

Baseline and Additionality Assessment

The baseline and additionality assessment is a requirement for eligibility under the Puro Standard. The assessment is made by the CO₂ Removal Supplier and verified by the independent 3rd party auditor. The assessment made in this document will be publicly available in the Puro Registry.

The Puro Standard only certifies durable carbon removals from the atmosphere that are net-negative and does not certify emissions reductions or avoidance. The CORCs (Carbon dioxide removal certificates), issued therefore represent a net carbon removal (1 tCO₂eq. net) from the atmosphere to a durable storage of minimum 100 years, from which are subtracted any supply-chain emissions from the project, any re-emissions over the guaranteed storage time, and any baseline removals taking place in a baseline scenarios.

The CO₂ Removal Supplier must in this assessment:

- **Define** and quantify all reasonable **baseline alternatives** to the proposed project activity to remove carbon with carbon financing. A baseline is a scenario that reasonably represents the natural and anthropogenic carbon removals to a permanent storage (storage durability over 100 years) in the absence of the carbon removal activity proposed by the CO₂ Removal Supplier. Although anthropogenic emissions may take place in the baseline scenarios, these emissions do not constitute a reference point for the quantification of CORCs (only the baseline removals do).
- Demonstrate **carbon additionality to the baseline**, meaning that the project must convincingly demonstrate that it is resulting to higher volumes of carbon removals than the likely baseline alternatives (question A1.).
- Demonstrate **regulatory additionality**, meaning that the project is not required by existing laws, regulations, or other binding obligations (question A2.).
- Demonstrate **financial additionality**, meaning that the CO₂ removals achieved are a result of carbon finance and that the project activity would not be economically viable without the carbon finance. The project activity can have substantial other non-carbon income sources, if the carbon finance through CORCs is significant for the economic viability of the project. To demonstrate financial additionality, CO₂ removal Supplier must provide the responses in this form and must be able to provide full project financials for verification.

Reference documents: [Puro Standard general Rules v3.0](#), rule 2.1.3 and [Additionality Assessment requirements](#)

Activity name	Activity description	Removals to storage (100+ yr) due to project activity (human activity)	Natural removals to storage (100+ yr), not man-made
Baseline: <i>Manure application</i>	<i>Manure was spread on crop land</i>	None: 2000 tons of manure per year were spread	None /
Project activity: <i>Earthcare- Riverview Farms</i>	Manure is collected from the farm, transformed into biochar onsite and applied to crop land on site and surrounding farms		None / Some (<i>please quantify</i>)
Alternative scenarios	<i>Manure would be stored</i>	None	None

A1. Does the project lead to higher volumes of carbon removal than the baseline?	Yes / No
The baseline did not lead to carbon removal	Yes

A2. Is the project required by existing laws, regulations, or other binding obligations ?	Yes / No
Transforming manure into biochar is not currently required by existing laws, regulations and/or other binding obligations	No

A3. Is the project first-of-its-kind?	Yes / No
The process is not first-of-its kind, but the project is one of the first commercially sized	No

A4. Is the project dependent on carbon finance?	Yes / No
Without carbon finance, the project can not reach profitability	Yes

A5. Does the project need a large investment to achieve carbon removal ?	Yes / No
To operate at similar size, the project does not need a large investment, only maintenance costs	No

A6. If investment is needed, is/was carbon finance considered when the investment decision is/was made?	Yes / No
During initial installation, char sales and carbon credits were included in the economics	Yes

Some projects may demonstrate additionality through simple cost analysis: this is applicable for projects where ex-ante investment analysis is not applicable, because a large investment is not needed. Example of such project could be charcoal producers starting to produce biochar for soil applications using existing equipment with minor adaptations.

Financial Additionality – large investment is not needed (Answer to A5 is "no")	Project response
Please describe adaptations needed and the related cost items and include evidence in attachment.	Project is already operational and capital expense has been made. Ongoing operational costs and increment cost are required
Please summarize the simple cost analysis here and provide additional calculation spreadsheet in attachment. All formulas used in the spreadsheet shall be readable to the verifier and all relevant cells shall be viewable and unprotected. Mark confidential when needed.	Roughly, the operational cost is close to the revenues expected if all the char produced is sold. This does not include the payback for the capital cost of the project. Assuming a reasonable price for all CORCS produced, the value of the credits will offset the capital cost and provide a marginal profit.

If large investment is needed, CO₂ Removal Suppliers can be guided by the CDM Methodological Tool 27 of the UNFCCC Clean Development Mechanism "[Investment Analysis](#)" to demonstrate financial additionality.

Financial Additionality – large investment is needed (Answer to A5 is "yes")	Project response
Please show your calculations to determine the benchmark rate for either equity IRR or WACC, whichever you are using. Please include documentation of how the rate is suitable for the technology and region.	
Please state how CORC revenues change the expected IRR or NPV of the project.	
Please conduct a sensitivity analysis in relation to the investment analysis and summarize the results here.	
Please provide full calculation spreadsheet file as an attachment. All formulas used in the spreadsheet shall be readable to the verifier and all relevant cells shall be viewable and unprotected. Mark confidential when needed.	

I hereby declare that all information provided is truthful and precise to the best of my knowledge.

X *Mark McAllister*

Date, Place: 1/3/24

Representative name, title, organization