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# Baseline and Additionality Assessment

The baseline and additionality assessment is a requirement for eligibility under the Puro Standard. The assessment is made by the CO<sub>2</sub> Removal Supplier and verified by the independent 3<sup>rd</sup> 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 tCO<sub>2</sub>eq. 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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, CO<sub>2</sub> 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)
Baseline: wood chip boiler/oil boiler	<i>The biochar boiler is used for heat demand. If you are not buying a biochar boiler you would have bought a woodchip- or oil boiler.</i>	None	None
Activity 1	<i>Install a biochar boiler for your heat demand and make sure the biochar is not burned to keep the carbon removed from the atmosphere. For example, use it as soil improvement.</i>	250 CORCs/year	None

A1. Does the project lead to higher volumes of carbon removal than the baseline?	Yes / No
Compared to burning wood chip or even worse, oil, the project leads to higher volumes of carbon removals.	Yes

A2. Is the project required by existing laws, regulations, or other binding obligations?	Yes / No
Every person is free to choose which heating system they would like to have.	No

A3. Is the project first-of-its-kind?	Yes / No
There are several biochar boilers installed before this project.	No

A4. Is the project dependent on carbon finance?	Yes / No
A biochar boiler is 3-4 times more expensive than a wood chip boiler. Oil boilers are almost free if you compare them with a biochar boiler (you can get an oil boiler for less than 5% of the price of a biochar boiler). No one would buy a biochar boiler (which also needs more operational care than wood chip and oil boilers) if they would not get additional income from carbon removals.	Yes

A5. Does the project need a large investment to achieve carbon removal?	Yes / No
Please find a separate document of the investment plan.	Yes

A6. If investment is needed, is/was carbon finance considered when the investment decision is/was made?	Yes / No
See answer A4.	Yes.

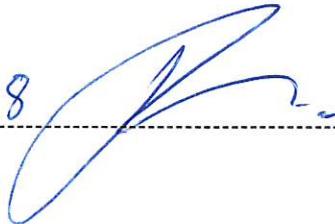
Some projects may demonstrate additionality through simple cost analysis: this is applicable for projects where ex-ante investment analysis is not applicable, because a large investment is not needed. Example of such project could be charcoal producers starting to produce biochar for soil applications 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.	Please find a separate document of the investment plan.
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.	Please find a separate document of the investment plan.

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 find a separate document of the investment plan.
Please state how CORC revenues change the expected IRR or NPV of the project.	Please find a separate document of the investment plan.
Please conduct a sensitivity analysis in relation to the investment analysis and summarize the results here.	Please find a separate document of the investment plan.
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.	Please find a separate document of the investment plan.

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

2023-10-18 

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Date, Place:

Representative name, title, organization: Richard Johansson, CEO Nuntorp Gård