

puro

**Review of
international
offsets**

**for
Climate Change
Authority, Australia**

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About Puro.earth

Puro.earth is the world's first B2B Standard and Registry focused solely on carbon removal. Aiming at climate and economic impact, our mission is to mobilize the world's economy to reward carbon net-negative emissions.

We provide voluntary corporate buyers long-term carbon removal procurement portfolios to fulfill net zero pledges, by identifying suppliers, verifying their negative emissions and issuing CO₂ Removal Certificates (CORCs) with the Puro Standard, the first carbon standard for engineered carbon removal.

Trusted by leading organizations, Puro.earth is driving forward a market of carbon negative industries, enabling a new revenue stream for carbon removal suppliers to accelerate their growth. In 2021, Nasdaq acquired a majority stake in Puro.earth.

Visit us at <https://puro.earth> or on LinkedIn Puro.earth and Twitter @PuroCO2Removal

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Puro Standard and integrity principles of Climate Active in Australia

Climate Active Carbon Neutral standard

The standard currently uses the integrity principles listed below as a guide for determining which offsets are eligible for use under the program.

- **Additional:** it must result in emissions reductions that are unlikely to occur in the ordinary course of events, including due to any existing commitment or target publicly agreed by the entity responsible for issuing the units. It must represent abatement that has not been double counted.
- **Permanent:** it must represent permanent reductions in greenhouse gas emissions. In the case of sinks, this requires that the carbon stored is sequestered and will not be released into the atmosphere for a period of 100 years. Where a period of less than 100 years is applied to sequestration units, an appropriate discount must be applied.
- **Measurable:** methods used to quantify the amount of emissions reductions generated must be supported by clear and convincing evidence.
- **Transparent:** consumers and other interested stakeholders must have access to information about the offset project that generated the abatement, including the applied methodology and project-monitoring arrangements.
- **Address leakage:** the system responsible for generating the offset unit must provide deductions for any material increases in emissions elsewhere which nullify or reduce the abatement that would otherwise be represented by the offset unit.
- **Independently audited:** the circumstances responsible for the generation of the unit must be verified by an independent, appropriately qualified third party and not found to be in contradiction with these integrity principles.
- **Registered:** the offset unit must be listed and tracked in a publicly transparent registry.

Puro.earth is a pioneering Standard and Registry for Carbon Removals. We have since 2019 issued CO₂ Removal Certificates, CORCs, to CO₂ net-negative project in Australia and internationally.

Puro carbon removal crediting is addressing Climate Active integrity principles with the following means:

1. Registered – All carbon removal project are listed and all credits (CORCs) are registered and managed throughout their life-cycle in a digital system. The registry is publicly available [here](#) and all issuances and retirements can be found there.

2. **Independently Audited** – Carbon removal projects are audited once a year by independent 3rd party verifiers. Currently the audits have been performed by [DNV](#), [bio.Inspecta](#) and [Energy Link Services](#). As the number of projects increases rapidly, more verifiers will be added.
3. **Transparent** - The carbon removal project listings are available in the [Puro.earth platform](#) here and can be viewed by consumers and other stakeholders. Currently the available methodologies are CO₂ removals and durable storage in biochar, geologically stored carbon, biomass-based building materials and carbonated materials. Puro Standard [general rules are public](#) and set uniform, common criteria for any type of CO₂ removal methods, whether resulting from CO₂-mineralization or CO₂-injection or C-thermochemical conversion or something other way of storing carbon durably. The specific requirements for each different methodology are available [here](#). Puro.earth offer also transparency to the carbon removal prices by publishing CORC price index on a monthly basis [here](#).
4. **Measurable** – Puro standard focuses on carbon removal, capture and storage in methodologies in mainly engineered methodologies. Projects specific measurements are essential in quantification and verification on the number of CORCs to be issued. Measurements in engineered removals are more straight forward than measuring carbon stocks and carbon flows in dynamic living ecosystems in nature. In Puro Standard a CORC represents one ton of CO₂ removed and stored CO₂ net of all emissions from the project. The stored carbon volume is measured as carbon content or injection flow. The Upstream and downstream greenhouse gas emissions, associated with the removal and storage process, are comprehensively estimated and included in the emission balance (LCA).
5. **Permanent** – Permanence is the key attribute in Puro Standard. It is becoming mainstream to categorize carbon storages to permanent, sub-permanent and temporary, where permanent is the result of mineralization or geological storage with time-span for thousands of years. Sub-permanent category start at minimum 100 years of durability and temporary is anything below 100 years. Puro Standard recognizes the permanence factor in the quantification, and most methodologies offer the over 100 years durability, with carbonated material and BECCS/DACS reaching to 10,000 years. The biomass-based materials have at minimum 50 years durability.
6. **Additional** – The project credited CO₂ Removal Supplier shall be able to demonstrate additionality, meaning that the project must convincingly demonstrate that the CO₂ removals are a result of carbon finance. Even with substantial non-carbon finance support, projects can be additional if investment is required, risk is present, and/or human capital must be developed. To demonstrate additionality, CO₂ Removal Supplier must provide full project financials and counterfactual analysis based on Baselines that shall be project-specific, conservative and periodically updated. Suppliers shall also show that the project is not required by existing laws, regulations, or other binding obligations.
7. **Addressing Leakage*** - The projects credited by Puro Standard capture carbon, make it inert and place it in a storage for a long time.

The potential for leakage is assessed by the CO₂ Removal project determining a scale of likely impact. For instance, if not used for carbon removal, the waste biomass has been used for bioenergy production displacing other energy carriers and what is the likely substitute for that energy in the new scenario. When land use is changed due to

the CO₂ removal project the change in aboveground carbon stocks, soil carbon stocks, and greenhouse gas emissions must be assessed by the project, relative to a reference land use.

For CO₂ removal certificates, only leakage (increased emissions) is deducted from the amount of carbon sequestered, while any "negative" leakage (reduced emissions) is considered as a co-benefit but does not change the amount of CORCs issued or carbon sequestered by the project considered.

Links

1. [Registry](#)
2. [General Rules](#)
3. [Methodologies](#)
4. [Projects listings](#)
5. [CORC Price index](#)
6. [Links to Verifiers](#)



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