



Final Audit Report

Audited Body	
Puro.earth Project Proponent	American BioCarbon CT, LLC
Name of Contact for Puro.earth Project Proponent	Erwin Bogner
Production Facility Operator	American BioCarbon CT, LLC
Name of Contact for Production Facility Operator	Erwin Bogner
Production Facility Location	White Castle, LA – United States

Audit Description	
Type of Audit	Output Audit
Number of CORCs under Audit	205
Tonnes of dry biochar under Audit	177.6
Reporting Period Covered by Audit	5 July 2022 to 7 April 2023
Objective of Audit Engagement	Provide assurance opinion against requirements of Puro.earth Rules v3.1
Date of Audit Report Submission	15 September 2023

Reporting Requirements	
Number of eligible CORCs	143
Tonnes of eligible dry biochar	127.5
CORC conversion factor	1.122 tCO ₂ e per tonne dry biochar
Calculation Method	Biochar Methodology

Auditing Body	
Auditor	EnergyLink Services Pty Ltd
Lead Auditor	Rodrigo Pardo Patron
Additional Audit Personnel	Thais Monteiro Voll Brandon Melyadi
Peer Reviewer	Mark Wallace

This document details the nature and scope of the services provided by a member of EnergyLink Services in respect of the eligibility of the CO₂ Removal Supplier Production Facility under the requirements of Annex A: Biochar Methodology to 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 quantification of CO₂ Removal Certificates. 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

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Abbreviation	Description
'H'	Hydrogen
'O'	Oxygen
ABC	American BioCarbon
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 v2 Annex A: of the Puro Rules

PART A: Auditor's Report

To: Puro.earth

Dear Sir / Madam,

EnergyLink Services Pty Ltd (EnergyLink Services) was engaged to perform a reasonable assurance audit of American BioCarbon CT, LLC's (American BioCarbon) Output Audit CO₂ removal calculation from the production of biochar for the period 5 July 2022 to 7 April 2023 against the eligibility requirements of 'the Puro Standard General Rules v3.1' (hereafter referred to as "the Puro Rules").

Details of the Audited Body

Puro.earth Project Proponent	American BioCarbon CT, LLC
Production Facility Operator	American BioCarbon CT, LLC GSRN: 643002406801000602
Production Facility location	32505 LA Highway, White Castle – Louisiana, United States

Responsibility of the Audited Body's Management

The management of the audited body is responsible for the application of the requirements of 'Annex A: Biochar Methodology of the Puro Rules Edition 2022 v2' (hereafter referred to as "the Biochar Methodology") in quantifying CO₂ Removal Certificates (CORCs) from the production of biochar, which is reflected in the proof provided to EnergyLink Services.

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 Services 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 of the requirements defined in the *Fortum – Supplier Code of Conduct*¹.

Furthermore, EnergyLink Services 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*.

Our responsibility

EnergyLink Services' 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.

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

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.

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 and Recommendations

During the audit process, the auditor issued three corrective action requests, four recommendations, one carry forward recommendation, and one suggestion for improvement.

Corrective Action Request 1: Electricity

The auditor requested American BioCarbon to review its electricity calculations. As a result of the request, American BioCarbon identified a formula error in their Wonderware program. The formula error was corrected, and the estimation of the electricity consumed per tonne of biochar was amended.

Corrective Action Request 2: Soil Temperature

The auditor requested American BioCarbon to review its soil temperature input. As a result of the request, American BioCarbon identified an error. They had standardised the soil temperature at 15°C for all their clients, with White Castle, LA, serving as the reference point. The soil temperature error was corrected, and the soil temperature was amended based on the characteristics of the soil at each location of the biochar application (including Maine USA, Florida USA, Guatemala, and Mexico).

Corrective Action Request 3: Accurate transport of biochar GHG emissions

The auditor requested American BioCarbon to review its transport of biochar GHG emissions. As a result of the request, American BioCarbon identified errors which led to the following:

- The distinction of two biochar streams:
 - o Mixed biochar with ash, which is stockpiled on site; and
 - o Pure biochar for clients located at different final destinations.
- American BioCarbon had applied the same transport of biochar GHG emissions calculation for the total amount of biochar produced, irrespective of its final destination.
- American BioCarbon reviewed their GHG emissions calculation and corrected them based on online tools (such as Google Maps) in consideration of road and sea transportation (as applicable) for the pure biochar.
- To determine the required number of truckloads for transporting the biochar, American BioCarbon divided the tonnes of dry biochar produced by the truck capacity instead of tonnes of wet biochar.

The transportation GHG emissions were corrected and amended based on each stream of biochar and the location of the final destinations.

Recommendation 1: Fuel Consumption

The auditor recommends that American BioCarbon enhance its data management collection procedures for fuel consumption by measuring the fuel used by an asset (even if it is used for other activities) and make more accurate fuel consumption estimations. Any estimates should be presented with corresponding fuel records for reference. This will increase the accuracy of the LCA.

Recommendation 2: Record Keeping

The auditor recommends that American BioCarbon enhance its record keeping procedures to ensure that relevant data and information are clearly documented and stored. This should be achieved by American BioCarbon developing and adopting a documentation and procedures standard.

Recommendation 3: Quality Assurance

The auditor recommends that American BioCarbon enhance its quality assurance procedures to ensure that relevant data and information are imputed correctly to the Calculation formula of CO₂ removal.

Recommendation 4: Evidence of No Double Counting

The auditor recommends that American BioCarbon provides evidence of no double-counting by demonstrating the ownership of the carbon removals through a contract or agreement between American BioCarbon and their client(s).

Carry Forward Recommendation 1:

EnergyLink Services recommends that ABC² reviews its LCA data inputs to reflect the actual production and plant operating data.

Suggestion for Improvement 1: LCA – Weekly Records

To facilitate the identification of any discrepancies in biochar production over time, the auditor suggests that American BioCarbon consolidate the weekly LCAs in one spreadsheet for the reporting period.

Overall Conclusion

Based on the evidence provided, the auditor divided the Output Audit in two reporting periods and has provided the following conclusions:

- **No Conclusion** for the ‘first reporting period’ (5 July 2022 to 31 October 2022); and
- **Qualified Conclusion** for the ‘second reporting period’ (1 December 2022 to 7 April 2023).

Note: No biochar production was reported for November 2022.

Biochar	CORCs Under Audit	Abs. Error (CORCs)	Net Error (CORCs)	Eligible CORCs	Unable to form a conclusion	Abs. Error Rate (%)	Net Error Rate (%)
First Reporting Period	30	-	-	0	30	-	-
Second Reporting Period	175	32	32 OC	143	0	18.29%	18.29%
Total	205	32	32 OC	143	30	18.29%	18.29%

The auditor notes that the eligible number of CORCs (143) is based on 127.5 tonnes of dry biochar and therefore, the **CORC conversion factor is 1.122 tCO₂e per tonne dry biochar**.

Output Audit First Reporting Period

The auditor assessed the evidence provided by American BioCarbon and was unable to verify that the calculation of CORCs for the period of 5 July 2022 to 31 October 2022 was accurate and supported by appropriate evidence.

Because of the effects of the matters outlined in Basis for No Conclusion, the auditor was unable to express an opinion over the quantification of **30 CORCs** by the audited body for the period outlined above.

Basis for No Conclusion (5 July 2022 to 31 October 2022)

Whilst the auditor acknowledges that there was biochar production in the American BioCarbon’s Production Facility, the auditor was unable to provide assurance over the quantity and eligibility of the biochar produced for the period 5 July 2022 to 31 October 2022. This is due to significant issues with record-keeping, which were not able to be rectified during the audit.

² American BioCarbon

Refer to Appendix D for a graphical representation of the original claim and the period highlighted for no conclusion. Specifically, the following was identified:

- American BioCarbon indicated that the LCA during this period did not accurately reflect the “recipe” used for their products (i.e. biochar and pellets). Additionally, there was a lack of evidence regarding the amount of feedstock used in biochar production; and
- Significant changes were observed in the natural gas consumption throughout the reporting period and there was insufficient supporting evidence available to explain these changes.

American BioCarbon performed significant changes to their calculations and their systems during October and November 2022 to fix issues listed above.

Output Audit Second Reporting Period

In the lead auditor’s opinion, due to the matters discussed in Basis for Qualified Conclusion, **32 of the 175 CORCs** calculated are not fairly presented, free of material misstatement and have not been calculated in accordance with the Puro.earth CO₂ Removal Marketplace General Rules version 3.1. The findings represent a material misstatement, and the GHG emissions associated with the transportation of biochar were estimated following the Corrective Action Request 3. As such, the auditor has in turn formed a qualified audit opinion.

Biochar	CORCs Under Audit	Abs. Error (CORCs)	Net Error (CORCs)	Eligible CORCs	Abs. Error Rate (%)	Net Error Rate (%)
Total	175	32	32 (OC)	143	18.29%	18.29%

*OC = Overcalculation / UC = Undercalculation

Basis for Qualified Conclusion (1 December 2022 to 7 April 2023)

American BioCarbon produced biochar from sugar cane bagasse, which is a waste material from the production of raw sugar. Furthermore, American BioCarbon produced two streams of biochar:

- A pure biochar stream that is shipped to final destinations and is applied on soil for agriculture purposes; and
- A mixed biochar stream that is blended with ash and is stockpiled on site.

The auditor identified several errors in the calculation of CORCs completed by the audited body that resulted in an audit error rate exceeding the 5% materiality threshold. A summary of the errors identified include:

- Error in the formula to calculate the amount of electricity required per metric ton of dry biochar.
- Alterations to the soil temperature input: previously set at 15°C, but updated according to each stream of biochar and the location of the soil application.

Additionally, in the case of the pure biochar stream, a number of errors were identified, including:

- American BioCarbon had only considered a 250-mile radius for the transportation of the biochar, regardless of the final destination. American BioCarbon did not consider the actual distance to each customer and therefore the GHG emissions from land and sea freight were incorrect.

- American Biocarbon did not consider the application techniques and subsequent GHG emissions of the soil application of pure biochar for each client.

A detailed breakdown of the changes to the calculation of CORCs associated with these errors can be found in Table 6 of Appendix B.

Sincerely,



Rodrigo PARDO PATRON

Director of Engineering | EnergyLink Services Pty Ltd

Lead Auditor

15 September 2023

Part B: Detailed Findings

Audit Findings and Conclusions

Table 1 to Table 4 summarise the findings from the Production Output Audit for the reporting period 1 December 2022 to 7 April 2023. Due to the auditor's limited ability to provide assurance for most of the data provided during the reporting period of 5 July 2022 to 31 October 2022, comments regarding this period have not been included. 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 biochar and associated emissions was appropriate and correctly calibrated (for details refer to Appendix C).

Eligibility Assessment

Table 1: Eligibility Assessment

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the biochar is used in applications other than energy.	Finding	The auditor confirmed that the pure biochar stream that is produced at the audited facility is primarily used as an agricultural enhancer. The auditor noted that evidence of end use was not provided for all of the final destinations considered. Nevertheless, the auditor notes that it is unlikely that the biochar shipped to distant locations would be used for energy purposes. Based on conversations with American BioCarbon and additional information provided regarding the destinations that did contain specific evidence, the auditor concluded the pure biochar was used in applications other than energy. The auditor noted that the mixed biochar is blended with ash and is stockpiled on site. As such it is highly unlikely that it will be used for energy purposes.	Recommendation 2
Confirm that the biochar is produced from sustainable forest or waste biomass raw materials.	Y	The auditor confirmed that the biochar was produced by American BioCarbon from waste biomass. The feedstock was composed of sugar cane bagasse from the production of raw sugar. The sugar cane bagasse used came from existing piles located in the sugar mill.	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: – carbon footprint of the biomass production and supply. – emissions from the biochar production process. – carbon footprint of the biochar end use. – cradle to grave.	Finding	American BioCarbon maintains an on-site 2,500-gallon fuel tank that is refilled once a year. Although American BioCarbon maintain weekly records of loader usage, based on biochar production records. It is noted that the loader is also employed for tasks like moving sugar and supporting ongoing construction projects related to the sugar mill operations. As there is no fuel measurement to determine fuel usage related to the biochar facility, the fuel consumption for the production of biochar was estimated based on the number of trips required to transport the weight of wet bagasse using the front loader.	Recommendation 1
	Finding	American BioCarbon did not have electricity submetering installed at the biochar facility. American BioCarbon relied on estimations made based on hours of operation and rated capacity of the electrical infrastructure. During the course of the audit, American BioCarbon made amendments in the electricity calculation due to a formula error in their Wonderware program used to determine the required electrical energy per metric ton of dry biochar.	Corrective Action Request 1
	Finding	The auditor confirmed that American BioCarbon produces two streams of biochar in its facility: - Mixed biochar: biochar mixed with ash obtained from biomass-burnt material, which was also available at the production facility. This “mixed biochar” was stockpiled on-site, and whilst American BioCarbon has indicated that it is intended for agricultural purposes, there was no evidence to prove this. The transportation emissions for the mixed biochar were considered zero after mixing it with ash. According to the Puro Standard Biochar methodology, a project does not need to include emissions after the point of mixing the biochar in a mineral matrix, such as concrete, ash, compost, or manure, which makes the use of biochar as fuel unlikely (Chapter 4.5 of the Biochar Methodology). - Pure biochar: biochar packed in one tonne bags and shipped to end users located far away from the production facility, for example: Guatemala, Mexico, Florida USA and Maine USA. The auditor noted that American BioCarbon did not correctly consider the transportation requirements for the destination of the pure biochar product. Additionally, the auditor noted that American BioCarbon did not provide information related to the end use of this biochar stream and the emissions associated with its use.	Corrective Action Request 3 & Recommendation 1

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
(CONTINUED) Confirm that the producer demonstrates net-negativity with results from a LCA that shows: – carbon footprint of the biomass production and supply. – emissions from the biochar production process. – carbon footprint of the biochar end use. – cradle to grave.	Finding	American BioCarbon made alterations to the soil temperature variable in the calculations. Originally, American BioCarbon considered the soil temperature to be 15°C for all their clients, with White Castle, LA, serving as the reference point, regardless of the location of the biochar soil application. Upon request, American BioCarbon updated the soil temperature according to the characteristics of the soil at each location of the biochar application.	Corrective Action Request 2
	Finding	The auditor found inconsistencies and errors with the calculations used in the LCA. The errors varied in nature and materiality and included errors such as incorrect references to source data and incorrect formulas. All errors were corrected during the course of the audit. The auditor has issued a recommendation to ensure checks are performed to the calculations prior to the creation of CORCs. A summary of the errors found by the auditor are provided in Appendix C.	Recommendation 2
Confirm that the biochar production process meets requirements 1.1.4 to 1.1.6 of the Biochar Methodology, namely that: – no fossil fuel is used for heating the pyrolysis reactor – the pyrolysis gases are recovered or combusted – the molar H/C_{org} ratio is less than 0.7	Y	The auditor confirmed that although the gasification system is an auto thermal process in which the thermal energy required to run the process is created from the feedstock being processed, the system used natural gas to heat the process up to the required temperature and pressure. Once this was achieved, the heat required to sustain the reaction is taken from the combustion of the pyrolysis syngas and the recovery of waste heat generated within the process.	N/A.
	Y	The auditor confirmed during the virtual site visit that the pyrolysis gases were recovered and combusted by a thermal oxidizer. The heat from the combustion of the syngas was recovered and used to heat the pyrolysis reactor and feedstock dryer.	N/A.
	Y	The auditor confirmed that the molar H/C _{org} ratio is 0.5, which is less than 0.7.	N/A.
Confirm that measures are taken for safe handling and transport of biochar to prevent fire and dust hazards.	Y	During the virtual site visit, it was evidenced that quenching was carried out to ensure the safe handling and transport of the biochar. American BioCarbon procedures ensure that a moisture content of at least 25% is achieved in the biochar for safe handling and storage.	N/A.

Confirmation of Production Facility Eligibility

Table 2: 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 had gone through a Production Facility Audit in August 2022, and achieved a positive outcome.	N/A.
Confirm that the quantity of biochar produced and sold is documented via appropriate processes.	Y	The auditor confirmed, through discussions with American BioCarbon personnel and additional evidence provided upon the auditor's request, that American BioCarbon had procedures for managing all aspects of its biochar production data. The auditor confirmed during the virtual site visit that load cells were used to quantify the production output. The auditor also confirmed that American BioCarbon had procedures in place to ensure that the weighing system used was properly calibrated. As such, the auditor confirmed that the Production Facility documentation system was accurate and reliable.	N/A.

Quantification of CO₂ Removal

Table 3: Quantification of CO₂ 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	Except for the summary of the errors found by the auditor in Appendix C, the auditor examined the CORC calculator provided by the audited body and confirmed that the formula applied in the quantification of CO ₂ removal was as per the Puro Rules.	N/A.
Confirm that the inputs to the Calculation formula of CO ₂ removal are appropriate and consistent with the evidence provided.	Finding	The auditor found inconsistencies and errors in the inputs to the Calculation formula of CO ₂ removal. The errors found varied nature, but all were corrected during the course of the audit. The auditor issued a recommendation to ensure checks are performed to the calculations prior to the creation of CORCs. A summary of the errors found by the auditor is provided in Appendix C.	Recommendation 3

Verification of Proofs

Table 4: 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.	Finding	The auditor reviewed the standing data provided by American BioCarbon and except where noted above and throughout the audit report, confirmed American BioCarbon had procedures in place to ensure that this was consistent with desktop testing and the virtual site visit.	Recommendation 2
Confirm that the necessary proof and evidence documents are maintained by the Production Facility as per Section 5 of the Biochar Methodology ³ .	Observation	The auditor noted that American BioCarbon provided weekly LCAs in different spreadsheets. This approach could potentially lead to difficulties in identifying any discrepancies in biochar production over time. Refer to Appendix D for a graphical representation of the weekly production and emissions.	Suggestion for Improvement 1
	Finding	American BioCarbon provided evidence of biochar shipments (via bill of lading). The auditor was able to confirm no double counting via the provision of: - For one of their clients, American BioCarbon provided an invoice which included a note stating that all CORCs associated with the shipment had been claimed by American BioCarbon and that the client had not right to claim any CORCs; and - For the remainder of the clients, the auditor confirmed no double counting via the provision of circumstantial evidence (such as the client's names and their sectors that relate to agriculture) and interviews with American BioCarbon. The auditor noted that whilst we were able to confirm no double counting and the use of biochar in applications other than energy, American BioCarbon did not have appropriate processes in place to collect and maintain proofs as per Section 5 of the Biochar Methodology. As such, the auditor has issued a recommendation to address this for future claims.	Recommendation 4

³ 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.

Peer Reviewer Conclusion

Name of the peer reviewer	Mark Wallace
Peer reviewer's credentials	• Bachelor of Systems Engineering (Honours), majoring in Mechanical and Materials – Australian National University. • Certified Performance Measurement and Verification Analyst (PMVA), Efficiency Valuation Organisation (EVO). • Climate Active Registered Consultant. • Certificate IV in Project Management.
Peer reviewer contact details	Email: mark@energylinkservices.com.au Phone: +61 475 894 971
Outcome of the evaluation undertaken by the peer reviewer	Amendments to the report.

Appendix A: Response to Previous Audit Recommendations

The Production Facility's audit dated 18 August 2022 (EnergyLink Services Pty Ltd) contained one recommendation. The recommendation and the auditor's response are provided in Table 5.

Table 5: Previous Audit Recommendation

Requirement	Requirement Met?	Verification Remarks
Recommendation (1): EnergyLink Services recommends that ABC reviews its Life Cycle Assessment (LCA) data inputs to reflect the actual production and plant operating data.	Partially	The auditor reviewed the emissions calculation procedures and confirmed that while American BioCarbon reviewed the LCA data inputs and the actual biochar recorded, the plant operating data (i.e., electricity, gas, and diesel consumed by the plant) was based on estimates rather than actual data and information. By not using actual data and information, the auditor identified gaps in the evidence provided and found errors resulting from the use of these estimates (refer to Appendix D for a graphical representation of the estimate discrepancies in the reporting period). Therefore, the auditor has issued Carry Forward Recommendation 1 to ensure that American BioCarbon continues to enhance its plant operating data inputs, ensuring consistency, accuracy, transparency, and completeness in calculating the life cycle GHG emissions associated with biochar production.

Appendix B: Table of Site Visit Findings

Table 6: 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 auditor confirmed that the biochar was produced by American BioCarbon from waste biomass. The feedstock was composed of sugar cane bagasse from the production of raw sugar. The sugar cane bagasse used came from existing piles located in the sugar mill.	N/A.
Check that the LCA provided is consistent with observations on site.	Finding	Except where noted above about the non-conclusion period and exemplified in Appendix D, the auditor confirmed the LCA provided was consistent with the observations on site.	Recommendation 2
Confirm that no fossil fuel is used for heating the pyrolysis reactor, and the pyrolysis gases are recovered or combusted.	Y	The auditor confirmed that although the pyrolysis reactor involved an auto-thermal process, in which the thermal energy required to run the process is created from the feedstock being processed, the system relied on natural gas to start the process and heat the reactor to the required temperature and pressure.	N/A.
Check that the Production Facility's documentation system is accurate and reliable for recording the quantity of biochar produced and sold.	Y	The auditor confirmed during the virtual site visit that an appropriate system was in place to quantify the biochar produced and sold during the reporting period. The auditor was provided with the weighbridge calibration process followed. Additionally, American BioCarbon provided bills of lading as evidence of shipping the pure biochar.	N/A.
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.	Finding	The auditor noted that no appropriate metering infrastructure was in place to quantify the energy use of the Production Facility. It is noted that American BioCarbon relied on estimates for fuel and electricity consumption. The auditor confirmed that procedures were in place to properly calibrate the weight cells used to quantify the production input and output.	Recommendation 1
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	The auditor found inconsistencies and errors in the quantification of the inputs to the calculation formula of CO ₂ removal. The errors found varied on the source and nature and were all corrected during the audit. The auditor has issued a recommendation to ensure checks are performed to the calculations prior to the creation of CORCs. A summary of the errors found by the auditor is provided in Appendix C.	Recommendation 3

Appendix C: Summary of Calculation Errors

A summary of the calculation errors and the associated impacts on CORC calculation is provided in Table 7.

Table 7: Summary of Calculation Errors Biochar Production

Source of Error	CORC calculation	Corrected CORC calculation	Abs. Error (CORCs)	Net Error (CORCs)	Abs. Error Rate (%)	Net Error Rate (%)
No conclusion July to October 2022	205	175	30	30	14.634%	14.634%
Errors in the rounding of original CORCs	175	174	1	1	0.571%	0.571%
Errors in the electricity calculation	174	170	4	4	2.299%	2.299%
Errors in the trucking, shipping, and application emissions	170	164	6	6	3.529%	3.529%
Errors in soil temperature	164	143	21	21	12.805%	12.805%
Total including First Period Report	205	143	62	62	30.244%	30.244%
Total excluding First Period Report	175	143	32	32	18.286%	18.286%

*OC = Overcalculation/UC = Undercalculation

Appendix D: Plotted Total Life Cycle GHG Emissions

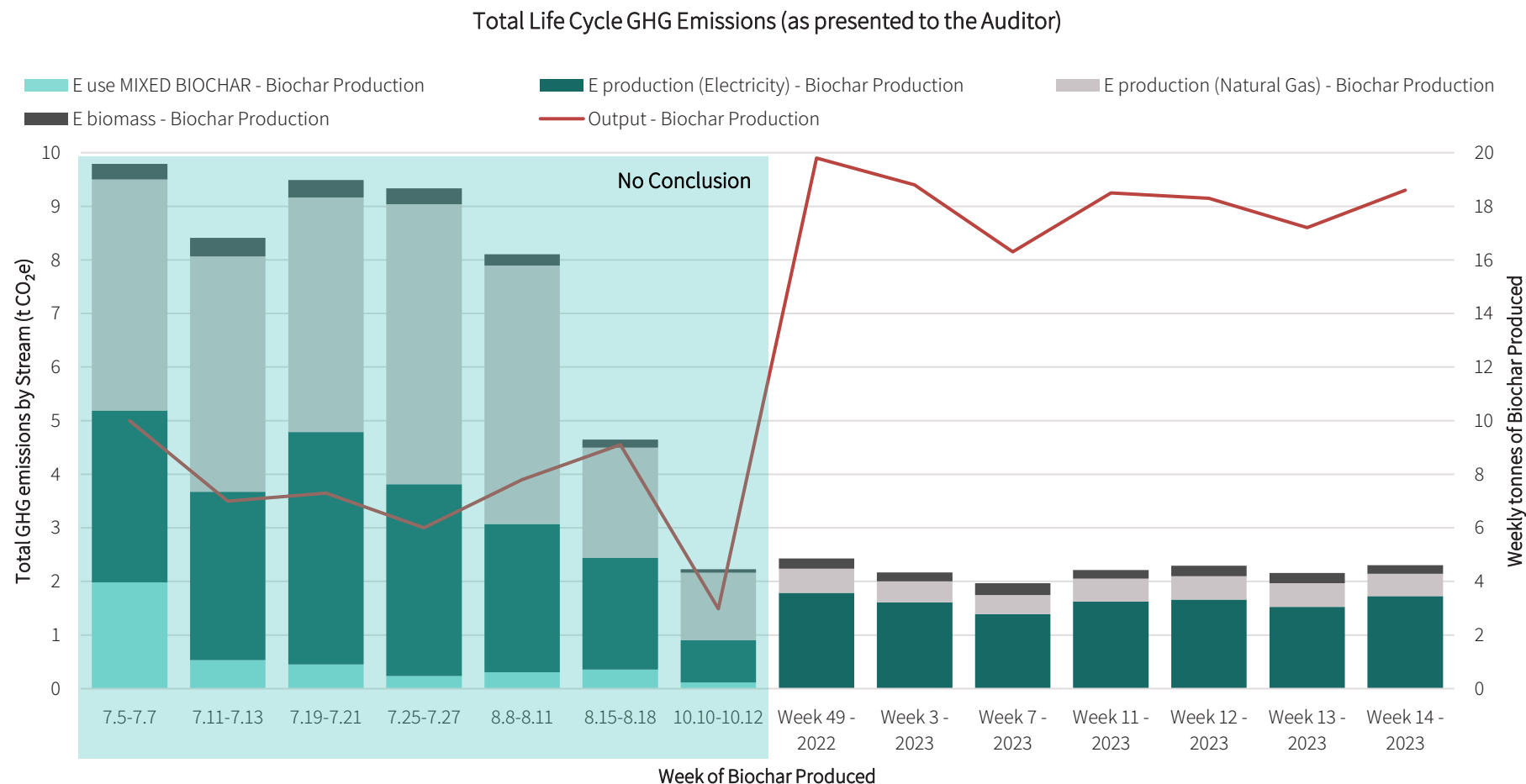


Figure 1: Plotted Life Cycle GHG Emissions as originally presented to the Auditor