



RADICLE

Carbon Offset Lifecycle

Offsetting emissions through voluntary carbon credits helps business leaders meet increasingly ambitious climate commitments. But how are carbon credits* created and how do they reduce global emissions?

Creating Carbon Offsets for Voluntary Markets

Voluntary markets enable organizations to finance positive change by selling carbon credits generated from greenhouse gas emissions reductions and removals. When a company wants to offset their carbon footprint, they can purchase these credits or generate credits through a carbon project development. Not all offsets are created using the same level of robust quality controls and risk management frameworks. This is why it's important to work with an experienced offset development team. At Radicle, we're here to help you navigate the complexities of offset creation and market participation.

Our team will guide you through the process of finding balance through profitable, consistent, and impactful reductions. Here is the process by which carbon credits are created.

1 Project Idea Note

An organization has an idea to prevent or remove GHG emissions or protect a threatened environmental asset that stores or removes carbon using an approved protocol. They create a project idea note that outlines the project methodology and a basic project plan, including a feasibility study, potential project impacts and risks, and a stakeholder engagement strategy.

Outcome: A framework for the project to ensure it meets basic requirements.

2 Project Design

In designing the project, the developer outlines a baseline and monitoring methodology, estimates GHG reductions, and plans for quantifying and monitoring the delivery of climate and other environmental and social benefits. Developers must also demonstrate that project activities exceed the "business-as-usual" case as evidence for additionality*.

3 Validation

The project design is audited and validated by reputable, independent third parties to ensure it meets the appropriate rules and requirements under the applied methodology. This independent assessment is critical to ensuring the integrity of the project. Project activities can now begin. For example, new equipment is installed, trees are protected or planted, or renewables are used in place of fossil fuels.

Outcome: Project is validated by a third-party verifier and project activities begin.

4 Verification

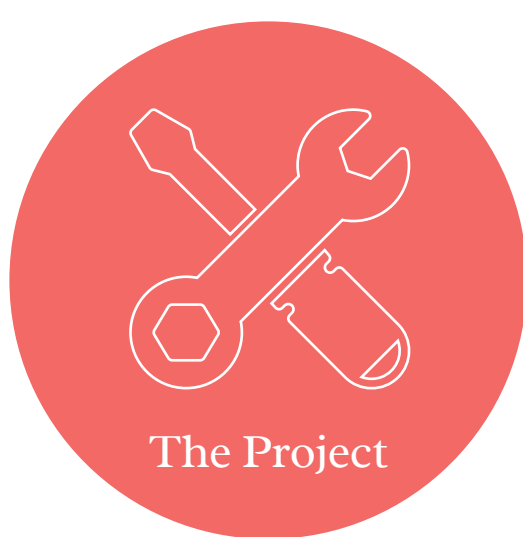
After the project is implemented and monitored over a prescribed period as outlined in the methodology, it goes through a third-party verification process. In this additional audit, the project impact is assessed and the delivery of the GHG reductions are verified.

Outcome: Project is operational and being monitored, with its GHG reductions calculated and verified by a qualified third-party.

5 Issuance

Once all previous steps are completed, the registry can issue offsets. Credits (offsets) are verified and regularly issued until the end of the project's life.

Outcome: Credits are issued under a recognized standard* and are recorded on a public registry*.



The Co-Benefits

Co-benefits* reflect a project's positive change beyond GHG reduction.

They can include:

- Biodiversity
- Local Employment
- Renewable Energy
- Culture Protection
- Health
- Skills Training
- Investment in New Tech
- Pollution Mitigation
- Social Integrity

Carbon Credits Listed on a Public Registry

Registries enable the transparent listing and transfer of credits. Credible registries only list credits certified to a rigorous standard.

6 Credits on Market

Each credit on a public registry has a unique serial number. Businesses can work with companies like Radicle to buy credits that meet their needs. Once a credit is purchased, it is permanently retired or transferred to ensure that there is no double counting.

Outcome: Buyers can confidently purchase offset credits transparently and securely through companies like Radicle.



Organization Purchases Credits

Purchasing offsets help companies meet their emission reduction targets and support projects that create planet-positive changes.

7 Buyer Purchases Credits

Once an offset is issued, it is given a unique serial number. Businesses can work with reputable companies like Radicle to buy credits that meet their needs.

Outcome: Once a credit is purchased, it is permanently retired or transferred to ensure that there is no double counting and that a credit can only ever be used once.



Benefits of Buying Offsets

There are many environmental, social, and economic benefits that come with purchasing carbon credits.

They can include:

- Accelerate Reductions
- Better Manage Risk
- Create Goodwill
- Fulfill Supplier Needs
- Strengthen Social License
- Support ESG Strategy
- Hedge against increasing carbon emissions and pricing costs

Key Concepts

Additionality

To count as an offset, a project must prove that GHG reductions would not have taken place without the project. If reductions would have happened anyway, regardless of the project, no offset has taken place, and no carbon credits can be generated.

Carbon Credit or Carbon Offset

A carbon credit is a form of environmental commodity that derives its value from one tonne of CO₂ or equivalent GHG removed from or captured before entering the air.

Carbon Standard

A carbon standard is a technical standard and certification process for carbon credits, ensuring a credit is legitimate. Make sure you buy credits from a reputable seller, and that those credits have been verified to a reputable standard.

Public Registry

Carbon offset registries track offset projects and issue offset credits for each unit of emission reduction or removal that is verified and certified. Registries are vital in creating a credible, fungible offset commodity.

Co-Benefits

Co-benefits are additional attributes that carbon offset projects create. Examples include local employment to execute a project and maintain its operations or protecting biodiversity and cultural diversity.

What Next?

Still have questions or looking to enter the market? Reach out.

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Radicle exists to guide today's progressive companies towards tomorrow's sustainable future.



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