Final Audit Report

Audited Body	
Puro.earth Project Proponent	Exomad SRL
Name of Contact for Puro.earth Project Proponent	Marcelo Pereira
Production Facility Operator	Exomad SRL
Name of Contact for Production Facility Operator	Marcelo Pereira
Production Facility name	Exomad Riberalta
Production Facility ID	292788
Production Facility Location	Riberalta, Bolivia

Audit Description	
Type of Audit	Production Facility Audit and Output Audit
Number of CORCs under Audit	2,426
Tonnes of dry biochar under Audit	1,115.30
CORC conversion factor under Audit	2.175 tCO_2e per tonne dry biochar
Reporting Period Covered by Audit	17 July 2024 to 6 September 2024
Objective of Audit Engagement	Provide assurance opinion against requirements of Puro General Rules Version 4.0
Date of Auditor Engagement	5 November 2024
Date of Audit Report Submission	18 December 2024

Audit Outcomes	
Production Facility Eligibility	**Eligible**
Number of eligible CORCs	**2,276**
Tonnes of eligible dry biochar	**1,115.30**
CORC conversion factor	**2.041 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	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 Edition 2022 v3 and the Puro General Rules Version 4.0.

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 – J0656				
Document File Name	Date Issued	Version	Lead Auditor	Peer Reviewer
20241218 Exomad Riberalta – Biochar Facility and Output Final Audit Report vF.0	18 December 2024	vF.0	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
GHG	Greenhouse Gas
LCA	Life Cycle Assessment
SDGs	Sustainable Development Goals
OC	Overcalculation
UC	Undercalculation
The Puro Rules	the Puro General Rules Version 4.0
The Biochar Methodology	Biochar Methodology Edition 2022 v3

PART A: Auditor's Report

To: Puro.earth

Dear Sir / Madam,

EnergyLink Services Pty Ltd (EnergyLink Services) were engaged to perform a reasonable assurance audit of Exomad SRL's (Exomad) CO_2 Removal Certificates (CORCs) calculation for the reporting period covered by the audit, from 17 July 2024 to 6 September 2024, against the eligibility requirements of 'Puro General Rules Version 4.0' (hereafter referred to as "the Puro Rules").

Details of Audited Body

Puro.earth Project Proponent	Exomad SRL
Production Facility Operator	Exomad SRL
Production Facility name	Exomad Riberalta
Production Facility ID	292788
Production Facility location	Carretera Riberalta – Santa Rosa, SN; Zona: E., Riberalta, Bolivia

Responsibility of the Audited Body's Management

The management of the audited body 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 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 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 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 four (4) corrective action requests (CAR), which were addressed during the course of the audit. Furthermore, the auditor issued two (2) recommendations to be implemented by the next audit and one (1) suggestion for improvement and its implementation is optional.

Corrective Action Request 1: Quality Assurance

The auditor noted that Exomad used annual production estimates to calculate the net negativity of the biochar in the LCA. Exomad clarified that the evidence initially provided to the auditor was based on annual estimates and was outdated. Subsequently, Exomad supplied the auditor with the most recent version of the LCA which included calculations based on actual data from the production of biochar during the audit reporting period, which was from 17 July 2024 to 6 September 2024.

Corrective Action Request 2: Mislabelling

The auditor noted that the dry biochar weight was higher than the wet biochar weight listed in the production report. Exomad clarified that this was due to a mislabelling issue in the column header, and that the lower values correspond to the dry mass. Subsequently, Exomad provided an updated production report with the correct descriptions. This CAR did not impact the production of biochar included in the CORC calculation.

Corrective Action Request 3: Emissions Factors

The auditor noted that the emissions factors for the stack emissions in the LCA were recorded as zero. Upon request, Exomad SRL reviewed the emissions factors and made the necessary amendments to the LCA.

Corrective Action Request 4: Fuel Consumption

The auditor noted that fuel consumption in the LCA was based on fixed values and requested clarification on the calculations and assumptions behind these values. As a result, the following changes to fuel consumption were made:

- Exomad reviewed the diesel consumption based on actual records in the LCA since it did not align with the total diesel consumption in the fuel records, specifically for processes such as biomass collection and transportation, biomass pre-processing, biochar management, and transportation of biochar to the end-user; and
- Exomad revised the diesel consumption estimates for the biochar application to 1.73 litres per tonne of biochar, referencing the Ecoinvent database for a comparable process, the "solid manure loading and spreading" in agricultural manufacturing.

Subsequently, Exomad reviewed the diesel consumption and made the necessary amendments to the LCA.

Recommendation 1: Quality Assurance

Finding

At the commencement of the audit and as part of the audit procedures, EnergyLink Services provides the audited body a document named “Biochar Audit Engagement Letter”. This document outlines the terms of the audit and specifies the scope of services that EnergyLink Services will provide to the audited body (i.e. Exomad). The document also includes an *Audit Description* section, which details key audit information such as the number of CORCs under audit, tonnes of dry biochar, CORC factor, and the reporting period.

As noted by the auditor, the final report error rate depends on the figures outlined in the *Audit Description* section of the Biochar Audit Engagement Letter. Henceforth the need for this section to be accurate,

consistent across all documents, and reflects the correct data. If discrepancies are identified, the audited body should communicate them to the auditor to avoid reliance on outdated evidence packs and ensure the accuracy of the CORC claim.

Due to the above and the findings described in Corrective Action Request 1, the auditor has issued the following recommendation, to be assessed by the next audit.

Recommendation

The auditor recommends that Exomad enhance its quality assurance procedures to ensure the *Audit Description* section of the "Biochar Audit Engagement Letter" is thoroughly reviewed. This review should confirm alignment with the most recent version of the CORCs claim and associated documentation provided for audit.

Recommendation 2: LCA Calculation and Record Keeping Procedures

Findings

Because of the findings described in Corrective Action Request 2, Corrective Action Request 3 and Corrective Action Request 4, the auditor has issued the following recommendation, to be assessed in the next audit.

Recommendation

The auditor recommends that Exomad augment its LCA calculation and record keeping procedures to ensure that:

- All data, assumptions, and formulae used for the calculation of emissions associated with the biochar life cycle are traceable, transparent, well-documented, complete, and consistent with the supporting evidence, and
- All relevant emissions sources are properly traceable, transparent, well-documented and consistent in the LCA emissions boundary.

Suggestion for Improvement 1: Electricity Consumption

The auditor confirmed that at the time of the audit, the electricity consumption at the Exomad Riberalta Production Facility was measured by a single meter, with all operations attributed to biochar production. As Exomad plans to expand operations on site to include other wood production facilities, the auditor suggests installing a submeter to enable the accurate quantification of electricity consumption specifically for biochar production.

Overall Conclusion

Positive Conclusion (Production Facility Audit)

Adverse Conclusion (Production Output Audit)

Production Facility Audit

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 General Rules Version 4.0.

Production Output Audit

In the lead auditor's opinion, due to the matters discussed in *Basis for Adverse Conclusion* related to the CORCs claim, the quantification of **2,276 CO_2 Removal Certificates (CORCs)** for the reporting period from 17 July 2024 to 6 September 2024 by the audited body was correct.

Table 1: Audited CORCs summary

Biochar	CORCs Under Audit	Abs. Error (CORCs)	Net Error (CORCs)	Eligible CORCs	Abs. Error Rate (%)	Net Error Rate (%)
Total	2,426	150	150 OC	2,276	6.18%	-6.18%

*OC = Overcalculation / UC = Undercalculation

Basis for Adverse Conclusion

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. Amongst the errors identified are:

- Outdated data in LCA and CORCs Summary, resulting in a change to the calculated quantity of CORCs;
- Discrepancies in fuel consumption values in the LCA that did not align with fuel records, resulting in a change to the calculated quantity of CORCs;
- Revised diesel estimate for the Biochar Application; and
- Incorrect emission factor applied to stack emissions, resulting in a change to the calculated quantity of CORCs.

A detailed breakdown of the changes to the calculation of CORCs associated with these errors can be found in Table 8 of Appendix B.

Ongoing Issuance and Digital Monitoring, Reporting and Verification

As per Appendix A of the 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).

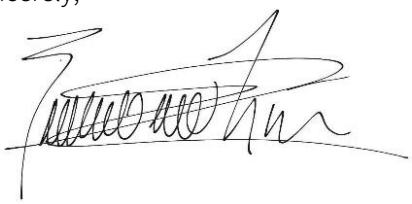
In the auditor's opinion, the Exomad SRL Production Facility Carretera Riberalta – Santa Rosa, SN; Zona: E. Riberalta, Bolivia has:

- Demonstrated regular industrial operations; and
- Completed a performance verification review (i.e. this audit) for the previous monitoring period with over 3 months of Output.

Nevertheless, the Facility and Output Audit Report provided an Adverse Conclusion and contained four (4) corrective action requests. Furthermore, the auditor issued two (2) recommendations to be implemented by the next audit. Consequently, whilst Exomad has the capability for ongoing issuance and dMRV, the

auditor recommends Exomad SRL to undertake another Output Audit, under Puro General Rules Version 4.0 prior to be eligible to the ongoing issuance of certificates.

Sincerely,



Rodrigo PARDO PATRON | Director of Engineering
EnergyLink Services Pty Ltd
Lead Auditor
18 December 2024

Part B: Detailed Findings

Audit Findings and Conclusions

Table 2 to Table 6 summarises the findings from the Production Facility and 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 (for details refer to Appendix B).

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 auditor confirmed that the produced biochar was used as a soil amendment for agricultural purposes. The distribution of the biochar to end-users is carried out by Exomad, which distributes the biochar to local farmers.	N/A.
Confirm that the biochar is produced from sustainable forest or waste biomass raw materials.	Y	The auditor confirmed that the biochar produced in the Exomad Riberalta Production Facility was produced from waste material that comes from sustainably sourced biomass. The feedstock was composed of forestry residues and sawdust, which are co-products of regional sawmills certified by the *Autoridad de Fiscalización y Control Social de Bosques y Tierra* (ABT).	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	The auditor confirmed that the LCA provided by Exomad included all information on the emissions of the different stages of the biochar cradle to grave life cycle, based on the following: • A1 Biomass and A2 Transport: Emissions from biomass collection and transport were calculated using diesel consumption records. No emissions were considered for biomass storage due to the high turnover and low stock levels. • A3 Production: Emissions from biochar production, including infrastructure impact, equipment construction and decommissioning, energy use (based on electricity bills, diesel records, and LPG consumption), lubricants consumption, waste management for lubricants and bio-oil, and stack emissions. • A4 Transport to Site: Emissions from transporting biochar to local farms were calculated using diesel consumption records. • B1 Application and Use: Emissions from applying biochar were estimated based on the amount of biochar applied and emissions factors from a database source.	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 auditor verified that while the pyrolysis system operated as an auto-thermal process, generating the necessary thermal energy from the processed feedstock, it initially relied on LPG to initiate and stabilise the syngas flame within the reactors. Additionally, firewood is used initially in the furnace before being replaced by syngas from the reactors. Based on the above, the auditor confirmed that the emissions related to the use of fossil fuels were considered and there is no co-firing of fossil fuels and biomass in the same reaction chamber.	N/A.
		A portion of the pyrolysis gases is recovered and combusted for use in the rotary dryers, while the excess is combusted in an open-flaring system.	
		The auditor confirmed that the molar H/Corg ratio is 0.245, 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	During the virtual site visit, the auditor confirmed that at the exit of the reactor, the biochar was carried out by three lines of double layer screw conveyors, each encapsulated in a water-cooling system, where water runs between two metal cylinders. Subsequently, the outputs from the pyrolysis reactors are combined via screw conveyors into a rotating drum, where the biochar may be sprayed with water and nutrients, as required. This process serves to suppress dust and incorporates microorganisms beneficial for local agriculture. Additionally, Exomad presented its Safety & Health Protocol, Biochar Handling Protocol, and evidence of team training conducted by Exomad.	N/A.

Standing Data

Table 3: 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 4: Production Facility assessment

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
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 body and confirmed that the CO_2 Removal Supplier was able to calculate the CO_2 removal independently.	N/A
Confirm the CO_2 Removal Supplier evaluated leakage following the requirements defined in the Biochar Methodology.	N/A	As per section 6.2.4 of the Puro General Rules Version 4.0, methodologies in the Puro Standard shall have requirements designed to avoid, minimise, or mitigate the effects of Leakage. Since the Biochar Methodology Edition 2022 v3 does not have a clear requirement for the leakage, this requirement will be revisited during the next audit.	N/A
Confirm the CO_2 Removal Supplier used conservative assumptions, values and procedures to ensure that the CO_2 Removal issued as CORCs is not overstated.	Y	Most activity data of the CORCs calculations were based on actual values from the production records, such as energy used in the production facility, biomass input, and biochar production. Nevertheless, the estimations and assumptions made by Exomad, such as soil temperature and diesel usage for biochar application, were conservative and scientifically justifiable.	N/A

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Confirm that the CO_2 Removal Supplier demonstrate Environmental and Social Safeguards.	Y	Through the Environmental and Social Safeguards questionnaire and additional documents provided, the CO_2 Removal Supplier complies with the environmental and social safeguards as outlined in Section 6.4 of the Puro General Rules Version 4.0, with responses consistent with the identified impacts and risks. The auditor confirmed that the CO_2 Removal Supplier provided sufficient evidence to demonstrate that the Production Facility does not cause significant harm to the surrounding natural environment or local communities.	N/A
Confirm that the CO_2 Removal Supplier 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	The auditor confirmed that the CO_2 Removal Supplier showed sufficient evidence to demonstrate that the project meets the requirements as outlined in Section 6.5 of the Puro General Rules Version 4.0 and Additionality Assessment requirements.	N/A
Confirm that the CO_2 Removal Supplier provided qualitative descriptions of expected positive impacts in the SDGs before the Production Facility Audit.	N/A	Since Exomad did not claim any Sustainable Development Goals for this audit, this requirement, as outlined in Section 6.6 of the Puro General Rules Version 4.0, will be revisited during the next audit.	N/A
Confirm that the CO_2 Removal activities certified under Puro Standard sequester carbon to highly durable storages.	Y	The auditor confirmed that the CORCs issued has been removed to a certified storage and quantified according to the Biochar Methodology and the risk of re-emissions is negligible.	N/A
Confirm the Production Facility Eligibility under the general rules of Puro Standard.	Y	The auditor confirmed that the Production Facility is eligible under the general rules of Puro Standard, and all necessary evidence had been provided.	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	The auditor noted that the dry biochar weight was higher than the wet biochar weight listed in the production report. Exomad SRL clarified that this was due to a mislabelling issue in the column header, and that the lower values correspond to the dry mass. Subsequently, Exomad SRL provided an updated production report with the correct descriptions. The auditor raised the matter to the audited body, which amended the production report with the correct descriptions. This error did not impact the final number of CORCs.	Corrective Action Request 2 Recommendation 2
Confirm that metering infrastructure is in place to determine: • the production output. • the energy use of the Production Facility.	Finding	Production output The auditor confirmed during the virtual site visit and through additional evidence, that appropriate metering infrastructure was in place to quantify the produced biochar, and that the equipment used (onsite scale) was calibrated. Exomad also demonstrated the use of a moisture meter and outlined its procedures for measuring moisture content. While the moisture meter specifications indicate it cannot be calibrated, Exomad plans to replace this equipment annually to maintain accuracy.	Corrective Action Request 4 Recommendation 2

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
(CONT.) Confirm that metering infrastructure is in place to determine: • the production output. • the energy use of the Production Facility.	Finding	**Energy Use** The auditor confirmed that electricity consumption at the Exomad Riberalta Production Facility is currently measured by a single meter, with all operations attributed to biochar production. Given Exomad 's plans to expand operations, the auditor suggests installing a submeter in the future to establish a dedicated metering system specifically for biochar production. In addition, the auditor noted that fuel consumption in the LCA was based on fixed values and requested clarification on the calculations and assumptions behind these values. As a result, the following changes to fuel consumption were made: • Exomad revised the fuel consumption based on actual records for the reporting period in the LCA since it did not align with the total diesel consumption in the fuel records. The diesel consumed was for processes such as biomass collection and transportation, biomass pre-processing, biochar management, and transportation of biochar to the end-user; and • Exomad revised the diesel estimate for biochar application to 1.73 litres per tonne of biochar, referencing the Ecoinvent database for a comparable process, "solid manure loading and spreading", in agricultural manufacturing. Subsequently, Exomad reviewed the diesel consumption and made the necessary amendments to the LCA. **These errors impacted the final number of CORCs (for details refer to Appendix B).**	Corrective Action Request 4 Recommendation 2 Suggestion for Improvement 1

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).	Finding	The auditor identified a few transcriptions and calculation errors in the LCA for the quantification of the emissions from the biochar production process, including: - An error in the version of the LCA provided to the auditor, which included calculations based on annual estimates and was outdated instead of actual data; - An error in the total diesel consumption data for the production period considered in the LCA. The following was noted: o This resulted in the overcalculation of the emissions associated with the consumption of diesel by the forklifts, dump trucks, loader and other activities for biomass pre-processing and biochar handling used in the factory; and o The LCA considered the consumption of diesel of 16,600l over the reporting period, whereas the factory logs recorded the consumption of 13,540l of diesel. - Exomad revised the diesel estimate for biochar application to 1.73 litres per tonne of biochar, referencing the Ecoinvent database for a comparable process, "solid manure loading and spreading", in agricultural manufacturing; and - An error in the emission factor used for the quantification of the emissions associated with emissions from the stack, including: o The error was due to the stack emissions in database tab of the LCA was fixed value listed as *zero*, instead of summing the columns with all gases emissions columns. This resulted in the undercalculation of the emissions associated with the stack emission; and o The LCA considered 0 $kgCO_2e$ per kg of biochar produced, instead of 0.00108 $kgCO_2e$ per kg of biochar produced stated in the source provided by the audited body. **These errors resulted in the over-calculation of 150 CORCs, additionally, the auditor was unable to verify the accuracy of the emission factors derived from the private database, Ecoinvent.** Except when noted above, the auditor confirmed that the LCA provided by Exomad included all information on the emissions of the different stages of the biochar life cycle (cradle-to-grave).	Corrective Action Request 1 Corrective Action Request 3 Corrective Action Request 4 Recommendation 1 Recommendation 2

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 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
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 on the source and nature and were all 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 is provided in Appendix B.	Recommendation 1 Recommendation 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 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 confirmed all necessary evidence has 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 Puro General Rules Version 4.0.

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 produced in the Exomad Riberalta Production Facility was produced from waste material that comes from sustainably sourced biomass. The feedstock was composed of forestry residues and sawdust, which are co-products of regional sawmills certified by the *Autoridad de Fiscalización y Control Social de Bosques y Tierra* (ABT).	N/A.
Check that the LCA provided is consistent with observations on site.	Y	The auditor confirmed LCA provided was an accurate representation of the Production Facility and used appropriate assumptions where necessary.	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 auditor verified that while the pyrolysis system operated as an auto-thermal process, generating the necessary thermal energy from the processed feedstock, it initially relied on LPG to initiate and stabilise the syngas flame within the reactors. Additionally, firewood is used initially in the furnace before being replaced by syngas from the reactors. Based on the above, the auditor confirmed that the emissions related to the use of fossil fuels were considered and there is no co-firing of fossil fuels and biomass in the same reaction chamber.	N/A.
Evidence of safe handling and transport is provided and adequate for the production facility.	Y	During the virtual site visit, the auditor confirmed that at the exit of the reactor, the biochar was carried out by three lines of double layer screw conveyors, each encapsulated in a water-cooling system, where water runs between two metal cylinders. Subsequently, the outputs from the pyrolysis reactors are combined via screw conveyors into a rotating drum, where the biochar may be sprayed with water and nutrients, as required. This process serves to suppress dust and incorporates microorganisms beneficial for local agriculture. Additionally, Exomad presented its Safety & Health Protocol, Biochar Handling Protocol, and evidence of team training conducted by Exomad.	N/A.

Requirement	Requirement Met?	Verification Remarks	Corrective Action Request / Recommendations
Check that the Production Facility's documentation system is accurate and reliable for recording the quantity of biochar produced and sold.	Finding	The auditor noted that the dry biochar weight was higher than the wet biochar weight listed in the production report. Exomad clarified that this was due to a mislabelling issue in the column header, and that the lower values correspond to the dry mass. Subsequently, Exomad provided an updated production report with the correct descriptions. The auditor raised the matter to the audited body, which amended the production report with the correct descriptions. This error did not impact the final number of CORCs.	Corrective Action Request 2 Recommendation 2
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 inputs to the Calculation formula of CO_2 removal. The errors found varied on the source and nature and were all 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 is provided below and in Appendix B.	Recommendation 1 Recommendation 2

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.	Finding	**Production output** The auditor confirmed during the virtual site visit and through additional evidence, that appropriate metering infrastructure was in place to quantify the produced biochar, and that the equipment used (onsite scale) was calibrated. Exomad also demonstrated the use of a moisture meter and outlined its procedures for measuring moisture content. While the moisture meter specifications indicate it cannot be calibrated, Exomad plans to replace this equipment annually to maintain accuracy. **Energy Use** The auditor confirmed that electricity consumption at the Exomad Riberalta Production Facility is currently measured by a single meter, with all operations attributed to biochar production. Given Exomad's plans to expand operations, the auditor suggests installing a submeter in the future to establish a dedicated metering system specifically for biochar production. In addition, the auditor noted that fuel consumption in the LCA was based on fixed values and requested clarification on the calculations and assumptions behind these values. As a result, the following changes to fuel consumption were made: – Exomad revised the fuel consumption based on actual records in the LCA since it did not align with the total diesel consumption in the fuel records, for processes such as biomass collection and transportation, biomass pre-processing, biochar management, and transportation of biochar to the end-user. – Exomad revised the diesel estimate for biochar application to 1.73 litres per tonne of biochar, referencing the Ecoinvent database for a comparable process, "solid manure loading and spreading", in agricultural manufacturing. Subsequently, Exomad reviewed the diesel consumption and made the necessary amendments to the LCA. **These errors did impact the final number of CORCs (for details refer to Appendix B).**	Corrective Action Request 4 Recommendation 2

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

Source of Error	CORC calculation	Corrected CORC calculation	Abs. Error (CORCs)	Net Error (CORCs)	Abs. Error Rate (%)	Net Error Rate (%)
A summary of the errors identified include: - Outdated Data in LCA and CORCs Summary - Total diesel consumption in LCA did not align with the fuel records - Revised Diesel Estimate for Biochar Application - Emission Factor Error for Stack Emissions	2,426	150	150 OC	2,276	6.18%	-6.18%
Total	**2,426**	**150**	**150 OC**	**2,276**	**6.18%**	**-6.18%**

*OC = Overcalculation/UC = Undercalculation