Final Audit Report

Audited Body	
Puro.earth Project Proponent	Aperam Bioenergia Ltda
Name of Contact for Puro.earth Project Proponent	Benone Braga
Production Facility Operator	Aperam Bioenergia Ltda
Name of Contact for Production Facility Operator	Benone Braga
Production Facility name	Aperam Bioenergia
Production Facility ID	175613
Production Facility Location	Capelinha, Brazil

Audit Description	
Type of Audit	Output Verification Audit
Number of CORCs under Audit	39,852.91
Tonnes of dry biochar in stock (start)	3,033.73
Tonnes of dry biochar produced under Audit	28,911.46
Tonnes of dry biochar used under Audit	23,828.45
Tonnes of dry biochar in stock (end)	8,116.74
CORC conversion factor under Audit	1.672492756 tCO_2e per tonne dry biochar
Reporting Period Covered by Audit	01 March 2024 to 31 March 2025
Objective of Audit Engagement	Provide assurance opinion against requirements of Puro.earth Rules v3.1
Date of Auditor Engagement	12 September 2025
Date of Audit Report Submission	1 December 2025

Audit Outcomes	
Number of eligible CORCs	39,564.50
Tonnes of dry biochar in stock (start)	0.00
Tonnes of dry biochar produced under Audit	30,026.19
Tonnes of eligible dry biochar used	26,678.36
Tonnes of dry biochar in stock (end)	3,347.83
CORC conversion factor	1.483018446 tCO_2e per tonne dry biochar
Calculation Method	Biochar Methodology Edition 2022 v3

Auditing Body	
Auditor	EnergyLink Services Pty Ltd
Lead Auditor	Rodrigo Pardo Patron
Additional Audit Personnel	Thais Monteiro Voll
Peer Reviewer	Katherine Simmons

This document details the nature and scope of the services provided by a member of EnergyLink Services in respect of the eligibility of the CO_2 Removal Supplier Production Facility under the requirements of Biochar Methodology v3.0 (Edition 2022) and the Puro Standard General Rules v3.1.

This document is issued to Puro.earth detailing audit procedures conducted and the auditor's opinion in relation to the eligibility of the Production Facility. It should not be used for any other purpose.

Because of the inherent limitations in any internal control structure, it is possible that fraud, error, or non-compliance with laws and rules may occur and not be detected. Further, the audit was not designed to detect all weakness or errors in internal controls so far as they relate to the requirements set out above as the audit has not been performed continuously throughout the period and the procedures performed on the relevant internal controls were on a test basis. Any projection of the evaluation of control procedures to future periods is subject to the risk that the procedures may become inadequate because of changes in conditions, or that the degree of compliance with them may deteriorate.

The audit opinion expressed in this report has been formed on the above basis.

Copies of relevant documentation are available on the Puro.earth website: puro.earth

COMMERCIAL AND CONFIDENTIAL

Version Control Record

Project Number – J0747				
Document File Name	Date Issued	Version	Lead Auditor	Peer Reviewer
20251201 Aperam Bioenergia Output Final Audit Report vF.0	01 December 2025	vF.0	Rodrigo Pardo Patron	Katherine Simmons

Contents

Abbreviation	Description
ASA	Aperam South America
BIO	Aperam Bioenergia
SGS	Société Générale de Surveillance
'H'	Hydrogen
'O'	Oxygen
CO_2	Carbon Dioxide
CORC	CO_2 Removal Certificate
C_{org}	Organic Carbon
GHG	Greenhouse Gas
LCA	Life Cycle Assessment
OC	Overcalculation
UC	Undercalculation
The Puro Rules	the Puro Standard General Rules v3.1
The Biochar Methodology	Edition 2022 v3

PART A: Auditor's Report

To: Puro.earth

Dear Sir / Madam,

EnergyLink Services Pty Ltd (EnergyLink) were engaged to perform a reasonable assurance audit of Aperam Bioenergia's CO_2 removal calculation for the reporting period covered by the audit, from 01 March 2024 to 31 March 2025, against the eligibility requirements of 'the Puro Standard General Rules v3.1' (hereafter referred to as "the Puro Rules").

Details of Audited Body

Puro.earth Project Proponent	Aperam Bioenergia Ltda
Production Facility Operator	Aperam Bioenergia Ltda
Production Facility name	Aperam Bioenergia
Production Facility ID	175613
Production Facility location	Rual Raul Coelho 725, Cidade Nova – Capelinha, Brazil

Responsibility of the Audited Body's Management

The management of the audited body (which is Aperam Bioenergia) is responsible for the application of the requirements of 'Biochar Methodology Edition 2022 v3' (hereafter referred to as "the Biochar Methodology") in quantifying CO_2 Removal Certificates (CORCs) from the production of biochar, which is reflected in the proof provided to EnergyLink.

The management of the audited body is responsible for preparation and presentation of the evidence in accordance with Section 5 the Biochar Methodology. This responsibility includes the design, implementation, and maintenance of internal controls relevant to the preparation and presentation of proofs that are free from material misstatement, whether due to fraud or error.

Our independence and quality control

EnergyLink have complied with the relevant ethical requirements relating to assurance engagements, which include independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence, due care, confidentiality, and professional behaviour. These include all the requirements defined in the *Fortum – Supplier Code of Conduct*[1]. Additionally, EnergyLink Services and the verification team declare no conflict of interest with the audited body for this engagement.

Furthermore, EnergyLink maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements, in accordance with *ISQC 1 Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information.*

[1] Fortum (2020), Fortum – Supplier Code of Conduct, available at: www.fortum.com/about-us/contact-us/suppliers/code-of-conduct

Our responsibility

EnergyLink's responsibility is to express an opinion on the audited body's quantification of CORCs and compliance with the *Puro Rules* based on the procedures we have performed and the evidence we have obtained.

We have conducted a reasonable assurance engagement in accordance with the *Puro Rules* and relevant international standards, as listed below:

- International Standards on Assurance Engagements ISAE 3000 Assurance Engagements other than Audits or Reviews of Historical Financial Information.
- ISQC 1 Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, and Other Assurance Engagement.

A reasonable assurance engagement in accordance with relevant international standards involves performing procedures to obtain evidence about the Production Facility process controls and quantification of CORCs in accordance with the Puro Rules. The nature, timing and extent of procedures selected depend on the assurance practitioner's judgement, including the assessment of the risks of material misstatement, whether due to fraud or error. In making those risk assessments, we considered internal controls relevant to the audited body's preparation of proofs. We believe that the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusion.

Summary of procedures undertaken

The procedures we conducted in our reasonable assurance engagement included:

- reviewing evidence provided by the audited body;
- assessing the audited body against eligibility criteria;
- conducting interviews and a (virtual) site visit to validate the evidence provided;
- analysing procedures that the audited body used to gather data;
- testing of calculations that the audited body performed; and
- identifying and testing assumptions supporting the calculations.

Use of our reasonable assurance engagement report

This audit report has been prepared for use by the audited body and Puro.earth for the sole purpose of reporting on the audited body's quantification of CORCs and compliance with the *Puro Rules*. Accordingly, EnergyLink Services expressly disclaim and do not accept any responsibility or liability to any party other than Puro.earth and the audited body for any consequences of reliance on this report for any purpose.

Inherent limitations

There are inherent limitations in performing assurance audits - for example, assurance engagements are based on selective testing of the information being examined - and because of this, it is possible that fraud, error, or non-compliance may occur and not be detected. An assurance engagement is not designed to detect all misstatements, as an assurance engagement is not performed continuously throughout the period that is the subject of the engagement, and the procedures performed are based on a test basis. The conclusion expressed in this report has been formed on the above basis.

Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating, and sampling or estimating such data.

Corrective Action Requests / Recommendations

During the audit process, the auditor issued two corrective action requests, which were addressed during the course of the audit. Further, the auditor issued two recommendations and two carry forward recommendations (i.e. recommendations made in the previous audit) to be implemented by the next audit.

Corrective Action Request 1: Biochar Stock Reporting

In the CORCs Summary, Aperam Bioenergia reported 3,033.73 tonnes of dry biochar as "stock at period start." However, in the previous output audit (2 July 2024), no claim for "stock of biochar not yet used" was made. Aperam Bioenergia clarified that, in prior audits, they reported and provided evidence only for the dry biochar applied to soil and not the total biochar produced. Subsequently, the auditor requested that Aperam Bioenergia review the reported tonnage of biochar in the CORCs Summary for the current reporting period, and Aperam Bioenergia reported zero tonnes for "stock at period start."

This adjustment impacted the quantities of "stock at period start" and "stock of biochar not yet used."

Corrective Action Request 2: LCA calculation

Aperam Bioenergia prepared two LCAs to account for the biochar produced on-site, which were:

1) BIO-BIO LCA: After production, the produced char was separated into coarse and fine fractions at the production facility (i.e. Aperam Bioenergia or BIO). The coarse char was subsequently sent to Aperam South America (ASA) for energy production in steel blast furnaces. The remaining fine char, along with biochar produced from forestry residues such as branches, leaves, and roots, was applied directly to the soil at BIO.
2) BIO-ASA-BIO LCA: Prior to usage in steel blast furnaces at ASA, the coarse char underwent an additional separation process into coarse and fine fractions, as only the coarse fraction was fed to the furnaces. The remaining fine char was returned to BIO for application to soil.

Both LCAs used the same feedstock and resulted in the same final application to soil in eucalyptus plantations at BIO. The only difference was that the BIO-ASA-BIO LCA included an additional transport step to send and return the remaining fine char from ASA to BIO, which required extra fuel consumption.

During the audit, the auditor observed that while the evidence provided and observations from the virtual site visit were consistent, some inconsistencies in the data reported in the LCA were noted, for example, $E_{production}$ reported zero emissions. Consequently, the auditor requested Aperam Bioenergia to review in detail their LCAs, resulting in the following changes to both LCAs:

a) Reallocation of electricity consumption of Aperam Bioenergia from $E_{biomass}$ to $E_{production}$;
b) Calculation and inclusion of flue gas emissions within the emissions boundary under $E_{production}$;
c) Recalculation of diesel consumption for trucks to be in litres under $E_{production}$, instead of using the distance (kilometres) under $E_{biomass}$;
d) Reallocation of all fuel usage for the transportation of biochar for soil application from total char produced to only consider the fraction applied to soil under E_{use};
e) Exclusion of the carbon mass balance calculations from $E_{production}$ as they relate to E_{stored}. Nevertheless, E_{stored} was calculated using the CORC Summary, not the LCA, hence its exclusion; and
f) Review of the total dry biochar produced, applied, and the "stock of biochar not yet used" to ensure consistency with the supporting evidence.

Additionally, for the BIO-ASA-BIO LCA, Aperam Bioenergia revised the allocation of transportation emissions between BIO and ASA, reallocating them from $E_{biomass}$ to $E_{production}$.
These adjustments impacted the emission factors in the CORCs calculations and consequently, the number of CORCs.

Recommendation 1: Biochar Stock Reporting

Finding

Because of the finding described in Corrective Action Request 1, the auditor has issued the following audit recommendation, to be assessed in the next audit.

Recommendation

The auditor recommends that Aperam Bioenergia implement a consistent reporting approach by including both the total biochar produced and the amount applied to soil in the CORCs Summary. This will ensure that future claims for "stock at period start" and "stock of biochar not yet used" are accurately documented and verifiable in subsequent audits.

Recommendation 2: LCA Data Accuracy

Finding

The auditor noted that Aperam Bioenergia used CY2023 data to calculate the LCA and determine the emission factors applied in the CORCs Summary for the reporting period from 01 March 2024 to 31 March 2025. Aperam Bioenergia explained that the LCA was conducted annually and certified by Société Générale de Surveillance (SGS) As the audit reporting period commenced in March 2024, the most recent complete dataset available was from CY2023, which was therefore used as the basis for the LCA.

Additionally, during the site visit and desktop review, the auditor verified the total production and application of eligible biochar for the reporting period under audit and confirmed that Aperam Bioenergia's production process remained consistent with CY2023, with no significant changes in operations or production volumes.

Lastly, Aperam Bioenergia calculated the total emissions for CY2023 by considering each emission source, including electricity consumption, fuel usage, transportation of biomass to the facilities. These emissions were divided by the total char produced and/or the biochar applied to soil, depending on the type of emission source, to determine each emission factor. The calculated factors were then applied to the biochar applied to soil. This approach ensured that emissions from biochar not yet applied would be accounted for in future audits when the biochar is eventually applied to soil.

Recommendation

The auditor recommends that Aperam Bioenergia enhance its procedures to ensure that the emissions associated with biochar not yet applied to soil during the current audit period are accounted for in future audits. Additionally, the auditor recommends that Aperam Bioenergia use actual data inputs from the reporting period in the LCA, when available, to ensure consistency and accuracy.

Carry Forward Recommendation 1: Record Keeping and Quality Assurance

Finding 1

Because of the findings described in Corrective Action Request 2, the auditor has carried forward the previous audit recommendation, to be assessed in the next audit. More information on the previous audit recommendation can be found in Appendix A.

Finding 2

The auditor noted a lack of traceability between the inputs used in the LCA and the supporting evidence provided. Upon request, Aperam Bioenergia submitted a spreadsheet containing a detailed facility-level breakdown of production data for the reporting period. This breakdown included:

- Tonnes of total char produced (i.e., char sent to ASA plus biochar applied at BIO);
- Gas burner efficiency (%);
- Tonnes of wet biochar received back from ASA and applied at BIO (BIO–ASA–BIO LCA);
- Tonnes of wet biochar applied at BIO and not transported to ASA (BIO–BIO LCA);
- Moisture content; and
- Tonnes of dry biochar applied to soil at BIO.

Recommendation

EnergyLink Services recommends that Aperam Bioenergia augment its record keeping and quality assurance procedures to ensure that data inputs to their LCA and in the calculation of CORCs are correct, accurate, well-documented and consistent across documents.

Carry Forward Recommendation 2: Ongoing testing for accurate classification Biochar / Char

Finding

The auditor issued this recommendation during the physical site visit during 01 August 2024 and was relevant to the continuous reactor operations. No production from the continuous reactor was part of this audit, as it remained in testing phase. As such, the auditor has issued Carry Forward Recommendation 2 for this item to be reassessed in the next audit cycle, if the continuous reactor is operational. More information on the previous audit recommendation can be found in Appendix A.

Recommendation

On site testing for C_{org} and Hydrogen will enable Aperam to better understand on site parameters to be able to control the process and ensure either biochar or char is produced at the continuous reactor. Aperam should be able to rely on these ongoing tests as long as the results are within a range obtained by third party analysis for their CORC creation.

Overall Conclusion

Positive Conclusion (Output Verification Audit)

Production Output Verification Audit

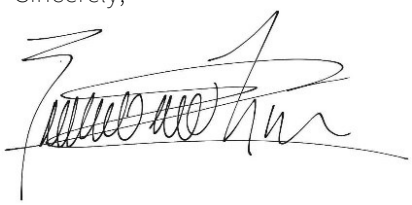
The lead auditor is able to express a reasonable assurance opinion that, in all material respects, the quantification of **39,564.50 CO_2 Removal Certificates (CORCs)** for the reporting period 01 March 2024 to 31 March 2025 by the audited body was correct. The auditor identified that the eligible CORC quantity has been calculated in accordance with the Puro Standard General Rules v3.1 and all eligibility requirements have been met.

Table 1: Audited CORCs summary

Biochar	CORCs Under Audit	Net Error (CORCs)	Eligible CORCs	Net Error Rate (%)
Total	39,852.91	288.41 OC	39,564.50	0.72%

*OC = Overcalculation / UC = Undercalculation

Sincerely,



Rodrigo PARDO PATRON | Director of Engineering
EnergyLink Services Pty Ltd
Lead Auditor
1 December 2025

Part B: Detailed Findings

Audit Findings and Conclusions

Table 2 to Table 5 summarises the findings from the Production Output Audit. As part of the audit procedures, the auditor performed interviews with site representatives and a virtual site visit to the Production Facility. Where possible, the findings from these procedures were used to validate that the eligibility criteria under the methodology had been met, that the proofs and evidence provided by the audited body were accurate, and that the metering used to quantify the Output was appropriate and correctly calibrated.

Eligibility Assessment

Table 2: Eligibility Assessment

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the biochar is used in applications other than energy.	Y	The coarse char and a portion of the fine char are sent to Aperam South America (ASA), while the remaining biochar fines, along with the biochar produced from forestry residues such as branches, leaves, and roots, were used as a soil amendment on Aperam Bioenergia's (BIO) eucalyptus plantations. As such, the auditor confirmed that the portion of biochar under audit was applied as a soil amendment on BIO's eucalyptus crops.	N/A
Confirm that the biochar is produced from sustainable forest or waste biomass raw materials.	Y	The feedstock used to produce char to be used for energy production for steel manufacturing by Aperam South America (ASA) was mainly logs derived from FSC-certified eucalyptus plantations owned and operated by Aperam Bioenergia (BIO). The feedstock was transported by Aperam-owned trucks and downloaded by log handlers and fed to the batch char production kilns by front end loaders. The feedstock used to produce biochar also includes forestry residues, such as branches, leaves and roots transported to the biochar production facility.	N/A

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the producer demonstrates net-negativity with results from a LCA that shows: – [A1 Biomass and A2 Transport of biomass] carbon footprint of the biomass production and supply. – [A3 Production] emissions from the biochar production process. – [A4 Transport of biochar to site] carbon footprint of the biochar end use. – [B1 Application and use] cradle to grave.	Y	Initially, the auditor noted that flue gas emissions were not included within the emissions boundary under $E_{production}$, as outlined in Corrective Action Request 2. Upon request, Aperam Bioenergia revised the LCA calculations to contain the flue gas emissions. As such, the auditor confirmed that the LCA provided by Aperam Bioenergia included all information on the emissions of the different stages of the biochar cradle to grave life cycle.	N/A
Confirm that measures are taken for safe handling and transport of biochar to prevent fire and dust hazards.	Y	Aperam Bioenergia's char production operations were batch-based. Kilns were filled up with wood, the combustion chamber sealed, and the pyrolysis process undertaken in each kiln. During the cooling phase, heat was dissipated through the walls and the top of the kiln, which was left to cool down. Once cooled, the combustion chamber was open, and the char was handled for transportation. As such, the auditor confirmed that cooling procedures were carried out within the operation to ensure the biochar produced were not hazardous for handling and transport.	N/A

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the biochar production process meets requirements 1.1.4 to 1.1.6 of the Biochar Methodology, namely that: – It has considered the emissions related to the use of fossil fuels (coal, oil, natural gas). – there is no co-firing of fossil fuels and biomass in the same reaction chamber. – the pyrolysis gases are recovered or combusted. – the molar H/C_{org} ratio is less than 0.7.	Y	The kilns used to generate the char were designed with lateral oxygen entrances and underground ducts that provide access to the kiln's floor, also known as combustion chambers. At the combustion chambers, kindling was placed to ignite the kilns, starting the wood carbonization process, as confirmed during the virtual site visit and the previously made physical site visit. The auditor confirmed that the biochar was produced in the six char production facilities, namely UPER São Bento, UPER Cruz Grande, UPER Pontal, UPER Palmeiras, UPER Chacara and UPER Lagoa. Each facility has a different number of kilns, and the pyrolysis gases of all kilns within each facility were captured by underground ducted system(s) and combusted at high temperatures in a centralised gas burner. The auditor noted that due to maintenance or other operating factors, the gas burner may often be out of service. Aperam Bioenergia measured the time the burners were out of service and recorded this 'utilisation factor'. This value, internally called the 'burner efficiency', was used to calculate the upper limit of the quantity of biochar produced that was eligible for CORC creation (i.e. the char produced when pyrolysis gases were recovered and combusted). Under this approach, as long as the quantity of biochar applied to land was below the total eligible biochar production, it was considered that clause 1.1.5 of the Biochar Methodology had been met and CORCs could be claimed. The auditor confirmed via the LCA report, the virtual site visit, conversations undertaken with Puro.earth personnel during previous audits and remaining project evidence that the biochar production process had met requirements 1.1.4 to 1.1.6 of the Biochar Methodology. The auditor confirmed that the average of molar H/Corg ratio is 0.649, which is less than 0.7.	N/A

Confirmation of Production Facility Eligibility

Table 3: Production Facility assessment

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm the Production Facility Eligibility under the general rules of Puro Standard.	Y	The auditor confirmed that the audited body has already gone through a Production Facility Audit in 2022 and achieved a positive outcome.	N/A
Confirm that the Production Facility demonstrate Environmental and Social Safeguards.	Y	The auditor confirmed that the CO_2 Removal Supplier showed sufficient evidence to demonstrate that the Production Facility does no significant harm to the surrounding natural environmental and local communities.	N/A
Confirm the calculations used to quantify emissions from the process. These must account for: – Cultivating and harvesting of raw materials (forest vs other biomass). – The energy source used in the production process. – Transporting of raw materials to the Production Facility (based on distance transported and fuel used).	Y	The auditor identified some errors in the emissions associated with Ebiomass, Eproduction and Euse as outlined in Corrective Action Request 2. Aperam Bioenergia corrected all of these errors during the course of the audit. Aside from the issues noted, the auditor confirmed that the calculations used to quantify emissions from the process were appropriate for the methodology.	N/A

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that metering infrastructure is in place to determine: the production output. the energy use of the Production Facility.	Y	**Production output** During the virtual site visit, the auditor confirmed that an appropriately calibrated weighbridge was used to quantify both production output and the biochar sent for soil incorporation. All data was documented and tracked using management software and an internal database. The auditor noted that the total biochar in the internal system was recorded in cubic meters rather than tonnes. Aperam Bioenergia clarified that their system only allows inputs in cubic meters, so they convert the measured biochar to cubic meters using an average density of 220 kg/m^3 to enter it into the system and then convert it back to tonnes for reporting purposes. No issues were identified by the auditor regarding this approach, as the actual tonnes were measured by the weighbridges and the cubic meters were used only for system entry. **Electricity** Electricity consumption was determined using electricity bills and the supporting documentation provided. **Fuel usage** The auditor confirmed during the virtual site visit and through additional evidence, that all diesel data was documented and tracked using management software and an internal database. **Bio-oil** The auditor confirmed that Aperam Bioenergia sold the bio-oil produced and provided the corresponding invoices.	N/A

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the quantity of biochar produced and sold is documented via appropriate processes.	Finding	In the CORCs Summary, Aperam Bioenergia reported 3,033.73 tonnes of dry biochar as "stock at period start." However, in the previous output audit (2 July 2024), no claim for "stock of biochar not yet used" was made. Aperam Bioenergia clarified that, in prior audits, they reported and provided evidence only for the dry biochar applied to soil and not the total biochar produced. Subsequently, the auditor requested that Aperam Bioenergia review the reported tonnage of biochar in the CORCs Summary for the current reporting period, and Aperam Bioenergia reported zero tonnes for "stock at period start." This adjustment impacted the reported quantities of "stock at period start" and "stock of biochar not yet used."	Corrective Action Request 1 Recommendation 1

Quantification of CO_2 Removal

Table 4: Quantification of CO_2 Removal - Calculation Methodology

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the quantification of CO_2 removal is calculated using the Calculation formula of CO_2 removal.	Y	The auditor examined the CORC calculator provided by the audited body and confirmed that the formulas applied in the quantification of CO_2 removal for biochar were in accordance with the Puro Rules.	N/A

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the inputs to the Calculation formula of CO_2 removal are appropriate and consistent with the evidence provided.	Finding	The auditor noted a lack of traceability between the inputs used in the LCA and the supporting evidence provided. Upon request, Aperam Bioenergia submitted a spreadsheet containing a detailed facility-level breakdown of production data for the reporting period. This breakdown included: • Tonnes of total char produced (i.e., char sent to ASA plus biochar applied at BIO); • Gas burner efficiency (%); • Tonnes of wet biochar received back from ASA and applied at BIO (BIO–ASA–BIO LCA); • Tonnes of wet biochar applied at BIO and not transported to ASA (BIO–BIO LCA); • Moisture content; and • Tonnes of dry biochar applied to soil at BIO.	Carry Forward Recommendation 1

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
(Continued) Confirm that the inputs to the Calculation formula of CO_2 removal are appropriate and consistent with the evidence provided.	Finding	Aperam Bioenergia prepared two LCAs to account for the biochar produced on-site, which were: 1) BIO-BIO LCA: After production, the produced char was separated into coarse and fine fractions at the production facility (i.e. Aperam Bioenergia or BIO). The coarse char was subsequently sent to Aperam South America (ASA) for energy production in steel blast furnaces. The remaining fine char, along with biochar produced from forestry residues such as branches, leaves, and roots, was applied directly to the soil at BIO. 2) BIO-ASA-BIO LCA: Prior to usage in steel blast furnaces at ASA, the coarse char underwent an additional separation process into coarse and fine fractions, as only the coarse fraction was fed to the furnaces. The remaining fine char was returned to BIO for application to soil. Both LCAs used the same feedstock and resulted in the same final application to soil in eucalyptus plantations at BIO. The only difference was that the BIO-ASA-BIO LCA included an additional transport step to send and return the remaining fine char from ASA to BIO, which required extra fuel consumption. During the audit, the auditor observed that while the evidence provided and observations from the virtual site visit were consistent, some inconsistencies in the data reported in the LCA were noted, for example, $E_{production}$ reported zero emissions. Consequently, the auditor requested Aperam Bioenergia to review in detail their LCAs, resulting in the following changes to both LCAs:	Corrective Action Request 2 Carry Forward Recommendation 1

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
(Continued) Confirm that the inputs to the Calculation formula of CO_2 removal are appropriate and consistent with the evidence provided.	Finding	a) Reallocation of electricity consumption of Aperam Bioenergia from $E_{biomass}$ to $E_{production}$; b) Calculation and inclusion of flue gas emissions within the emissions boundary under $E_{production}$; c) Recalculation of diesel consumption for trucks to be in litres under $E_{production}$, instead of using the distance (kilometres) under $E_{biomass}$; d) Reallocation of all fuel usage for the transportation of biochar for soil application from total char produced to only consider the fraction applied to soil under E_{use}; e) Exclusion of the carbon mass balance calculations from $E_{production}$ as they relate to E_{stored}. Nevertheless, E_{stored} was calculated using the CORC Summary, not the LCA, hence its exclusion; and f) Review of the total dry biochar produced, applied, and the "stock of biochar not yet used" to ensure consistency with the supporting evidence. Additionally, for the BIO-ASA-BIO LCA, Aperam Bioenergia revised the allocation of transportation emissions between BIO and ASA, reallocating them from $E_{biomass}$ to $E_{production}$. These adjustments impacted the emission factors in the CORCs calculations and consequently, the number of CORCs.	Corrective Action Request 2 Carry Forward Recommendation 1

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
(Continued) Confirm that the inputs to the Calculation formula of CO_2 removal are appropriate and consistent with the evidence provided.	Finding	The auditor noted that Aperam Bioenergia used CY2023 data to calculate the LCA and determine the emission factors applied in the CORCs Summary for the reporting period from 01 March 2024 to 31 March 2025. Aperam Bioenergia explained that the LCA was conducted annually and certified by Société Générale de Surveillance (SGS) As the audit reporting period commenced in March 2024, the most recent complete dataset available was from CY2023, which was therefore used as the basis for the LCA. Additionally, during the site visit and desktop review, the auditor verified the total production and application of eligible biochar for the reporting period under audit and confirmed that Aperam Bioenergia's production process remained consistent with CY2023, with no significant changes in operations or production volumes. Lastly, Aperam Bioenergia calculated the total emissions for CY2023 by considering each emission source, including electricity consumption, fuel usage, transportation of biomass to the facilities. These emissions were divided by the total char produced and/or the biochar applied to soil, depending on the type of emission source, to determine each emission factor. The calculated factors were then applied to the biochar applied to soil. This approach ensured that emissions from biochar not yet applied would be accounted for in future audits when the biochar is eventually applied to soil.	Recommendation 2

Verification of Proofs

Table 5: Verification of proofs and documentation

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the standing data for the Production Facility meets the requirements of the Biochar Methodology and is consistent with other evidence.	Y	The auditor reviewed and validated the standing data provided by the audited body and confirmed this was consistent with desktop testing and the virtual site visit.	N/A

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the necessary proof and evidence documents are maintained by the Production Facility as per Section 5 of the Biochar Methodology[2].	Y	The auditor noted that the char invoices did not include a "no double counting" disclosure. When flagged by the auditor, Aperam Bioenergia (BIO) clarified that the char was exclusively supplied to Aperam South America (ASA) or used internally by BIO, and that no external end-users were involved. Aperam Bioenergia confirmed that a commercial transaction occurred between ASA and BIO, as the char sent to ASA was invoiced and the partial fine biochar returned for soil application was paid from BIO to ASA. Nonetheless, both companies belong to the same corporate group and was widely acknowledged the sole claimer of carbon credits was BIO. Upon request, Aperam Bioenergia provided a letter signed by representatives of both ASA and BIO, clarifying the relationship between the two entities and confirming that all rights to the carbon sequestration were solely assigned to Aperam Bioenergia (BIO). Consequently, the auditor confirmed that Aperam Bioenergia provided sufficient evidence to meet the "no double counting" requirement and that all necessary documentation was provided in accordance with Section 5 of the Biochar Guidelines.	N/A
Confirm the biochar properties are based on laboratory analyses performed in laboratories accredited by national authorities and comply with international testing standards (e.g. ASTM, ISO, AS, D).	Y	During the reporting period, Aperam Bioenergia collected and sent a total of 14 samples to the external laboratory. The auditor confirmed that the laboratory tests presented by Aperam Bioenergia were conducted by UFES (Federal University of Espírito Santo), which was accredited by national authorities, and were performed according to the ASTM D1762-64 (2021) standard.	N/A

[2] Information in Section 5 of the Biochar Methodology includes:
- Proof of sustainability of raw material for forest and/or waste biomass.
- LCA data for biomass and biochar production.
- Justification on the soil temperature used for the calculation of the biochar sequestration.
- Proof of product quality, production volume, sales and end use of biochar.
- Proof of no double counting/C positive marketing.

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
	N/A	The auditor issued this recommendation during the physical site visit during 01 August 2024 and was relevant to the continuous reactor operations. No production from the continuous reactor was part of this audit, as it remained in testing phase. As such, the auditor has issued Carry Forward Recommendation 2 for this item to be reassessed in the next audit cycle, if the continuous reactor is operational.	Carry Forward Recommendation 2

Peer Reviewer Conclusion

Name of the peer reviewer	Katherine Simmons
Peer reviewer's credentials	• Bachelor of Engineering (Honours) in Polymer Engineering (minoring in Chemical Engineering). • Category 1 Registered Greenhouse and Energy Auditor with the Clean Energy Regulator (Australia). • Climate Active Registered Consultant. • Integrated Management Systems Lead Auditor ISO 19011, ISO 9001:2015, ISO 14001:2015, ISO 45001:2018.
Peer reviewer contact details	Email: katherine.simmons@kreaconsulting.com.au Phone: +61 431 612 950
Outcome of the evaluation undertaken by the peer reviewer	I have reviewed the engagement letter, audit report and supporting work papers / source data and am satisfied that the audit has been performed in accordance with the eligibility requirements of General Rules of Puro Standard General Rules Version 3.1.

Appendix A: Response to Previous Audit Recommendations

The Output Audit conducted on 2 July 2024 (EnergyLink Services Pty Ltd) contained two recommendations. In addition, the Site Visit Report dated 21 January 2025 (EnergyLink Services Pty Ltd) contained one recommendation. The recommendations and the auditor's responses are provided in Table 6.

Table 6: Previous Audit Recommendation

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Previous report: Recommendation (1) EnergyLink Services recommends that Aperam Bioenergia augment its record keeping and quality assurance procedures to ensure that data inputs to their LCA and in the calculation of CORCs are correct, accurate, well-documented and consistent across documents.	Partially	The auditor reviewed the data inputs to LCA and in the calculation of CORCs and found several errors as outlined in Corrective Action Request 2. As such, the auditor has issued Carry Forward Recommendation 1 to ensure Aperam Bioenergia continue augmenting its record keeping and quality assurance procedures and checks.	Carry Forward Recommendation 1
Previous report: Recommendation (2) EnergyLink Services recommends that Aperam Bioenergia enhance their quality assurance procedures to ensure that emission factors used in the LCA and in the calculation of CORCs are correct, accurate, well-documented and consistent across documents reflecting the biochar production process.	Y	The auditor was able to ensure that emission factors used in the LCA and in the calculation of CORCs were consistent across documents reflecting the biochar production process. As such, the auditor was satisfied this recommendation had been addressed.	N/A

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Site Visit Final Report: Recommendation (1) On site testing for C_{org} and Hydrogen will enable Aperam to better understand on site parameters to be able to control the process and ensure either biochar or char is produced at the continuous reactor. Aperam should be able to rely on these ongoing tests as long as the results are within a range obtained by third party analysis for their CORC creation.	N/A	The auditor issued this recommendation during the physical site visit (performed 01 August 2024), and it is relevant to the continuous reactor operations. For the current audit, there were no production records from the continuous reactor, as it remained in the testing phase. As such, the auditor has issued Carry Forward Recommendation 2 for this item to be reassessed in the next audit cycle.	Carry Forward Recommendation 2

Appendix B: Table of Site Visit Findings

Table 7: Site visit summary table

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Check that the raw material is of eligible type and sustainably sourced.	Y	The feedstock used to produce char to be used for energy production for steel manufacturing by Aperam South America (ASA) was mainly logs derived from FSC-certified eucalyptus plantations owned and operated by Aperam Bioenergia (BIO). The feedstock was transported by Aperam-owned trucks and downloaded by log handlers and fed to the batch char production kilns by front end loaders. The feedstock used to produce biochar also includes forestry residues, such as branches, leaves and roots transported to the biochar production facility.	N/A
Confirm that the LCA considered the emissions related to the use of fossil fuels (coal, oil, natural gas) for ignition, pre-heating, or heating of the pyrolysis reactor. Additionally, there is no co-firing of fossil fuels and biomass in the same reaction chamber.	Y	The kilns used to generate the char were designed with lateral oxygen entrances and underground ducts that provide access to the kiln's floor, also known as combustion chambers. At the combustion chambers, kindling was placed to ignite the kilns, starting the wood carbonization process, as confirmed during the virtual site visit and the previously made physical site visit.	N/A
Check that the Production Facility's documentation system is accurate and reliable for recording the quantity of biochar produced and sold.	Finding	In the CORCs Summary, Aperam Bioenergia reported 3,033.73 tonnes of dry biochar as "stock at period start." However, in the previous output audit (2 July 2024), no claim for "stock of biochar not yet used" was made. Aperam Bioenergia clarified that, in prior audits, they reported and provided evidence only for the dry biochar applied to soil and not the total biochar produced. Subsequently, the auditor requested that Aperam Bioenergia review the reported tonnage of biochar in the CORCs Summary for the current reporting period, and Aperam Bioenergia reported zero tonnes for "stock at period start." This adjustment impacted the reported quantities of "stock at period start" and "stock of biochar not yet used."	Corrective Action Request 1 Recommendation 1

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Check that the LCA provided is consistent with observations on site.	Finding	During the audit, the auditor observed that while the evidence provided and observations from the virtual site visit were consistent, some inconsistencies in the data reported in the LCA were noted, for example, Eproduction reported zero emissions. Consequently, the auditor requested Aperam Bioenergia to review in detail their LCAs, resulting in the following changes to both LCAs: a) Reallocation of electricity consumption of Aperam Bioenergia from $E_{biomass}$ to $E_{production}$; b) Calculation and inclusion of flue gas emissions within the emissions boundary under $E_{production}$; c) Recalculation of diesel consumption for trucks to be in litres under $E_{production}$, instead of using the distance (kilometres) under $E_{biomass}$; d) Reallocation of all fuel usage for the transportation of biochar for soil application from total char produced to only consider the fraction applied to soil under E_{use}; e) Exclusion of the carbon mass balance calculations from $E_{production}$ as they relate to E_{stored}. Nevertheless, E_{stored} was calculated using the CORC Summary, not the LCA, hence its exclusion; and f) Review of the total dry biochar produced, applied, and the "stock of biochar not yet used" to ensure consistency with the supporting evidence. Additionally, for the BIO-ASA-BIO LCA, Aperam Bioenergia revised the allocation of transportation emissions between BIO and ASA, reallocating them from $E_{biomass}$ to $E_{production}$. These adjustments impacted the emission factors in the CORCs calculations and consequently, the number of CORCs.	Corrective Action Request 2 Carry Forward Recommendation 1

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Check that appropriate processes are in place to quantify the inputs to the Calculation formula of CO_2 removal for the purpose of Preparing the Output Report and calculating CORCs.	Finding	During the audit, the auditor noted that although the evidence provided and the observations from the virtual site visit were consistent, some inconsistencies were identified in the data reported in the LCA, as outlined in Corrective Action Request 2. Additionally, the auditor observed that Aperam Bioenergia used CY2023 data to calculate the LCA and determine the emission factors applied in the CORCs Summary for the reporting period from 01 March 2024 to 31 March 2025. As a result, the auditor issued the Carry Forward Recommendation 1 and Recommendation 2 to be implemented by the next audit.	Corrective Action Request 2 Carry Forward Recommendation 1 Recommendation 2
Evidence of safe handling and transport is provided and adequate for the production facility.	Y	Aperam Bioenergia's char production operations were batch-based. Kilns were filled up with wood, the combustion chamber sealed, and the pyrolysis process undertaken in each kiln. During the cooling phase, heat was dissipated through the walls and the top of the kiln, which was left to cool down. Once cooled, the combustion chamber was open, and the char was handled for transportation. As such, the auditor confirmed that cooling procedures were carried out within the operation to ensure the biochar produced were not hazardous for handling and transport.	N/A

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Check that appropriate metering infrastructure is in place and calibrated correctly to quantify the Production Facility output and the energy use of the Production Facility.	Y	**Production output** During the virtual site visit, the auditor confirmed that an appropriately calibrated weighbridge was used to quantify both production output and the biochar sent for soil incorporation. All data was documented and tracked using management software and an internal database. The auditor noted that the total biochar in the internal system was recorded in cubic meters rather than tonnes. Aperam Bioenergia clarified that their system only allows inputs in cubic meters, so they convert the measured biochar to cubic meters using an average density of 220 kg/m^3 to enter it into the system and then convert it back to tonnes for reporting purposes. No issues were identified by the auditor regarding this approach, as the actual tonnes were measured by the weighbridges and the cubic meters were used only for system entry. **Electricity** Electricity consumption was determined using electricity bills and the supporting documentation provided. **Fuel usage** The auditor confirmed during the virtual site visit and through additional evidence, that all diesel data was documented and tracked using management software and an internal database.	N/A