

What Makes a High-Quality Carbon Credit



How to evaluate carbon credits using global integrity benchmarks and criteria from ICVCM, VCMI, and RMI

Not all carbon credits are created equal. For buyers and sellers alike, ensuring credit quality is essential for climate impact, market trust, and brand credibility. A **high-quality carbon credit** is one that represents a **real, additional, measurable, and permanent** reduction or removal of greenhouse gases. This article breaks down the key attributes of carbon credit quality, aligned with leading global frameworks including the **Integrity Council for the Voluntary Carbon Market (ICVCM)**, the **Voluntary Carbon Markets Integrity Initiative (VCMI)**, and the **Rocky Mountain Institute (RMI)**.

Ensuring Additionality: Real Emission Reductions

Definition: The emission reduction or removal would not have happened without the revenue from carbon credits.

Why it's Important: If a project was going to happen anyway (due to regulation or profitability), the credits don't represent real climate benefits. True additionality ensures buyers are paying for genuine climate action.

What to Look For:

- Independent baseline assessments
- Transparent financial analysis
- Avoidance of "free riders" (e.g., renewable energy projects in highly profitable regions)

Framework Alignment:

- **ICVCM Core Carbon Principles:** Requires financial and regulatory additionality
 - **RMI Credit Integrity Protocol:** Flags low-additionality project types
 - **VCMI Guidance:** Recommends buyer due diligence on credit additionality
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Guaranteeing Permanence: Long-Term Carbon Storage



Definition: The carbon benefit must endure for the long term (typically 100+ years).

Why It Matters: If CO₂ is removed today but re-emitted tomorrow (e.g., due to forest fires), the benefit is nullified. High-quality credits have **low reversal risk** and long-term storage mechanisms.

What to Look For:

- Permanence plans for land-based projects (fire, pests, legal protections)
- Buffer pools or insurance mechanisms
- Preference for technologies with physical storage (e.g., DAC with mineralization)

Framework Alignment:

- **ICVCM:** Requires clearly defined permanence periods and risk mitigation
- **RMI:** Evaluates project permanence and risk-adjusted scoring
- **VCMI:** Requires buyers to publicly disclose permanence attributes

Measurability & Verification: Trusted Data and MRV Systems

Definition: The carbon benefit must be **quantified** using recognized methodologies and **verified** by an independent third party.

Why It Matters: Carbon credits are only as good as the data backing them. Strong measurability ensures credits reflect real tonnes of CO₂ reduced or removed.

What to Look For:

- Registry-backed methodologies (e.g. Gold Standard, Verra, Puro.earth)
- Third-party validation and verification reports (VVBs)
- Digital MRV (Monitoring, Reporting, Verification) or satellite evidence

Framework Alignment:

- **ICVCM:** Credits must be tracked in transparent registries with independent MRV
- **VCMI:** Supports disclosures of MRV approach by credit type
- **RMI:** Warns against “uncertain” credit outcomes from poor MRV practices

Maximizing Co-Benefits: Social, Economic, and Ecological Impact



Definition: Positive social, environmental, or economic impacts delivered alongside carbon reduction.

Why It Matters: High-quality projects not only reduce emissions—they also **improve lives** and protect ecosystems, making them more attractive to buyers with ESG priorities.

What to Look For:

- UN Sustainable Development Goal (SDG) alignment
- Verified co-benefit certifications (e.g., CCB Standards, SD VISta)
- Transparent community consultation processes

Framework Alignment:

- **VCMI:** Encourages use of high-impact credits with SDG-linked co-benefits
 - **RMI:** Prioritizes credits with strong social/environmental value
 - **ICVCM:** Co-benefits not mandatory, but emphasized as part of project transparency
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ICVCM Core Carbon Principles: Global Integrity Benchmark

The **ICVCM's Core Carbon Principles (CCPs)** represent the emerging global gold standard for credit integrity. CCP-aligned credits must meet rigorous thresholds across:

- **Robust quantification**
- **Sustainable development impact**
- **Registry transparency**
- **Safeguards and stakeholder engagement**
- **No double counting**

The **VCMI Claims Code of Practice** then builds on this by outlining how buyers can credibly use and communicate their carbon credit purchases.

Summary Table

Attribute	Importance	What to Look For	Frameworks Referenced
Additionality	Ensures real climate impact	Financial analysis, regulatory review	ICVCM, RMI, VCMi
Permanence	Long-term storage integrity	Buffer pools, permanence plans, technology type	ICVCM, RMI, VCMi
Measurability	Credible, verifiable outcomes	Third-party MRV, registry presence	ICVCM, RMI, VCMi
Co-Benefits	ESG value and stakeholder appeal	SDG alignment, social impact metrics	VCMi, RMI, ICVCM

Buyers and sellers committed to climate integrity should **prioritize credits that meet or exceed ICVCM’s Core Carbon Principles**, are transparently disclosed under VCMi, and pass the rigor of independent due diligence. Green Carbon Corp supports clients in evaluating, sourcing, and structuring high-quality carbon credit portfolios that withstand scrutiny and deliver verified impact.

1. Credit Type Comparison: Avoidance vs. Removal

Type	Description	Examples	Buyer Use Case
Avoidance	Prevents emissions from occurring	REDD+, clean cookstoves	Offset Scope 1/2/3 emissions now
Removal	Physically takes CO ₂ from atmosphere	Reforestation, DAC	Long-term net zero strategies

Removal credits are increasingly favored by regulators and the Science Based Targets initiative (SBTi) for post-2030 decarbonization targets.

Common Buyer Pitfalls to Avoid

Top pitfalls:

- Purchasing low-additionality credits without due diligence

- Failing to map credits to climate targets
- Overreliance on brokers without verifying project origin
- Making public claims without proper VCMI alignment
- Assuming price = quality (some \$30 credits underperform \$7 ones)

Checklist: How to Vet a Carbon Credit Project



Sample checklist items:

- Is the project listed on a recognized registry?
- Is it validated by a third party (VVB)?
- Is there a robust MRV framework?
- Are co-benefits documented with SDG alignment?
- Does it pass ICVCM Core Carbon Principles?

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4. What to Ask a Seller or Broker Before Buying

Example questions:

- Can you share the Project Design Document (PDD)?
- What methodology is being used, and why?
- Are any credits held in buffer or insurance pools?
- What is the vintage and how long is the permanence guarantee?
- Can I see third-party validation/verification reports?
- **Why?: Empowers** buyers to make better decisions and reduces risk of **greenwashing.**

Top Standards & Registries Snapshot

Registry	Focus	Notes
Verra (VCS)	Voluntary markets, nature and tech projects	Most widely used
Gold Standard	Sustainable development	Strong on co-benefits

	projects	
Puro.earth	Carbon removals only	Industrial tech bias
ACR / CAR	US markets	Compliance-aligned
Plan Vivo	Community-based forestry/agriculture	Ideal for SDG-conscious buyers

Sample Project Analysis: High vs. Low Integrity

- Additionality
- Permanence
- Co-benefits
- Price per tonne
- Buyer suitability

Considerations for Article 6 of the Paris Agreement

For multinational buyers, carbon credit alignment with Article 6 of the Paris Agreement is increasingly relevant. Projects authorized under Article 6.2 or 6.4 mechanisms can enhance claim legitimacy, particularly in compliance or bilateral offset programs.

Understanding ICVCM Evaluation Categories

The Integrity Council for the Voluntary Carbon Market (ICVCM) evaluates carbon credits using several integrity criteria:

- Additionality: Financial and policy-based testing
- Robust Quantification: Measurement reliability and uncertainty
- Sustainable Development: Alignment with SDGs and local impact
- Registry Transparency: Public traceability and no double counting
- Safeguards: Social, environmental protections and grievance access

Risk of Stranded Carbon Assets

As integrity frameworks become mandatory in buyer procurement policies, carbon credits lacking robust verification or permanence safeguards may lose value. Such credits risk becoming 'stranded assets'—unsellable due to failing regulatory, ESG, or reputational scrutiny.

Why Partner with Green Carbon Corp

Green Carbon Corp supports organizations in sourcing, structuring, and verifying carbon credits that meet the highest global standards. From procurement strategy to off-take agreements and impact reporting, we guide clients through every stage of the carbon market.

References

Insert hyperlinks to all below

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