RIVERSE

Methodology framework summary – GHG Reduction

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1. General overview

Riverse

Riverse is a solution aiming to foster our society's low-carbon transition to comply with the Paris Agreements.

We enable projects that have a significant impact on the reduction or capture of greenhouse gas (GHG) emissions to accelerate their deployment by financing them with certified Carbon Credits.

We also enable emitting companies wishing to contribute to collective carbon neutrality to finance virtuous projects, if possible in their sector or value chain. Emitting companies also benefit from an understandable framework and transparent communication materials, to ensure a consistent approach.

We focus our project selections on the 6 priority reduction sectors: Agriculture, Construction, Waste, Energy, Industry and Transport. Regarding the capture solutions, we focus on ambitious natural projects and relevant technological approaches.

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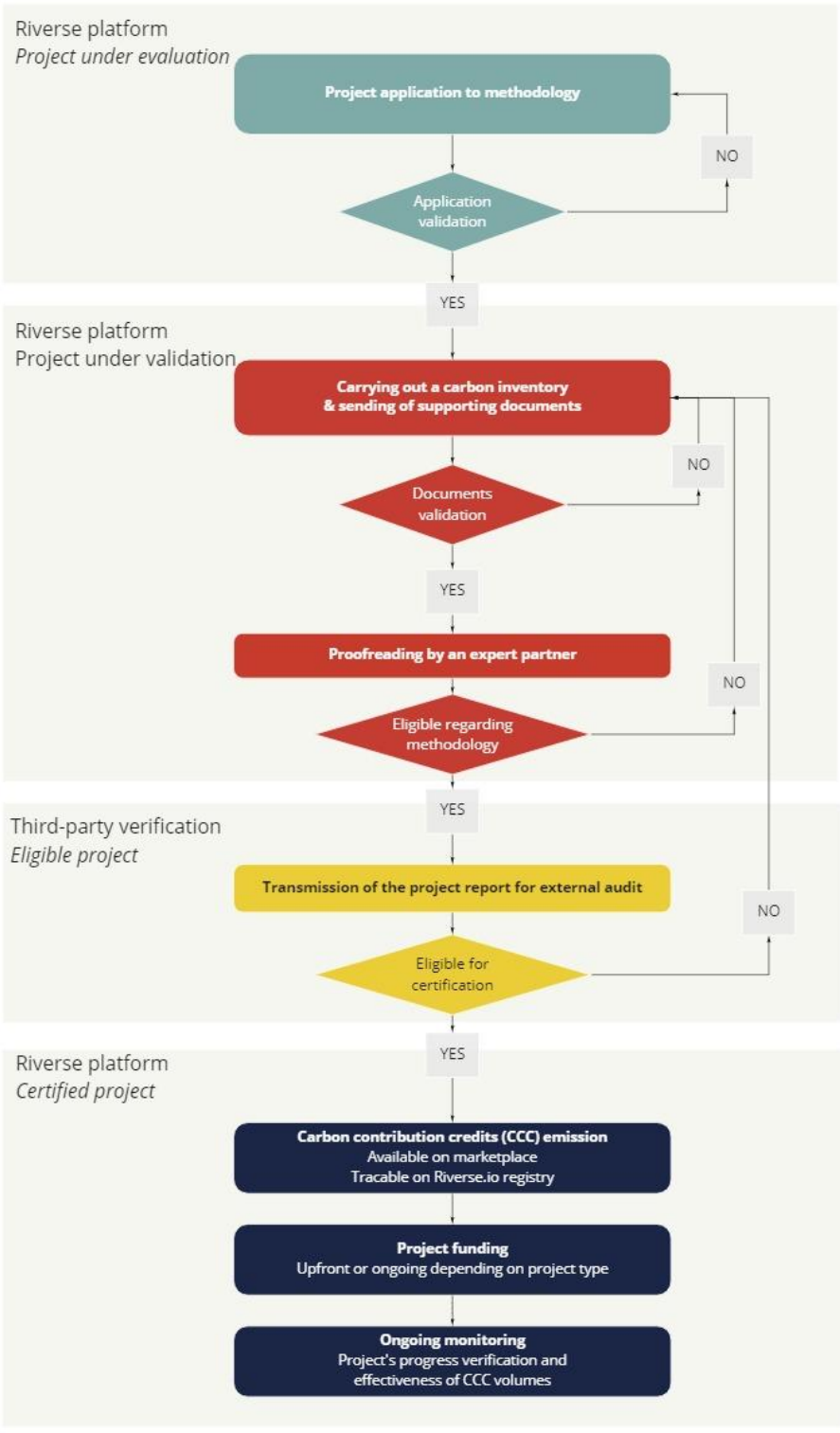
Certification process summary



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Eligibility criteria list

C1 – Additionality

To be eligible, project owner must prove a **financial additionality**, by demonstrating 1 of the 4 points below:

i. Justify a price difference between baseline and project scenarios, that prevents or significantly delays its deployment
ii. Justify administrative or technological constraints that could be overcome by additional funding
iii. Demonstrate that project's current funding does not allow for its wider deployment
iv. Demonstrate that project's current funding reduces or limits its potential impact

C2 – Co-benefits

All Riverse certified projects must have a positive systemic impact. This ensures their deployment is sustainably compatible, with quantifiable and verifiable co-benefits.
In order to be consistent with the **United Nations Sustainable Development Goals** and **European Taxonomy**, we ask for co-benefits in the following scopes: **Preservation of resources, Prevention and reduction of pollution, Socio-economic benefits, Protection and restoration of biodiversity and ecosystems, Increase of society's resilience**.

C3 – Non-permanence risk

The non-permanence risk consists of incorporating safety insurances into the emission reduction calculations and project lifetime **to prevent the CCC issued numbers exceeding the effective emission reductions.**

In the context of reduction projects, these risks are more limited and depend in particular on the 2 possible financing methods:

- **Upfront project funding**: project owner declares an estimated emissions reductions volume over its lifetime. Substantial insurances must be implemented to face project deployment risks. CCCs are issued and reduction effectiveness will be verified during project lifetime.
- **Ongoing project funding**: the project reports actual emissions reductions, year after year. This significantly reduces the non-permanence and measurement risks.

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C4 to C8 – Quantitative environmental criterias

Based on project's carbon inventory, the quantitative environmental criterias for reduction are as follows:

- C4 - Project scenario carbon inventory must induce emission reductions at least in line with the national reduction targets of the project sector over project lifetime (if relevant).
- C5 - At each stage of the process, the project scenario's consumption of non-renewable resources must remain inferior or equal to the baseline scenario.
- C6 - At each process stage, project scenario emissions shall not exceed baseline scenario's ones by more than 50%.
- C7 - The process must be powered by low-carbon energy. If fossil fuels are used, the process must demonstrate a minimum 25% efficiency GHG emissions reductions compared to baseline scenario process.
- C8 - The transportation of materials, products and waste must not result in an increase in tonne-kilometers of more than 50% compared to the baseline scenario.

C9 to C12 – Qualitative environmental criterias

Based on the presentation of the process and its deployment, the qualitative environmental criterias are as follows:

- C9 - The process must not significantly impair any of the following objectives:
    a. Sustainable use and protection of resources
    b. Pollution prevention and control
    c. Protection and restoration of biodiversity and ecosystems
    d. Transition to a circular economy
- C10 - If used raw materials contain **rare materials whose availability is not guaranteed in 2050** [1], an alternative future plan must be proposed.
- C11 - If **harmful materials are used,** the project must demonstrate the controlled use of these materials.
- C12 - The generated products or services must comply with the expected usage, and must effectively allow an **efficient substitution** compared to baseline scenario products, or to the performances presented upfront in the case of a new product.
- C13 - The main usages for generated products or services must be made explicit, and **must not be ethically or environmentally objectionable**.
- C14 - The outcome of the co-products and wastes of the project scenario must be manageable in a **sustainable way** under the current conditions; a specific treatment plan must be foreseen in case of use or co-production of harmful materials.

C15 – Carbon Contribution Credits Unicity

Any project wishing to have its GHG emission reductions certified using this methodology, as part of a carbon credit financing scheme, must contractually undertake not to use another certification body or label for the said project.

Carbon inventory

The carbon inventories carried out for baseline and project scenarios must meet the GHG Protocol standards: Project Protocol, Scope 2 Guidance et Corporate Value Chain Standard. In line with these tools, the ones suggested by other local references (like ADEME or Association Bilan Carbone in France) will also be considered valid.

All input, product, co-product and process emission factors shall be coming from a reference carbon standard. Any alternative calculation assumptions should be supported by a peer-reviewed paper.

The carbon inventory shall specify:

- Process functionalities
- Project boundaries
- Comparable functional unit in the baseline and project scenarios
- Baseline scenario choice and its carbon inventory
- Project scenario carbon inventory

Supporting documents

Riverse must validate that the project meets all of the CCC requirements, and that its responses are documented accordingly, in order to emit CCC for the related project.

Notes:

- *The same document can verify several criterias. In that case, just specify the document part providing the answer.*
- *A document can be produced by the project owner, by a third party, or through a detailed explanation.*
- *Once reviewed by Riverse, and a dedicated expert if necessary, the file is submitted to an independent third party to finalize project certification.*

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Project description	Verification
Project and process description	Project presentation
Unicity	Contractualization on the carbon credits registration into Riverse Registry

Standard carbon credit criterias	Verification
Additionality	• Financial additionality evidence • List of available and received subsidies
Permanence	• Project permanence evidence • Project financing plan • Project development plan
Co-benefits	Project co-benefits list and evidences

Quantitative environmental criterias	Verification
Measurability	• Carbon inventory with data and references • Estimated functional unit volumes per year evidence • Project lifetime evidence
Project scenario carbon inventory must induce emission reductions at least in line with the national reduction targets of the project sector over project lifetime.	• Project scenario carbon inventory • Baseline scenario carbon inventory
At each stage of the process, the project scenario's consumption of non-renewable resources must remain inferior or equal to the baseline scenario.	• Non-renewable resources in project scenario • Non-renewable resources in baseline scenario
At each process stage, project scenario emissions shall not exceed baseline scenario's ones by more than 50%.	• Project scenario carbon inventory by stage • Baseline scenario carbon inventory by stage
The process must be powered by low-carbon energy. If fossil fuels are used, the process must demonstrate a minimum 25% efficiency GHG emissions reductions compared to baseline scenario process.	• Project scenario energies evidence • Baseline scenario energies evidence
The transportation of materials, products and waste must not result in an increase in tonne-kilometers of more than 50% compared to the baseline scenario.	• Project scenario transport evidence (ton.km) • Baseline scenario transport evidence (ton.km)

Qualitative environmental criterias	Verification
The process must not involve major negative externalities for the environment.	Explanations of non-hazardousness regarding environmental areas of concern
If harmful materials are used, the project must demonstrate the controlled use of these materials.	• Quantities of rare materials • Documents explaining the use of these materials and presenting future alternatives
If harmful materials are used, the project must demonstrate the controlled use of these materials.	• Quantity of harmful materials used • Documents explaining the use of these materials and presenting future alternatives • Documents explaining their control (prevention plan)
The generated products or services must comply with the expected usage, and must effectively allow an efficient substitution compared to baseline scenario products, or to the performances presented upfront in the case of a new product.	Explanations of generated products or services usages
The main usages for generated products or services must be made explicit, and must not be ethically or environmentally objectionable.	Explanations of generated products or services usages
The outcome of the co-products and wastes of the project scenario must be manageable in a sustainable way under the current conditions; a specific treatment plan must be foreseen in case of use or co-production of harmful materials.	• Justification of the co-products and waste generated • Justification of the treatment methods for each co-product and waste

GHG storage criterias (optional)	Vérification
The storage lifetime for each storage scenario must be justified in a relevant manner	Project storage scenarios evidence
Storage lifetime guarantee means must be explained	Project storage lifetime guarantee evidence