Final Audit Report

Audited Bodies	
Puro.earth Project Proponent	ACT Commodities Inc
Name of Contact for Puro.earth Project Proponent	Patricio Ortiz
Production Facility Operator	Freres Engineered Wood
Name of Contact for Production Facility Operator	Kyle Freres
Production Facility Name	Freres Lumber Co., Inc.
Production Facility ID	133206
Production Facility Location	Lyons, Oregon – United States

Audit Description	
Type of Audit	Output Audit
Number of CORCs under Audit	6,834
Dry biochar volume covered by this audit	2,761 tonnes
Reporting Period Covered by Audit	1 July 2022 to 31 August 2023
Objective of Audit Engagement	Provide assurance opinion against requirements of Puro.earth Rules v3.1 (Edition 2023)
Date of Auditor Engagement	13 March 2024
Date of Audit Report Submission	27 June 2024

Reporting Requirements	
Number of eligible CORCs	6,830
Tonnes of eligible dry biochar	2,761 tonnes
CORC conversion factor (Facility)	2.4736 tCO_2e per tonne dry biochar
Calculation Method	Biochar Methodology

Auditing Body	
Auditor	EnergyLink Services Pty Ltd
Lead Auditor	Rodrigo Pardo Patron
Additional Audit Personnel	Brandon Melyadi and Thais 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 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 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 – J0476				
Document File Name	Date Issued	Version	Lead Auditor	Peer Reviewer
20240612 Freres Output Final Audit vF.0	12 June 2024	vF.0	Rodrigo Pardo Patron	Katherine Simmons
20240627 Freres Output Final Audit vF.1	27 June 2024	vF.1	Rodrigo Pardo Patron	Katherine Simmons

Contents

Abbreviation	Description
'H'	Hydrogen
'O'	Oxygen
CO_2	Carbon Dioxide
CORC	CO_2 Removal Certificate
C_{org}	Organic Carbon
dMRV	Digital Monitoring, Reporting and Verification
GHG	Greenhouse Gas
LCA	Life Cycle Assessment
OC	Overcalculation
UC	Undercalculation
The Puro Rules	The Puro Standard General Rules v3.1
The New Puro Rules	the Puro Standard General Rules v4.0 (Edition 2024)
The Biochar Methodology	Edition 2022 v3 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 Freres Engineered Wood's carbon dioxide (CO_2) removal calculation for the reporting period covered by Audit from 1 July 2022 to 31 August 2023 against the eligibility requirements of 'the Puro Standard General Rules v3.1' (hereafter referred to as "the Puro Rules").

Details of Audited Bodies

Puro.earth Project Proponent	ACT Commodities Inc
Production Facility Operator	Freres Engineered Wood GSRN: 643002406801000237 Production Facility ID: 133206
Production Facility location	Lyons, Oregon – United States

Responsibility of the Audited Bodies' Management

The management of the audited bodies (Freres Engineered Wood and ACT Commodities Inc) are responsible for the application of the requirements of 'Annex A: Biochar Methodology of the Puro Rules 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 Services.

The management of the audited bodies are responsible for the 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 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.*

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

Our responsibility

EnergyLink Services' responsibility is to express an opinion on the Freres Engineered Wood and ACT Commodities' 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 bodies' 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 bodies;
- assessing the audited bodies against eligibility criteria;
- conducting interviews and a (virtual) site visit to validate the evidence provided;
- analysing procedures that the audited bodies used to gather data;
- testing of calculations that the audited bodies 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 bodies and Puro.earth for the sole purpose of reporting on the audited bodies' 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 bodies 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 Suggestions for Improvement

During the audit process, the auditor issued one corrective action request and two suggestions for improvement. The auditor verified that the audited bodies had addressed the corrective action request and as such is satisfied that the correct calculations had been provided.

Corrective Action Request 1

The auditor noted that Freres had swapped the annual hours used of mobile equipment between 2021 to 2023. As such, the LCA had mistakenly accounted for 2021 data, instead of 2023. Subsequently, Freres amended their LCA to ensure that the correct annual hours used were allocated for each year.

Suggestion for Improvement 1

The auditor suggests that Freres obtain data from records (i.e. evidence) to calculate the percentage (%) use allocated to the boiler operation. This will ensure the allocation is reflective of the actual usage on site.

Suggestion for Improvement 2

The auditor suggests that more frequent/periodic biochar lab results be taken by Freres to ensure consistency. The lab results frequency should be determined by the variance of the results (i.e. if the results vary considerably, more tests should be completed).

Overall Conclusion

Positive Conclusion (Production Output Audit)

Facility Production Stream Summary

In the lead auditor's opinion, the carbon removal activity performed in the audited CO_2 Removal Supplier's Production Facility met the eligibility requirements of the Puro Rules. However, due to the matters described in Corrective Action Request 1, the tCO_2e per dry tonne biochar had been updated to reflect the changes made to the LCA calculations.

Initial CO_2 Removal	Eligible CO_2 Removal
2.4752 tCO_2e per tonne of dry biochar	2.4736 tCO_2e per tonne of dry biochar

Production Output Audit

The lead auditor is able to express a reasonable assurance opinion that, in all material respects, the quantification of 6,830 CO_2 Removal Certificates (CORCs) for the reporting period 1 July 2022 to 31 August 2023 are eligible for creation.

The audit procedures indicated that an overcalculation of four (4) CORCs was made by the audited bodies.

The lead auditor notes that the absolute error rate is below 5%, therefore the quantitative error identified during the audit is not considered material. A summary of the recalculations performed can be found in Table 8 of Appendix B.

Biochar	CORCs Under Audit	Abs. Error (CORCs)	Net Error (CORCs)	Eligible CORCs	Abs. Error Rate (%)	Net Error Rate (%)
Total	6,834	4	4 OC	6,830	0.06%	0.06%

*OC = Overcalculation / UC = Undercalculation

Ongoing Issuance and Digital Monitoring, Reporting and Verification

Despite the audit being completed under the Puro Standard General Rules v3.1, the auditor has considered the requirements of Appendix A of the Puro Standard General Rules v4.0 (Edition 2024) (the New Puro Rules). The auditor has considered the Production Facility and the internal processes, controls and systems to form an opinion over the ongoing issuance and digital monitoring, reporting and verification (dMRV).

In the auditor's opinion, the Freres Engineered Wood Production Facility at Lyons, Oregon, United States has:

- Demonstrated regular industrial operations; and
- Successfully completed a performance verification for the previous Monitoring Period that exceeds three months of Output.

Sincerely,

Rodrigo PARDO PATRON | Director of Engineering
EnergyLink Services Pty Ltd
Lead Auditor
27 June 2024

Part B: Detailed Findings

Audit Findings and Conclusions

Table 1 to Table 6 summarise 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 bodies were accurate, and that the metering used to quantify the Output was appropriate and correctly calibrated (for details refer to Appendix A).

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.	Y	The auditor confirmed through the evidence provided that the biochar was shipped to only one company during the reporting period, to be used for landfill application. The auditor also confirmed that appropriate documentation was maintained to evidence the end use of biochar was for landfill application.	N/A
Confirm that the biochar is produced from sustainable forest or waste biomass raw materials.	Y	The auditor confirmed that the biochar was produced from sustainably sourced biomass. The feedstock was composed of wood waste, mainly bark.	N/A
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.	Y	The auditor confirmed that the LCA provided by Freres Engineered Wood included all information on the emissions of the different stages of the biochar cradle-to-grave life cycle.	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: – 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 the powerplant system is an auto thermal process, in which the thermal energy required to run the process is created from the feedstock (biomass) being processed. The auditor confirmed that the pyrolysis gases and heat are used for electricity generation and in the veneer drying and block conditioning processes.	N/A
		The pyrolysis gases are recovered and combusted.	
		The auditor confirmed that the molar H/C_{org} ratio was 0.26, which is less than 0.7.	
Confirm that measures are taken for safe handling and transport of biochar to prevent fire and dust hazards.	Y	The auditor confirmed that measures are taken to ensure safe handling and transport of biochar.	N/A

Standing Data

Table 2: Record Keeping

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the standing data of the Production Facility and the CO_2 Removal Supplier was collected and checked.	Y	The auditor confirmed that the standing data of the Production Facility and the CO_2 Removal Supplier was collected and checked.	N/A

Production Facility Assessment

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 Freres Engineered Wood had gone through a Production Facility Audit in 2022 and achieved a positive outcome and that no major changes to the Facility had occurred since the Facility Audit was completed. The auditor confirmed that the Production Facility has procedures in place to quantify the electricity and fuel consumed by its operations using their production records.	N/A
Confirm that the Production Facility demonstrate Environmental and Social Safeguards.	Y		N/A
Confirm that the Production Facility demonstrate additionality, that the CO_2 removals are a result of carbon finance, and that the project is not required by existing regulations or other obligations.	Y		N/A
Confirm that metering infrastructure is in place to determine: – the production output. – the energy use of the Production Facility.	Y		N/A

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm the calculations used to quantify emissions from the process. These must account for: – The energy created by the biochar. – The energy source used in the production process. – Cultivating and harvesting of raw materials (forest vs other biomass). – Transporting of raw materials to the Production Facility (based on distance transported and fuel used).	Y	The auditor noted that Freres had updated their LCA for the calculation of "A1 Materials", resulting in the reduction of ~35% of emissions in the per unit factor. Specifically, the previous approach had used diesel consumption estimation, while the current LCA had used the wood waste chipping approach.	N/A
	Observation	The auditor noted that the total diesel consumed for boiler operation had been apportioned using the percentage (%) estimates of use for each equipment. These estimates had been made by the Rolling Stock Manager, who oversees the maintenance on this equipment and tracks the hours usage and were not based on any calculations.	Suggestion for Improvement 1
	Y	The auditor noted that Freres had previously accounted for feedstock storage emissions during their previous audit, which had been excluded from the current LCA. Freres noted contrary to the previous audit, during the reporting period covered by this audit, they only had storage capacity of ground feedstock of one week, which is below the one-month threshold.	N/A
Confirm the CO_2 Removal Supplier is able to calculate the CO_2 Removal independently.	Y	The auditor reviewed the evidence provided by the audited bodies and confirmed that the CO_2 Removal Supplier was able to calculate the CO_2 removal independently.	N/A

Confirmation of Production Facility Eligibility

Table 4: 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 production facility is eligible under The Puro Rules.	N/A
Confirm that the quantity of biochar produced and sold is documented via appropriate processes.	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.	N/A

Quantification of CO_2 Removal

Table 5: 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 bodies and confirmed that the formulas applied in the quantification of CO_2 removal were in accordance with 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 noted that Freres had swapped the annual hours used of mobile equipment between 2021 to 2023. As such, the LCA had mistakenly accounted for 2021 data, instead of 2023. This error resulted in the over creation of 4 CORCs. Except where noted above, the auditor reviewed the evidence provided by the audited bodies and confirmed that the inputs to the calculation formula of CO_2 removal had been correctly determined.	Corrective Action Request 1
	Observation	The auditor noted that Freres had used one biochar lab test from August 2023 for the reporting period of July 2022 to August 2023.	Suggestion for Improvement 2

Verification of Proofs

Table 6: 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 bodies and confirmed this was consistent with desktop testing and the virtual site visit.	N/A
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 confirmed through the evidence provided that the biochar production subject to this audit was shipped to only one company during the reporting period, to be used for landfill application. The auditor also confirmed that appropriate documentation was maintained to evidence the end use of biochar was for landfill application. The auditor confirmed all necessary evidence had been provided as per Section 5 of the Biochar Guidelines.	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.

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 the Puro.earth CO_2 Removal Marketplace v 3.1

Appendix A: 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 auditor confirmed that the biochar was produced from waste biomass raw materials.	N/A
Check that the LCA provided is consistent with observations on site.	Y	The auditor confirmed that the LCA provided by the audited bodies was an accurate representation of the Production Facility and used appropriate assumptions where necessary.	N/A
Confirm that no fossil fuel is used for heating the pyrolysis reactor, and the pyrolysis gases are recovered or combusted.	Y	The auditor confirmed, via the virtual site visit that the biochar production process had met the requirements of the Biochar Methodology.	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.	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.	Y	The auditor confirmed during the virtual site visit that appropriate metering infrastructure was in place to quantify the produced biochar, and that the equipment used was calibrated.	N/A
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.	Y	Except where noted in Part B: Detailed Findings, the auditor reviewed the evidence provided by the audited bodies and confirmed that the inputs to the Calculation formula of CO_2 removal had been correctly determined.	N/A

Appendix B: Summary of Calculation Errors

A summary of the calculation errors and the associated impacts on CORC calculation is provided in Table 8.

Table 8: Summary of Calculation Errors

No.	Source of Error	CORC calculation	Corrected CORC calculation	Abs. Error (CORCs)	Net Error (CORCs)	Abs. Error Rate (%)	Net Error Rate (%)
1	Error in the annual hours used	6,834	6,830	4	4 OC	0.06%	0.06%
	Total	**6,834**	**6,830**	**4**	**4 OC**	**0.06%**	**0.06%**

*OC = Overcalculation/UC = Undercalculation

Appendix C: Previous Audit Recommendation

In the previous audit dated 26 September 2022, EnergyLink Services Pty Ltd issued three (3) recommendations. These recommendations and Freres' responses are outlined below.

Table 9: Summary of Previous Audit Recommendation

No.	Recommendation	Addressed (Y/N)	Comments	Recommendation / Suggestion for Improvement
1	EnergyLink Services recommends that Freres Engineered Wood review its LCA calculation so that all emissions associated with the biochar LCA are accounted for in the Net Embodied CO_2 calculation of the produced biochar.	Y	The auditor reviewed the LCA and confirmed that the calculation had accounted for all emissions.	N/A
2	EnergyLink Services recommends that Freres Engineered Wood augment its record-keeping procedures so that the biochar shipment records accurately reflect the information of the biochar shipped to the end-user, and exclude the biochar moved for a different purpose	Y	The auditor confirmed that the biochar was shipped to only one company during the reporting period, to be used for landfill application.	N/A
3	EnergyLink Services recommends that Freres Engineered Wood augment its CORC calculation procedures so that all inputs to the calculation formula of CO_2 removal are reflective of the evidence provided (e.g. the Net Embodied CO_2).	Y	The auditor reviewed the LCA and confirmed that inputs are supported and reflective of the evidence provided.	N/A