
	<p>Verification Method</p>	<p>Requirement met</p>
<p>5.5.1. Double counting is avoided by the use of the Puro Registry, with a system of unique identification of each CORC that guarantees it is only used once. Each CORC in the registry contains information on Production Facility registration and crediting period dates, verification, issuance and cancellation transactions as well as the title and ownership over time.</p>	<p>The unique facility ID for the production facility is 526866 provided by Puro registry verified through facility registration details provided by Puro.</p>	<p>Yes</p>
<p>5.5.2 A statement is needed from the CO₂</p>	<p>CO₂ removal supplier has provided a statement that the underlying physical</p>	<p>Yes</p>

<p>Removal Supplier that the underlying physical product (biochar) in which the CO₂ is stored will not be sold or marketed as “climate positive” if the CO₂ removal certificate associated with the underlying physical product (biochar) is removed from the underlying product and sold to another stakeholder not associated with the underlying physical product.</p>	<p>product (biochar) in which CO₂ is stored will not be sold or marketed as “climate positive” if the CO₂ removal certificate associated with the underlying physical product (biochar) is removed from the underlying product and sold to another stakeholder not associated with the underlying physical product /30/.</p>	
<p>5.5.3. Check of the packaging of the product (how the product is branded) is needed, if CO₂ removal certificate associated with the underlying physical product (biochar) is removed from the underlying product</p>	<p>The produced biochar is not packaged, as it is directly blended with fertilizer and applied to agricultural soil. This was confirmed by the assessment team during the on-site audit /10/.</p>	<p>Yes</p>
<p>5.5.4. No marketing and branding claims can be made by the end-user (user of biochar) that the underlying physical product (biochar) is a carbon sink, when the decoupled CO₂ removal certificate has been sold to and accounted by another stakeholder not re-associated with the underlying physical product. The proof can be an offtake agreement, documentation of the sale or shipment of the product, indicating the procedures for claiming the CO₂ removal certificate</p>	<p>It is confirmed that no marketing and branding claims are made by the end-user that the underlying physical product is a carbon sink, as confirmed during interviews by the end-users during the on-site audit/10/.</p>	<p>Yes</p>

APPENDIX 2: ABBREVIATIONS

Abbreviations	Full texts
CAR	Corrective Action Request
CL	Clarification Request
FAR	Forward Action Request
Earthood	Earthood Services Limited
CORC	CO ₂ Removal Certificate
GHG	Greenhouse Gas(es)

PPD	Puro Project Description
VVB	Validation and Verification Body
LCA	Life Cycle Assessment
CDR	Carbon dioxide Removal

APPENDIX 3: REFERENCES

Sr. no	Title	Version	Provider
1.	Foundation 1 Project Description Document	Dated: 04/02/2026	Arukah Capital
2.	CORC Report Summary - 'Puro_CORC Report Summary - Biochar - Supplier Template v2025 - Project Foundation v1 (2 Feb 2026)'	Dated: 02/02/2026	Arukah Capital
3.	LCA Model Spreadsheets <ul style="list-style-type: none"> • Puro_LCA Model - Biochar - Foundation (Oct 25 - Real Data - 2 Feb 2026) • Puro_LCA Model - Biochar - Foundation (Nov 25 - Real Data - 2 Feb 2026) • Puro_LCA Model - Biochar - Foundation (Dec 25 - Real Data - 2 Feb 2026) 	Dated: 02/02/2026	Arukah Capital
4.	Puro Biochar methodology (Edition 2022)	Version 3	Puro Earth
5.	Puro Standard General Rules	Version 4.2	Puro Earth
6.	Puro Validation and Verification Requirements	Version 1.2	Puro Earth
7.	Puro Additionality Assessment Requirements	Version 2.0	Puro Earth
8.	Puro Stakeholder Engagement Requirements	Version 1.1	Puro Earth
9.	Puro Biomass Sourcing Criteria	Version 1.2	Puro Earth
10.	Onsite Assessment records	26/01/2026	VVB
11.	Arukah Capital Pte Ltd: <ul style="list-style-type: none"> • Business Profile • Company Extract (Agreement stating the relation between Arukah Capital Pte. Ltd. and Arukah Frontier (Cambodia) Co. Ltd.) 	Dated: 26/07/2021 Dated: 24/01/2025	Arukah Capital
12.	Partnership Agreement between Soma Farm (Cambodia) Co. Ltd and Arukah Capital Pte. Ltd.	Dated: 23/02/2025	Arukah Capital
13.	Lease Agreement of Soma Farm (Cambodia) Co. Ltd and Arukah Frontier (Cambodia) Co. Ltd.	Dated: 01/10/2025	Arukah Capital
14.	Biochar Trial Collaboration Agreement between Arukah Frontier (Cambodia) Co., Ltd. and Huy Yun Agriculture Co., Ltd.	Dated: 12/12/2025	Arukah Capital

15.	Puro Baseline and Additionality Assessment - 2a_Puro Additionality v1.9 (8 Dec 2025)	Dated: 08/12/2025	Arukah Capital
16.	Financial Model – Foundation 1 Arukah Capital	Dated: 08/12/2025	Arukah Capital
17.	Factory License – Arukah Frontier (Cambodia)	-	Arukah Capital
18.	Flue gas emissions report by General Department of Basic Technical and Environmental Laboratory	Dated: 15/11/2025	Arukah Capital
19.	Puro Environmental and social safeguards questionnaire (3a_Environmental and Social Safeguards (December 2025))	Dated: 08/12/2025	Arukah Capital
20.	Puro Environmental evaluation report (3b_Environmental Evaluation Report (08.12.2025))	Dated: 08/12/2025	Arukah Capital
21.	Puro Stakeholder Engagement Report (3d_Puro Stakeholder Engagement Report (November 2025))	Dated: 15/08/2025	Arukah Capital
22.	Stakeholder Consultation meeting – Invitation Letter	-	Arukah Capital
23.	Stakeholder Consultation meeting – Attendance list	Dated: 30/05/2025	Arukah Capital
24.	Stakeholder Consultation meeting – Biochar Project Feedback and Questionnaire	Dated: 30/05/2025	Arukah Capital
25.	Biomass types and origins list	Dated: 08/08/2025	Arukah Capital
26.	Document stating the use of raw material (rice husk) in the baseline scenario: (Nguyen, H. N., Ha-Duong, M., & Van De Steene, L. (2015). A critical look at rice husk gasification in Cambodia: Technology and sustainability. Department of Renewable Energies, Hanoi, Vietnam https://www.researchgate.net/publication/278755115_A_critical_look_on_rice_husk_gasification_in_Cambodia_engineering_and_sustainability)	Dated: 2015	Others
27.	Document stating the moisture content of raw material (rice husk) {Cambodian Rice mill standard - http://www.crf.org.kh/ }	-	Cambodia Rice Federation
28.	Biochar and Working Environment Safety plan	Dated: 08/08/2025	Arukah Capital
29.	Mass and Energy Balance of Production Process	-	Arukah Capital
30.	Statement of understanding of physical product decoupling	Dated: 20/08/2025	Arukah Capital
31.	Monitoring, Reporting and Verification Plan by Arukah Capital	Dated: 07/11/2025	Arukah Capital

32.	Protocol for Biochar Sampling and Testing Frequency	-	Arukah Capital
33.	Soil Temperature Selection Methods <ul style="list-style-type: none"> Global maps of soil temperature (https://onlinelibrary.wiley.com/doi/10.1111/gcb.16060) Land-cover change alters stand structure, species diversity, leaf functional traits, and soil conditions in Cambodian tropical forests (https://bg.copernicus.org/articles/22/4649/2025/) 	-	Others
34.	Protocol applied to calculate the dry mass of biochar produced	Dated: 24/11/2025	Arukah Capital
35.	Biochar Test Results (for Oct, Nov and Dec) by Control Union Vietnam Co. Ltd.	-	Arukah Capital
36.	Certificate of Analysis of Biochar (by Control Union Vietnam Co. Ltd.)	Dated: 01/12/2025	Arukah Capital
37.	Records of Biomass used and Biochar produced	-	Arukah Capital
38.	Biomass invoices	-	Arukah Capital
39.	Biochar Offtake Delivery Notes	Dated: Oct 2025 to Dec 2025	Arukah Capital
40.	Electricity bills	Dated: Nov 2025 to Jan 2026	Arukah Capital
41.	Supply and Installation of Transformer at Soma Energy Co. Ltd. – Completion Report	Dated: 14/03/2025	Arukah Capital
42.	Supply and Installation of Transformer at Soma Energy Co. Ltd. – Handover Letter	Dated: 18/03/2025	Arukah Capital
43.	LPG Purchase invoices	Dated: 17/10/2025 to 15/12/2025	Arukah Capital
44.	Diesel Purchase Invoices	Dated: 15/08/2025 to 12/12/2025	Arukah Capital
45.	Manufacturer Specifications <ul style="list-style-type: none"> Pyrolysis Machine (by Quantum Engineering) LPG Gas Tank (by Bros Gas) 	-	Arukah Capital

46.	Certification Letter from Quantum Engineering	-	Quantum Engineering
47.	Calibration Certificates: <ul style="list-style-type: none"> • Weigh scale • Thermocouple 	Dated: 17/11/2025	Arukah Capital
48.	World Steel Association database for Engineering Steel	Dated: June 2023	World Steel Organization
49.	Transport Truck Specifications by Machmall (https://www.machmall.com/item-detail/xcmg-xga3310d2we-6311.html)	-	Others
50.	Biomass Weigh Slips by rice mills	-	Arukah Capital
51.	Google Maps Transportation screenshots for distances between production facility from biomass source facilities and biochar end use sites	-	Arukah Capital
52.	2006 IPCC Guidelines for National Greenhouse Gas Inventories	-	IPCC
53.	Cambodia Rice Federation (http://www.crf.org.kh/?page=api_location_detail&menu1=582&menu2=1590&id=1590&lg=en)	-	Others
54.	ISO Certifications of Rice mills (Sustainable Biomass Sourcing Practices)	-	Arukah Capital
55.	3-ton Single Cabin Truck Specifications by Japan Motors (https://www.japanmotors.com/foton/media/brochures/3TON%20SINGLE%20CABIN%20TRUCKS%20SPECS.pdf)	-	Japan Motors
56.	Fire Fighting equipment photographs	-	Arukah Capital
57.	Letters from Thai Calibration Services Co. Ltd., confirming the tolerances of measuring equipment throughout the monitoring period	-	Thai Calibration Services Co. Ltd.
58.	Biochar Lab Results Compliance to WBC Agro	Dated: 01/12/2025	Arukah Capital
59.	CDM Tool 27: Investment Analysis	Version 12.0	UNFCCC
60.	IEA Energy Statistics (International Energy Agency)	-	IEA
61.	Production facility and production process photographs	-	Arukah Capital
62.	Approval from MoE – Kingdom of Cambodia for Arukah Frontier	-	Arukah Capital

63.	European biochar - Carbon Standards (https://www.european-biochar.org/media/doc/2/wbc_1_0.pdf)	-	EBC
64.	Analytical Methods by European Biochar Certificate (https://www.european-biochar.org/en/ct/8-Analytical-Methods)	-	EBC
65.	National Accreditation Bureau (https://www.boa.gov.vn/en/control-union-vietnam-laboratory)	-	NAB
66.	List of Accredited tests by Control Union Vietnam Co. Ltd.	-	Arukah Capital
67.	Chain of Custody Records for biochar	-	Arukah Capital

APPENDIX 4: AUDIT FINDINGS

Table 1: CL from this verification

CL ID	01	Section no.	-	Date	: 05/01/2026
Description of CL					
<u>Observation:</u>					
<p>a) CO₂ Removal Supplier has provided the weight scale calibration certificate in the location 'S2511564S ARUKAH FRONTIER_Weigh Scale_2025-11'. The calibration date specified in the document is 17 Nov 2025, with validity extending until 17 Nov 2026. However, since the current monitoring period begins from 01 Oct 2025 to 12 Dec 2025, the calibration validity does not cover the entire monitoring period.</p> <p>b) CO₂ Removal Supplier has provided the temperature thermocouple calibration certificate in the document 'T2511082S ARUKAH FRONTIER_TemperatureProbe_2025-11'. The calibration date specified in the document is 17 Nov 2025, with validity extending until 17 Nov 2026. However, since the current monitoring period begins from 01 Oct 2025 to 12 Dec 2025, the calibration validity does not cover the entire monitoring period.</p> <p>c) According to Section 4.4 of the Project Description Document, equipment such as the gas consumption sensor and electricity meter are utilized in calculating emissions from electricity and fossil fuel consumption. However, the equipment specifications and calibration certificates for these instruments have not been provided.</p>					
<u>Action Required:</u>					
<p>a) CO₂ removal supplier shall provide calibration certificate for the weighscale that is valid for the entire monitoring period.</p> <p>b) CO₂ removal supplier shall provide calibration certificate for the thermocouple that is valid for the entire monitoring period.</p> <p>c) CO₂ removal supplier shall provide equipment specifications and calibration certificates for gas consumption sensor and the electricity meter installed at the production site.</p>					
Project participant response					Date: 12/01/2026
<p>Response to (a) Weighscale and (b) Temperature Thermocouple Calibration: With respect to the dates of calibration certificates (<i>Cert no. S2511564S for the weighscale and Cert nos. T2511082S, T2511083S, T2511084S for the temperature probes</i>), there was a delay in performing the calibration prior to the start of the monitoring period due to the time required to identify and secure suitable calibration vendors in a new market.</p> <p>In detail:</p> <ul style="list-style-type: none"> ● Instrument Reliability: Please see the attached letters from the calibration provider, <i>Thai Calibration Services Co., Ltd.</i>, confirming that for both the weighing instrument and the temperature probes, all measured values were found to be within specified tolerances at every calibration point during the process. ● Accuracy Confirmation: The instruments indicated accurate readings throughout the entire test range, and the certificates were remarked as "Without adjustment", confirming accurate measurement of weight and temperature with no adjustment necessary. ● Future Action: We will ensure that calibration validity aligns with the monitoring period for all future reporting cycles. <p>Response to (c) Gas Consumption Sensor and Electricity Meter: No additional physical meters or sensors were installed or used by Arukah to measure LPG and electricity consumption, as there are actual consumption figures that are already 3rd party validated with 3rd party invoices, photo evidence of deliveries, and electricity bills.</p>					

- **Data Sources:** For LPG gas and electricity, we utilised the actual consumption figures derived directly from LPG purchase records supported by invoices, and electricity bills.
- **Document Revision:** Section 4.4 PDD has been updated to reflect that invoices and purchase receipts are the primary data sources, and therefore, equipment specifications and calibration certificates for gas and electricity consumption are not applicable.

Documentation provided by project participant

- CL ID 01 (a) CTS letter - weight.pdf
- CL ID 01 (b) CTS letter - temperature.doc.pdf
- [Arukah Puro Project Description Foundation 1 \(4 Feb 2026\).docx](#)

DOE assessment

Date: 28/01/2026

- CO₂ Removal Supplier has provided document for weigh scale from the calibration provider, Thai Calibration Services Co. Ltd which states that the calibration equipment indicate accurate readings throughout the entire test range. Hence, this comment is CLOSED.
- CO₂ Removal Supplier has provided document for thermocouple from the calibration provider, Thai Calibration Services Co. Ltd which states that the calibration equipment indicate accurate readings throughout the entire test range. Hence, this comment is CLOSED.
- CO₂ Removal Supplier has stated that there are no gas consumption sensors installed on the production site, which is confirmed by the assessment team during the onsite audit. Although, there is an electricity meter installed at the site as observed by the assessment team during the onsite audit. CO₂ removal supplier shall provide the installation and calibration details of this meter and provide the electricity bills covering the entire monitoring period. Hence, this comment is OPEN.

Thus, CL#01 is OPEN

Project participant response

Date: 30/01/2026

For (c), we have included the electricity bills for the monitoring period - November bill for October usage, December bill for November usage, and January bill for December usage (noting that not the full month was counted in December as the monitoring period ended on 12 Dec).

Installation and testing completion report is provided below.

Documentation provided by project participant

Transformer_160kVA_Completion_Report_Supply_&_Installation.pdf

DOE assessment

Date: 08/02/2026

CO₂ Removal Supplier has submitted the electricity invoices for the monitoring period, along with the installation report and the handover letter for the transformer and electrical system that were installed. The electricity system and transformer were installed on 14th March 2025 and remain under warranty until 13th March 2026. This warranty period fully covers the monitoring period; therefore, calibration is not required until 13 March 2026.

Hence, CL01 is CLOSED.

CL ID

02

Section no.

-

Date: 05/01/2026

Description of CL

Observation:

- CO₂ Removal Supplier has not provided the contract/agreement between Arukah Capital Pte Ltd and Soma Farm (Cambodia) Co. Ltd and has not mentioned the details of carbon credit ownership in the Project description document.

<p>b) CO₂ removal supplier has stated the method to calculate the dry mass of biochar produced in 7e_Protocol applied to calculate the dry mass of biochar produced (24 Nov 2025)'. This document also states the potential sources of error such as:</p> <ol style="list-style-type: none"> 1. Incomplete drying of samples 2. Moisture loss / reabsorption during cooling 3. Balance calibration drift 4. Non-representative sampling 5. Operator error in weighing or recording data. <p>Although, the document does not provide information on measures to avoid or address these errors.</p> <p><u>Action Required:</u></p> <p>a) CO₂ removal supplier shall provide the contract/agreement between Arukah Capital Pte Ltd and Soma Farm (Cambodia) Co. Ltd and mention the relevant details in the Project Description Document.</p> <p>b) CO₂ removal supplier shall provide information on the measures implemented to avoid the above-mentioned errors.</p>	
Project participant response	Date: 09/01/2026
<p>a) Please see relevant clause 7.1 extracted from Partnership Agreement between Soma Farm (Party A) and Arukah Capital (Party B) - signed 23 February 2025. A redacted agreement can be made available to Earthood.</p> <p>b) Moisture content / dry mass calculation is conducted by an ISO-certified third-party lab, and we have clarified with the lab on the implementation measures and steps taken to address and minimize potential sources of error. Arukah has updated the Dry Mass Calculation Protocol document.</p>	
Documentation provided by project participant	
CL ID 02 (b) Protocol applied to calculate the dry mass of biochar produced (January 2026)	
DOE assessment	Date: 28/01/2026
<p>a) CO₂ Removal Supplier has stated the clause 7.1 from Partnership Agreement</p> <p>Although, CO₂ removal supplier shall provide this Partnership agreement between Arukah Capital and Soma Farm. Hence, this comment is OPEN.</p> <p>b) CO₂ removal supplier has provided information to avoid the errors of incomplete drying of samples, moisture loss / reabsorption during cooling, balance calibration drift, non-representative sampling, operator error in weighing or recording data. Further, CO₂ removal supplier has provided detailed procedure to calculate the dry mass content biochar. Hence, this comment is CLOSED.</p> <p>Thus, CL#02 is OPEN.</p>	
Project participant response	Date: 30/01/2026
Please see the relevant clause in the Partnership agreement between Soma Farm and Arukah Capital (Signed in February 2025).	
Documentation provided by project participant	
Signed_Partnership Agreement (23 Feb 2025) _Redacted.pdf	
DOE assessment	Date: 08/02/2026
CO ₂ Removal Supplier has provided the Partnership agreement between Arukah Capital and Soma Farm.	
Hence, CL02 is CLOSED.	

CL ID	03	Section no.	-	Date: 05/01/2026																																	
Description of CL																																					
<p><u>Observation:</u></p> <ul style="list-style-type: none"> In section 4.1 of the Project Description, it is stated that the 'Feedstock Sources: Rice mills within 100km radius of production facility'. Although, according to the locations of the biomass sources provided by the CO₂ Removal Supplier, there is one facility located around 350km from the production facility (Arukah Frontier (Bati) - Google Maps). <p><u>Action Required:</u></p> <ul style="list-style-type: none"> CO₂ removal supplier must specify the precise distance between the production facility and both the biomass sourcing locations and the biochar end-use application sites. In addition, the supplier shall report the total number of trips conducted between these locations and the facility during the current monitoring period, and ensure that the project description as well as the CORC calculations are updated accordingly 																																					
Project participant response				Date: 09/01/2026																																	
<p>We document the source of every single rice mill in our Production Records and have updated the Project Description (Section 4.1) to explain this exception to our supply chain distances.</p> <p><u>Location of the biomass source</u></p> <table border="1"> <thead> <tr> <th>S/N</th> <th>Distance of Biomass Source</th> <th>Number of Trips</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>341 km</td> <td>22</td> </tr> <tr> <td>2</td> <td>62.2 km</td> <td>11</td> </tr> <tr> <td>3</td> <td>19 km</td> <td>6</td> </tr> <tr> <td>4</td> <td>58 km</td> <td>2</td> </tr> <tr> <td>5</td> <td>70.7 km</td> <td>1</td> </tr> <tr> <td>6</td> <td>124 km</td> <td>1</td> </tr> <tr> <td>7</td> <td>124 km</td> <td>1</td> </tr> </tbody> </table> <p><u>Location of the biochar end-use site</u></p> <table border="1"> <thead> <tr> <th>S/N</th> <th>Distance of Biochar End use</th> <th>Number of Trips</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>3.1 km</td> <td>97</td> </tr> <tr> <td>2</td> <td>59 km</td> <td>23</td> </tr> </tbody> </table>					S/N	Distance of Biomass Source	Number of Trips	1	341 km	22	2	62.2 km	11	3	19 km	6	4	58 km	2	5	70.7 km	1	6	124 km	1	7	124 km	1	S/N	Distance of Biochar End use	Number of Trips	1	3.1 km	97	2	59 km	23
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2	59 km	23																																			
Documentation provided by project participant																																					
CL ID 03_Records of Biomass used, and Biochar produced (Rolling Oct - Dec 2025).xlsx																																					
DOE assessment				Date: 28/01/2026																																	
<p>CO₂ removal supplier has provided the exact distances between the biomass source and the biochar end-use site. However, the supplier shall also specify in the Project Description document the procedure to determine the number of trips, along with the necessary supporting evidence.</p> <p>Furthermore, please clarify how the number of trips has been factored into the calculation of transportation-related emissions within the CORC calculations.</p> <p>Hence, CL#03 is OPEN</p>																																					
Project participant response				Date: 30/01/2026																																	

We document every single batch of biomass in our records for use in LCA calculations, and also for internal expense reconciliation.

Ton-km for each trip is calculated based on distance between each biomass source and the biochar facility, and the weight biomass transported each delivery, and then summed across all deliveries, following the formula:

$$\text{Ton-km} = \sum (W_i \times D_i)$$

where W_i = tons from source i , and D_i = distance of biomass source i .

The calculated ton-km value (highlighted in orange - **Cell O2 for October, Cell T6 for November and Cell Y21 for December**) is documented in the “Biomass Purchased” tab of the Records included below. See Columns M to Z for more details.

This ton-km value is subsequently used as an input for transport emission calculations in the LCI tab of the LCA worksheet.

Documentation provided by project participant

Strictly Confidential_CL ID 03_Records of Biomass used and Biochar produced (Rolling Oct - Dec 2025).xlsx
 CL ID 03_Biomass and Biochar Transportation Emissions

DOE assessment

Date: 09/02/2026

CO₂ removal supplier has updated the transport distances of the biomass source to the biochar facility in the LCA model. This distance is determined by calculating the product of the biomass quantity transported and the source-to-facility distance, expressed in ton-kilometers, and then multiplying this value by the total biomass transported in its wet form.

Hence, **CL#03 is CLOSED**

CL ID	04	Section no.	-	Date: 05/01/2026
Description of CL				
<u>Observation:</u>				
<ul style="list-style-type: none"> In '5e_Biochar production equipment questionnaire (24 November 2025)' document, cell D15 mentions the date of equipment in operation as '<i>Machine started operating in 3Q2025</i>'. From this justification it is unclear to deduce the exact start date of operations. 				
<u>Action Required:</u>				
<ul style="list-style-type: none"> CO₂ removal supplier shall clarify the exact date of equipment installation and commencement of operations. Further, supplier shall mention the same in the Project Description Document. 				
Project participant response				Date: 09/01/2026
<p>Our biochar factory was opened in March 2025. The pyrolysis machine completed installation and calibration by September 2025. With systems fully aligned, we commenced commercial biochar production on 1 October 2025.</p> <p>We have clarified this in Section 3.1 of the PDD, and in Equipment Questionnaire Excel.</p>				
Documentation provided by project participant				
CL ID 04_Biochar production equipment questionnaire (January 2026).xlsx				
DOE assessment				Date: 28/01/2026

CO₂ removal supplier has clarified the exact date of equipment installation and commencement of operations.

Thus, **CL#04 is CLOSED**

CL ID	05	Section no.	-	Date : 05/01/2026
Description of CL				
<ol style="list-style-type: none"> CO₂ removal supplier shall provide clarification on how the quantity of biochar produced during each month of the monitoring period is determined and provide evidence to verify the quantity if biochar production for each month to support the biochar production records reported in the Excel file 11a and 12d_Records of Biomass used and Biochar Produced (October - December). 11a and 12d_Records of biomass used and biochar produced indicate that all the biochar produced during the month of October was not used. 38.35 dry metric tonnes of biochar was produced but the amount of biochar used is 15.87 dry metric tonnes. CO₂ removal shall provide clarification on this observation and the fate of the unused biochar. 				
Project participant response				Date: 09/01/2026
<ol style="list-style-type: none"> Biochar produced in the pyrolysis machine is packed into Jumbo Bags. Each bag is weighed using a weighing scale (calibration cert referenced above). The Jumbo Bag is then labelled following this standardised format: Date (YYYYMMDD)-(Bag Number)(Feedstock Code), - e.g. 20251122-73RH, The label also includes the wet weight, which is simultaneously recorded in the operational log. The dry weight is then calculated using the monthly lab test results and recorded. All biochar produced was collected by our joint trial partners for mixing into fertiliser. The submitted delivery notes cover the full batch in October (see the Delivery Notes - please note that during certain deliveries, some of the newer batches were collected ahead of earlier ones). 				
Documentation provided by project participant				
CL ID 05_Biochar Offtake DN-2025 Soma Farm				
DOE assessment				Date: 28/01/2026
<ol style="list-style-type: none"> CO₂ removal supplier has provided information on the monitoring and measurement of biochar produced. Hence, this comment is CLOSED. CO₂ removal supplier has provided the delivery notes for the entire monitoring period, hence this comment is CLOSED. 				
Thus, CL#05 is CLOSED.				

CL ID	06	Section no.	-	Date : 05/01/2026
Description of CL				
CO ₂ removal supplier shall provide the delivery notes of biochar for 1-12 December				
Project participant response				Date: 09/01/2026
Please see the delivery notes to our second offtaker, for the remaining biochar - amounting to a total of 130 dry tonnes of biochar collected.				
Documentation provided by project participant				
CL ID 06_Biochar Offtake DN-2025-00013A (signed).pdf				
DOE assessment				Date: 28/01/2026

CO₂ removal supplier has provided the delivery notes of biochar up to 12 December.

Thus, **CL#06 is CLOSED.**

CL ID	07	Section no.	-	Date: 28/01/2026
Description of CL				
<p>In the Facility Audit folder, under 07. MRV Procedures, the file 7d_Soil Temperature Selection Methods (Arukah) describes the method used for determining soil temperature. The soil temperature has been taken as 25 °C and is reflected in Column Q of the Puro_CORC Report Summary – Biochar – Supplier Template v2025 – Project Foundation v1 (12 December 2025).</p> <p>Please clarify the process by which the soil temperature value of 25 °C has been determined.</p>				
Project participant response				Date: 30/01/2026
<p>The soil temperature value of 25°C was derived from the global soil temperature dataset referenced in document 7d (doi link). While the sensor network in that study was primarily distributed across India and China, the authors applied spatial extrapolation techniques to estimate soil temperatures for tropical forest biomes, including Cambodia. The 25 °C value represents the modeled mean annual soil temperature for tropical forests in Cambodia's climatic zone.</p> <p>Independent Validation: To validate this selection, we cross-referenced recent field measurements from Sovann et al. (2025) "Land-cover change alters stand structure, species diversity, leaf functional traits, and soil conditions in Cambodian tropical forests" (<i>Biogeosciences</i>, 22, 4649–4677).</p> <p>This study conducted direct soil temperature measurements at 20 cm depth in Phnom Kulen National Park, Cambodia, between April 2022 and April 2023. The results (page 4655, final paragraph of Results section) show that:</p> <ul style="list-style-type: none"> • Annual daily mean soil temperature (Ts) across different land-cover classes ranged from 24.2–25.8 °C (measured at 20 cm depth) • Evergreen forests specifically showed Ts = 24.3 °C (±1.2 °C) • These measurements align closely with our selected value of 25 °C <p>The convergence between the spatially-modeled estimate (25 °C) and the empirical field measurements (24.2–25.8 °C range) from Sovann et al. (2025) validates that 25 °C is an appropriate and conservative estimate for mean annual topsoil temperature in Cambodia's tropical forest biome.</p>				
Documentation provided by project participant				
CL ID 07_Evidence for Soil Temperature				
DOE assessment				Date: 09/02/2026
<p>CO₂ Removal Supplier has mentioned the details on how the soil temperature of 25°C was determined. This soil temperature was determined from the Global maps of soil temperature (https://onlinelibrary.wiley.com/doi/10.1111/gcb.16060) and was further verified through the study by Sovann et al. (2025).</p> <p>Hence, CL#07 is CLOSED.</p>				

CL ID	08	Section no.	-	Date: 28/01/2026
Description of CL				
<p>In 'Puro_CORC Report Summary - Biochar - Supplier Template v2025 - Project Foundation v1 (12 December 2025)' sheet, 'Biochar Batch Records' tab, Column O, it is stated that the biochar meets the environmental quality requirements for its intended use, with reference to CUVBM2511074-1-COA – V3. However, this document only presents the results of various parameters and the content of the biochar, without explicitly confirming compliance with environmental quality standards.</p>				

Please clarify the basis on which the biochar quality is considered to meet the required environmental quality, including the criteria applied and supporting justification.

Project participant response

Date: 30/01/2026

Cambodia currently lacks a standard for biochar environmental quality. Our project therefore conducts testing for PAHs and heavy metal content against the WBC-Agro thresholds specified in Puro's Biochar Methodology 2022 (Section 1.1.7).

Documentation provided by project participant

CL ID 08 Biochar Lab Results Compliance to WBC Agro

DOE assessment

Date: 09/02/2026

CO₂ Removal Supplier has submitted the WBC certificate confirming that the biochar meets the prescribed limits for PAH and heavy metal content. Accordingly, the biochar is verified to be of the required environmental quality. Further, Cambodia does not have a standard to define the biochar environmental quality at present.

Hence, **CL#08 is CLOSED.**

CL ID 09 **Section no.** - **Date:** 28/01/2026

Description of CL

In the LCI tab of the Puro_LCA Model – Biochar – Foundation sheets, the emission factor for diesel has been considered as 2.68 kgCO₂/litre. This value is referenced from the document 2025-Default-Emission-Factors-03-2025.pdf (available at <https://theclimateregistry.org/wp-content/uploads/2025/03/2025-Default-Emission-Factors-03-2025.pdf>) and is taken from Table 2.2 of the same.

Table 2.2 Canadian Default Factors for Calculating CO₂ Emissions from Combustion of Transport Fuels

Fuel Type	Carbon Content (kg C / GJ)	Heat Content (GJ / kiloliter)	Fraction Oxidized	CO ₂ Emission Factors (g CO ₂ / L)
Motor Gasoline	n/a	33.45	1	2,307.30
Diesel	n/a	38.35	1	2,680.50
Light Fuel Oil	n/a	38.80	1	2,753.00
Heavy Fuel Oil	n/a	42.50	1	3,156.00
Aviation Gasoline	n/a	33.52	1	2,325.40
Aviation Turbo Fuel	n/a	37.40	1	2,559.70
Propane	n/a	25.31	1	1,515.00
Ethanol	n/a	23.42	1	1,508.04
Biodiesel	n/a	35.18	1	2,472.20
Kerosene	n/a	37.68	1	2,559.70
		GJ / megalitre		g CO ₂ / L

Please clarify the rationale for considering this Canadian default value, including the justification for its applicability to the project context and whether alternative region-specific or internationally recognized emission factors were evaluated.

Project participant response

Date: 30/01/2026

The emission factor for diesel combustion, commonly cited as **2.68 kg CO₂ per litre**, is consistent with IPCC EFDB and 2006 Guidelines, converted using standard fuel properties, rather than being specific to Canada's National Inventory Report.

The IPCC does not directly list "kg CO₂ per litre" but instead provides **emission factors in kg CO₂ per terajoule (TJ)** of energy.

For diesel: 74,100 kg CO₂/TJ

<p>Converting with diesel's net calorific value (~43 MJ/kg) and density (~0.84 kg/L) yields ≈2.68 kg CO₂/L</p> <p>This figure is widely accepted internationally as a standard factor, since it reflects the inherent carbon content of diesel fuel rather than country-specific conditions.</p> <p>At present, Cambodia does not publish its own diesel emission factor, and national inventories typically apply the IPCC defaults.</p>
<p>Documentation provided by project participant</p> <p>Microsoft Word - V2_Ch3_Mobile_Combustion_Final.doc</p>
<p>DOE assessment Date: 09/02/2026</p> <p>The emission factor for diesel combustion is taken directly from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Vol. 2, Ch. 3), which specify 74,100 kg CO₂/TJ; when converted using the net calorific value (~43 MJ/kg) and density (~0.84 kg/L, giving ~35.8 MJ/L), this results in 2.68 kg CO₂/L of diesel. This value is consistent with the value applied in the LCA model for CORC calculations.</p> <p>Hence, CL#09 is CLOSED.</p>

CL ID	10	Section no.	-	Date : 28/01/2026
Description of CL				
<p>According to the Puro Biomass Sourcing Criteria document, rice husk falls under Category L – Non-field Agricultural Residues. Page 12 of this document specifies that sustainability criteria for rice husk biomass must evidence:</p> <ul style="list-style-type: none"> • Legal operations: operators and operations are legal in the jurisdiction of sourcing. • Working conditions: operators have measures in place to ensure safe working conditions during processing of the residues. <p>Please justify how the rice husk biomass used in the project complies with this category and provide the necessary supporting documentation for both legal operations and working condition</p>				
Project participant response				Date: 30/01/2026
<p>Our rice husk is sourced from rice mills that are registered members of the Cambodian Rice Federation , ensuring sectoral oversight and compliance with national standards (see list in the provided documents).</p> <p>The majority of this biomass is supplied by mills that are active exporters of Cambodian rice and maintain ISO certification.</p> <p>For verification purposes, Earthood has been provided with the detailed list of rice husk sources in the Records of Biomass Purchased, together with extracted information from the rice respective mills.</p>				
Documentation provided by project participant				
<p>Cambodia Rice Federation CL ID 10_Sustainable Biomass Sourcing Practices</p>				
DOE assessment				Date: 09/02/2026
<p>CO₂ Removal Supplier has provided the documentation, including the list of rice husk sources within the Records of Biomass Purchased and the details extracted from the respective mills. Majority of these rice mills also maintain ISO certification and are active exporters of the Cambodian rice.</p> <p>Hence, CL#10 is CLOSED.</p>				

CL ID	11	Section no.	-	Date : 28/01/2026
Description of CL				
<p>On-site observation:</p>				

As observed on site, from the operational data, the quantity of electricity used in the month of October was “1528 kWh”. This is inconsistent from the LCA Model for October, cell E104 which states the electricity usage as 5,194. kWh. CO2 removal supplier shall rectify the observed inconsistency and provide utility invoices in support.

Project participant response

Date: 30/01/2026

The electricity consumption in the October LCA has been aligned to the utility invoice. We have recorded the respective changes to the LCA in the documents below.

Documentation provided by project participant

2025-11-11_Electricity_Invoice_USD.jpg

Change Log of LCA and CORC Summary - 26 January 2026

Puro_LCA Model - Biochar - Foundation (Oct 25 - Real Data - 2 Feb 2026).xlsm

DOE assessment

Date: 08/02/2026

CO₂ removal supplier has updated the electricity consumption values in the LCA model to reflect actual usage, based on electricity invoices from the monitoring period.

Hence, **CL#11 is CLOSED**

CL ID	12	Section no.	-	Date :	16/02/2026
Description of CL					
<p>Additionality –</p> <p><<Section redacted from public documentation due to commercially sensitive information.>></p> <p>In the ‘2b. Financial Model_Foundation Arukah 08.12.2025 (updated)’ sheet,</p> <ol style="list-style-type: none"> 1. The selling price of biochar for year 1 is<<redacted for commercial sensitivity>> USD/t while for year 2 is <<redacted for commercial sensitivity>>USD/t. Please clarify a <<redacted for commercial sensitivity>> difference in the selling price within one year. 2. What is the significance of NDC reserve values under carbon credit revenues. Is it required to be excluded from the total carbon revenues to get net carbon revenues out of project activity. Please clarify. 3. In Sensitivity analysis, the price of biochar increases as follows <<redacted for commercial sensitivity>>. As this price increase is not consistent throughout the years, please clarify the reason for the same. 					
Project participant response					Date : 16/02/2026
<ul style="list-style-type: none"> ● Response to Point (1) and (3): The lower bound <<redacted for commercial sensitivity>>was based on a trial price that was in negotiation with live commercial partners, for the first year as part of market development for the biochar offtake. The other prices for the sensitivity analysis were also included based on ongoing conversations with other offtakers, and reflect a range of willingness to pay, rather than reflecting a projection of the biochar price trajectory over time. To clarify, the Sensitivity table is meant to assess a range of project scenarios, rather than to project future prices. Our default projection for biochar is <<redacted for commercial sensitivity>> the amount based on our specific project design that is required for the project to be sustainable, and the agreed price for cost booking or our biochar mix fertiliser partnership. ● Response to Point (2): As the sole carbon title holder and project developer, Arukah sells the generated carbon credits into global voluntary markets. The NDC reserve is an internal term we used to describe the buffer we are setting aside to account for uncertainties. These uncertainties include future changes in global carbon market rules both in the global and host country context - e.g., convergence 					

between voluntary and compliance market and/or requirements for a portion of the credits to be retained for domestic use. While we do not anticipate this to occur at this stage, we have retained a buffer to be conservative in our ability to meet committed deliveries to buyers.

- The <<redacted for commercial sensitivity>> buffer attributed here is excluded from the net carbon revenue - see Row 11 in the Financial model submitted.

Documentation provided by project participant

Not for public circulation: 2b. Financial Model_Foundation Arukah 08.12.2025 (updated).xlsx

DOE assessment

Date: 19/02/2025

The raised clarifications have been addressed.
CL # 12 is closed.

CL ID	13	Section no.	-	Date :	16/02/2026
Description of CL					
<p>The project description states that – “the pyrolysis equipment comprises a continuous rotary kiln carbonizer, syngas recirculation, emissions control, and water-jacketed screw cooling and water quenching for safe biochar discharge. CO2 removal supplier is requested to mention the source of water used in the facility, process of water input measurement and provide supportive for the same.</p>					
Project participant response					Date: 16/02/2026
<p>The facility sources its cooling water from a man-made pond located within Soma Farm, approximately 120 meters from the pyrolysis unit. Water is pumped from the pond into a holding tank adjacent to the machine, where it is directed through the water-jacketed screw conveyor to cool the biochar exiting the kiln. During this process, the water temperature rises to approximately 35–38 °C before being discharged into a drain that returns it to the same pond.</p> <p>Because the system is designed primarily as a closed-loop recirculation, there is minimal external water input into the process. As such, no dedicated water input measurement device is installed.</p>					



Documentation provided by project participant	
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DOE assessment	Date: 19/02/2026
Requested clarification is provided. Therefore, the finding is closed.	

Table 3. CAR from this verification

CAR ID	01	Section no.	-	Date : 05/01/2026
Description of CAR				
<p>In Section 6 of the Project Description, “Other documents available in the Puro Registry”, CO2 removal supplier shall mention all the documents that will be made publicly available in the Puro Registry. These include the following:</p> <ul style="list-style-type: none"> ● Project description ● Environmental and Social Safeguards Questionnaire ● Environmental Evaluation report ● Stakeholder Engagement report ● Baseline and Additionality questionnaire ● Sustainable Development Goals Reporting (if any SDG attributes are reported for certification) <p>CO2 removal supplier shall mention the exact file names (not the title of document) in this section.</p>				
Project participant response				Date: 09/01/2026

<p>We have updated Section 6 of the Project Description document with the exact file names of the following</p> <ul style="list-style-type: none"> • Project description • Environmental and Social Safeguards Questionnaire • Environmental Evaluation report • Stakeholder Engagement report • Baseline and Additionality questionnaire 	
<p>Documentation provided by project participant</p>	
<p>Arukah_Puro Project Description_Foundation 1 (January 2026).docx</p>	
<p>DOE assessment</p>	<p>Date: 28/01/2026</p>
<p>CO₂ removal supplier has included all the above stated documents in the Project Description document, except 'Baseline and Additionality Assessment'. CO₂ removal supplier shall include the document of 'Baseline and Additionality Assessment' in the Project Description.</p> <p>Thus, CAR#01 is OPEN.</p>	
<p>Project participant response</p>	<p>Date: 30/01/2026</p>
<p>We have clarified that the Baseline and Additionality Assessment has already been included - the document is "2a_Puro Additionality v1.9 (8 Dec 2025)_signed".</p>	
<p>Documentation provided by project participant</p>	
<p>Arukah_Puro Project Description_Foundation 1 (4 Feb 2026).docx</p>	
<p>DOE assessment</p>	<p>Date: 08/02/2026</p>
<p>CO₂ Removal Supplier has included all the relevant documents in the Project Description Document.</p> <p>Hence, CAR#01 is CLOSED.</p>	

<p>CAR ID</p>	<p>02</p>	<p>Section no.</p>	<p>-</p>	<p>Date: 05/01/2026</p>
<p>Description of CAR</p>				
<p>CO₂ removal supplier shall provide the laboratory analysis results for the month of December and include the associated values in section "Biochar properties for permanence", CORC summary report, biochar production records 11a and 12d Records of Biomass and Biochar produced (Oct – Dec).</p>				
<p>Project participant response</p>				<p>Date: 09/01/2026</p>
<p>Our Testing Protocol for Project Foundation requires our biochar produced to be tested monthly, with a regional lab (Control Union in Vietnam). In accordance with our monitoring period, we will have included test results for October, November and December submitted as part of the audit package.</p> <p>The relevant parameters from the biochar lab tests - e.g. moisture content, H:C ratio, in the Biochar Produced Records and the relevant sections in the CORC summary report.</p>				
<p>Documentation provided by project participant</p>				
<p>CAR ID 02 (a) Biochar Test Results (Oct 2025).pdf CAR ID 02 (b) Biochar Test Results (Nov 2025).pdf CAR ID 02 (c) Biochar Test Results (Dec 2025).pdf</p> <p>Requesting Strictly Confidential handling of this attachment, which has commercially sensitive data: CL ID 03_Records of Biomass used and Biochar produced (Rolling Oct - Dec 2025).xlsx</p>				
<p>DOE assessment</p>				<p>Date: 28/01/2026</p>

CO₂ removal supplier has provided the laboratory results for the month of December and has associated the values in CORC calculations.

Thus, **CAR#02 is CLOSED.**

CAR ID	03	Section no.	-	Date: 28/01/2026
Description of CAR				
<p>The emission factor for steel has been considered as 1.89 tCO₂e/tonne of steel in the 'Puro LCA model' sheets, with the source cited as Climate Change and the Production of Iron and Steel – 2025 – worldsteel.org (https://worldsteel.org/climate-action/climate-change-and-the-production-of-iron-and-steel/#ref8). However, the value mentioned in this source is 2.18 tCO₂e/tonne of steel.</p> <p>Please clarify the reason for considering 1.89 tCO₂e/tonne instead of the value stated in the referenced source and provide justification or supporting documentation for this deviation. Also, if any further changes are made, please update the CORC calculations in the CORC summary sheet.</p>				
Project participant response				Date: 30/01/2026
<p>Emission factors vary across different steel products and production routes. The global average of 2.18 tCO₂e per tonne of crude steel (World Steel Association, IEA) represents a blended figure across product categories, but certain products, such as specialty alloys, are outliers with significantly higher emission intensities.</p> <p>In the LCA worksheet, we have updated the cited sources to reflect product-specific emission factors relevant to the steel components of the pyrolysis machine, with a focus on data from the Asian region.</p> <p>Correspondingly, the CORC calculations in the CORC summary sheet have been revised to incorporate these updated values.</p>				
Documentation provided by project participant				
<p>WorldSteel.org_Emissions_Engineering-steel-Asia-Construction.pdf WorldSteel.org_Emissions_Rebar-Asia-Construction.pdf</p>				
DOE assessment				Date: 08/02/2026
<p>CO₂ Removal Supplier has applied an emission factor value sourced from the World Steel Association (Engineering Steel Data, June 2023), which specifies the steel emission factor as 1.68 tCO₂e. This value was consistently used within the LCA model across the entire monitoring period.</p> <p>Hence, CAR#03 is CLOSED.</p>				

APPENDIX 5: AUDIT TEAM EXPERIENCE
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Competence Statement			
Name	Mehr Munjal		
Education	B.Sc. (Hons) – Bio-chemistry M.Sc. – Biotechnology		
Experience	2 + Years		
Field	Biochemistry		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Local expert	YES		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 1.1, 1.2, 13.1)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	06/01/2025
Approved by	Deepika Mahala (Technical Manager)	Date	06/01/2025

Competence Statement			
Name	Shubham Patil		
Education	BE in Mechanical Engineering MS by Research in Sustainable Energy Engineering		
Experience	6 + Months		
Field	Climate Change		
Approved Roles			
Team Leader	NO		
Validator	YES		
Verifier	YES		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Reviewed by	Shifali Guleria (Quality Manager)	Date	15/12/2025
Approved by	Deepika Mahala (Technical Manager)	Date	15/12/2025

Competence Statement	
Name	Deepika Mahala
Country	India

Education	M. Sc. (Environment Management), GGSIP University B.Sc. Hons. (Chemistry), Sri Venkateshwar College, DU		
Experience	10 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Local expert	YES (India, Bangladesh)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (X.X)	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1, TA 13.2 & TA 4.1)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	02/10/2025
Approved by	Kaviraj Singh (Executive Director & CEO)	Date	02/10/2025