

February 16, 2024

Rostin Behnam  
Chairman  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21st Street, NW  
Washington, DC 20581

Dear Chairman Behnam and fellow Commissioners,

Thank you for the opportunity to comment on the Guidance Regarding the Listing of Voluntary Carbon Credit Derivative Contracts proposed by the Commodity Futures Trading Commission (CFTC). My firm, Carbon Direct Inc. (Carbon Direct), helps organizations go from climate goal to climate action. Carbon Direct is a science-first organization that combines technology with deep expertise in climate science, data, and policy. We deliver actionable climate strategies and high-quality carbon dioxide removal (CDR) to decarbonize the global economy. Carbon Direct has built a reputation as a trusted arbiter of high-quality strategy for carbon reduction, removal, and utilization throughout value chains, working with leading organizations. Our team of over 40 scientists includes thought leaders who actively contribute to the science of climate mitigation with novel assessment methodologies, providing public resources to facilitate action.

Carbon Direct has applied its expertise to the completion of:

- Over 600 engineered, hybrid, and nature-based carbon credit project assessments, deep diligences for multi-year off-take agreements, and project co-design engagements;
- Over 150 unique emerging technology diligence reviews; and
- Deep technical diligence and de-risking engagements in improved forest management, reforestation, BECCS, and DAC, with commercial strategy support in collaboration with carbon credit developers to ensure that their products are best-in-class.

Over the past several years, we have observed a critical challenge in the emerging CDR industry. While there are many CDR projects on the market, few meet our criteria for high quality largely because CDR project developers and purchasers lack a common framework for identifying best-in-class projects.

In our comments, we share Carbon Direct's best practice principles, which were developed in cooperation with Microsoft. These are derived from actual market examples and are published in our most recent edition of the [Criteria for High-Quality Carbon Dioxide Removal](#). Our comments are in response to specific questions listed in the CFTC's proposed guidance, as follows:

**“Question 1. In addition to the VCC commodity characteristics identified in this proposed guidance, are there other characteristics informing the integrity of carbon credits that are relevant to the listing of VCC derivative contracts? Are there VCC commodity characteristics identified in this proposed guidance that are not relevant to the listing of VCC derivative contracts, and if so, why not?”**

The voluntary carbon credit (VCC) commodity characteristics identified in the CFTC’s proposed guidance largely overlap with Carbon Direct’s *Criteria for High-Quality Carbon Dioxide Removal*. We are pleased to see the inclusion of characteristics such as transparency, additionality, permanence and risk of reversal, and robust quantification. We suggest expanding these characteristics to incorporate others we consider essential to evaluating the quality of a VCC. These additional criteria include harms and benefits, environmental justice, and economic leakage, as defined below.

- **Harms, benefits, and environmental justice**
  - Minimizing harms involves avoiding negative impacts on economic, social, and environmental systems that result from CDR projects.
  - Beyond avoiding harm, projects can maximize benefits to local communities and ecosystems by advancing environmental justice, building climate resilience, supporting alternative livelihoods, and protecting ecosystems and biodiversity.
  - Environmental justice involves equitable distribution of environmental benefits and harms resulting from CDR project development, implementation, and ongoing monitoring, reporting, and verification (MRV). Environmentally-just CDR projects empower local communities by facilitating meaningful participation throughout the CDR project lifecycle. Inclusive, accessible, and authentic community engagement includes centering perspectives from vulnerable or marginalized community members. This collaboration and/or shared project leadership starts by acknowledging past and present harms to communities of color, low-income communities, and other vulnerable communities affected by intersecting climate and racial injustice crises.
  
- **Economic leakage**
  - Economic leakage (“leakage”) is the displacement of greenhouse gas (GHG) emissions from the project site to another geographic location. Economic leakage typically occurs because market demand for the output of the emitting activity is unchanged, while the CDR project decreases local supply. See our comments, below, in response to Question 9.
  - There are two forms of economic leakage: activity-shifting and market. Activity-shifting leakage occurs when agents operating within a project boundary shift production outside the project boundary. Market leakage occurs when a project reduces the production of a good, and this local reduction induces increased production of that good elsewhere to meet demand. Market leakage can be very difficult to predict and measure.

**“Question 7. Are there particular criteria or factors that DCMs should take into account when considering, and/or addressing in a VCC derivative contract’s terms and conditions, whether the procedures that a crediting program has in place to assess or test for additionality provide a reasonable assurance that GHG emission reductions or removals will be credited only if they are additional?”**

Carbon Direct believes that additionality is a cornerstone of a quality project and resulting credits. In our *Criteria for High-Quality Carbon Dioxide Removal*, we lay out our definition of additionality. VCCs are additional if they would not have occurred without carbon finance. The baseline of a project is a conservative estimate of the carbon dioxide emissions and other GHG impacts that would have occurred without carbon finance. This baseline scenario is also referred to as the “counterfactual.”

Carbon Direct believes that all project developers must:

- Show that they require carbon finance to implement the project.
  - When there are multiple finance streams supporting a project, projects are considered additional if revenue from the sale of carbon credits is required to initiate project activities.
- Show that the project is not required by existing laws, regulations, or other binding obligations.
- Show that project activities are not “common practice,” even in the absence of financial or regulatory incentives.
- Quantify the credits claimed relative to the most plausible baseline for carbon stocks and flows, *i.e.*, the counterfactual in the absence of carbon finance.
  - Baselines must account for both recent and projected changes in carbon and other GHG stocks and flows.
  - Baselines must be conservative and site specific.

Where possible, Carbon Direct believes project developers should:

- Make available full project financial information to demonstrate financial additionality, particularly where multiple revenue streams are present.

**“Question 8. In this proposed guidance, the Commission recognizes VCCs as additional where they are credited for projects or activities that would not have been developed and implemented in the absence of the added monetary incentive created by the revenue from carbon credits. Is this the appropriate way to characterize additionality for the purposes of this guidance, or would another characterization be more appropriate? For example, should additionality be recognized as the reduction or removal of GHG emissions resulting from projects or activities that are not already required by law, regulation, or any other legally binding mandate applicable in the project’s or activity’s jurisdiction?”**

In addition to the comments provided above, in response to Question 7, Carbon Direct reiterates our belief that VCCs are only additional if they would not have

occurred without carbon finance. We do not believe that a project that is required by existing laws, regulations, or other binding obligations is additional, but regulatory additionality alone is an incomplete definition of additionality.

**“Question 9. Are there particular criteria or factors that DCMs should take into account when considering, and/or addressing in a VCC derivative contract’s terms and conditions, a crediting program’s measures to avoid or mitigate the risk of reversal, particularly where the underlying VCC is sourced from nature-based projects or activities such as agriculture, forestry or other land use initiatives?”**

Carbon Direct believes that durability is a key principle for evaluating the quality of VCCs. Durability is the capacity for stored carbon to withstand reversal, or re-emission, to the atmosphere. We use the term “durability” because it is less absolute than “permanence” and acknowledges the temporal variability inherent to most forms of carbon storage. The durability of stored carbon is limited by both natural and anthropogenic risks of reversal, which can prematurely release carbon from storage. Reversals can be either intentional (*e.g.*, changing management practices) or unintentional (*e.g.*, natural disturbances). Longer and more durable storage terms are preferable (until widely accepted methods enable comparison of varied durability terms).

Carbon Direct believes that all developers must:

- Provide a projected duration (in years) over which removed carbon will be stored.
- Implement an MRV plan to monitor the stored carbon and reliably detect reversal events.
- Conservatively estimate a project’s risk of reversal using the best available science, including planning for present and future climate change.
- Identify who is liable for remediating the reversal of stored carbon and the length of this liability (*e.g.*, number of years).

Where possible, we believe project developers should:

- Site projects in areas with low risk of reversal and implement ongoing risk mitigation measures to minimize the impact of future reversal events, including future risks associated with climate change.
- Ensure that agreements during project execution include measures that mitigate the risk of reversals throughout and beyond the project operational lifetime.
- Rely on insurance-type products, such as a buffer pool, to address the risk of reversal, which:
  - Reflect a scientifically substantiated, conservative risk of reversal, including possible increases in risks associated with climate change.
  - Dictate that intentional reversals must be entirely remediated, even exceeding all buffer pool contributions from the project.
  - Retire a project’s buffer pool credit contributions at the end of the project’s life.

For nature-based projects or activities such as forestation and agroforestry, we believe that all project developers must:

- Take active and ongoing measures to mitigate identified risks (*e.g.*, forest thinning in fire-prone areas).

For nature-based projects or activities such as forestation and agroforestry, where possible, we believe project developers should:

- Use the best available information to forecast future risks of disturbance to planted forests and situate projects in areas of lower risk. Salient disturbance risks include, but are not limited to, direct and indirect impacts of climate change, drought, fire, insects, disease, financial insolvency of the project operator, land theft, timber theft, and social disturbances.
- Use resilient plant material with appropriate genetic variability and provenance.
- Where appropriate, select species adapted to future climate conditions and apply planting patterns that foster resistance to disturbance.
- Incorporate harvested timber or biomass into long-lived wood products, either traditional (*e.g.*, lumber, oriented strand board) or emerging (*e.g.*, biochar, cross-laminated timber).
- Encourage additional productive uses of land such as beekeeping, sustainable wood production, and ecotourism to ensure that forests are protected and maintained over time.
- Leverage early-warning systems to detect and respond to reversals, particularly wildfire.

In addition, for agriculture and soil carbon projects, we believe all project developers must:

- Provide a durability term supported by a detailed monitoring and verification plan. The plan should monitor changes in management practices and subsequent reversals across the entire project area.
- Account for verification methods and contracting mechanisms for ensuring new practices are implemented and maintained when determining durability.
- Demonstrate robust strategies for ensuring carbon remains sequestered, even in instances of ownership changes or extreme weather events.

**“Question 10. How should DCMs treat contracts where the underlying VCC relates to a project or activity whose underlying GHG emission reductions or removals are subject to reversal? Are there terms, conditions or other rules that a DCM should consider including in a VCC derivative contract in order to account for the risk of reversal?”**

Carbon Direct believes that it is important to take the risk of reversal into account. As mentioned in our comments in response to Question 9, above, we use the term “durability” because it is less absolute than “permanence” and acknowledges the temporal variability inherent to most forms of carbon storage. We believe that there are strategies that can be employed to address these shortcomings, but even those are limited.

Where possible, we believe project developers should:

- Provide a projected duration (in years) over which removed carbon will be stored.
- Implement an MRV plan to monitor the stored carbon and reliably detect reversal events.
- Conservatively estimate a project's risk of reversal using the best available science, including planning for present and future climate change.
- Identify who is liable for remediating the reversal of stored carbon and the length of this liability (*e.g.*, number of years).
- Rely on insurance-type products, such as a buffer pool, to address the risk of reversal, which:
  - Reflect a scientifically substantiated, conservative risk of reversal, including possible increases in risks associated with climate change.
  - Dictate that intentional reversals must be entirely remediated, even exceeding all buffer pool contributions from the project.
  - Retire a project's buffer pool credit contributions at the end of the project's life.

**“Question 11. Are there particular criteria or factors that a DCM should take into account when considering, and/or addressing in a contract's terms and conditions, whether a crediting program applies a quantification methodology or protocol for calculating the level of GHG reductions or removals associated with credited projects or activities that is robust, conservative and transparent?”**

Carbon Direct believes there are several factors to take into account when considering whether a project's carbon accounting and MRV protocols are sufficiently robust, conservative, and transparent.

Project-level carbon accounting reports all GHG associated with a CDR project using repeatable and verifiable GHG quantification methods. In general, this requires the use of cradle-to-grave life cycle assessments (LCAs) and/or models that accurately estimate CDR, calibrated by periodic direct measurement.

Monitoring, reporting, and verification involve developing and adhering to a plan for long-term monitoring of the project. Carbon accounting and MRV are often closely linked. Developers should consider the interactions between these two criteria during project planning and execution.

Carbon Direct believes that project developers must:

- Develop a credible MRV plan prior to the start of the project.
- Adapt the MRV plan throughout the project by incorporating the best available science and evolving industry practices.
- Use peer-reviewed and scientifically supported carbon accounting methods to quantify the net volume of credits claimed, and disclose the specific methods used.
- Where an LCA is provided, use a cradle-to-grave LCA and specify the use of either attributional or consequential LCA.

- Incorporate uncertainty conservatively to avoid overstating the estimated CDR from a project.
- Separately quantify removed, reduced, and avoided emissions, including delineating by greenhouse gas type
- If applicable, use models that are calibrated and validated for the specific conditions in which the project will operate.
- If applicable, specify model assumptions that cannot be calibrated or revised due to practice constraints. Developers should periodically review MRV measurements and other scientific advancements to revise all other assumptions.

Where possible, we believe project developers should:

- Use regionally appropriate sampling and data collection methods to quantify emissions and removals associated with a project instead of solely model-based or statistical methods.
- Ensure that the project's MRV plan is certified or endorsed by a third party (*e.g.*, via a registry)
- Obtain third-party verification of calculated net removal volumes (*e.g.*, via a registry)
- Directly measure carbon removed and stored throughout the duration of the project to the maximum practical extent possible. Store this data in a shared repository or facilitate data access to advance CDR MRV and accelerate market development.

**“Question 13. In addition to the factors identified in this proposed guidance, are there other factors that should be taken into account by a DCM when considering, and/or addressing in a VCC derivative contract’s terms and conditions, whether the registry operated or utilized by a crediting program has processes and procedures in place to help ensure clarity and certainty with respect to the issuance, transfer, and retirement of VCCs?”**

Carbon Direct believes that high-quality carbon credits should be tracked via dual (parallel) accounting. In this framework, emissions and credits count once toward the emissions inventory of the private entity that purchases credits under the Greenhouse Gas Protocol. They are also counted once toward the national inventory of the country in which the carbon mitigation activity occurred. In other words, national emissions inventories reflect the sum of all emissions and removals that occur within national boundaries. No two private entities and no two national inventories claim the same climate attribute. This stands in contrast to the problematic phenomenon of double counting in which multiple private entities simultaneously claim credit for a single emissions reduction or removal—a practice which many, including Carbon Direct, work actively to curb.

For example, in May 2023, Danish energy company Ørsted announced its first bioenergy with carbon capture and storage CDR offtake agreement. This contract will see Microsoft purchase a total of 2.67 million tonnes from Ørsted’s Kalundborg project over an 11-year period. The Danish government is also partly subsidizing this first-of-a-kind project in an effort to promote carbon capture and storage as a

key contributor to the fulfillment of Danish climate targets. This project illustrates the practice of parallel accounting. It is more fully described in Carbon Direct's publication [\*Large-scale carbon dioxide removal and dual accounting: Microsoft and Ørsted\*](#).

**“Question 16. Certain private sector and multilateral initiatives recognize the implementation by a crediting program of measures to help ensure that credited mitigation projects or activities meet or exceed best practices on social and environmental safeguards, as a characteristic that helps to inform the integrity of VCCs issued by the crediting program. When designing a VCC derivative contract, should a DCM consider whether a crediting program has implemented such measures?”**

As stated in our comments in response to Question 1, above, Carbon Direct believes that a CDR project developer must take into account the project's potential harms and benefits to economic, social, and environmental systems. Environmental Justice impacts of the project must also be considered.

Carbon Direct believes that all project developers must:

- Show that projects have a low risk of community health impacts and provide a strategy for mitigating any such health risks.
- Assess the likelihood and severity of project activities negatively impacting surrounding ecosystems (including but not limited to soil health, biodiversity, and water resources) and provide a mitigation strategy.
- Assess the likelihood and severity of project activities negatively impacting local communities (including but not limited to increased risk of wildfire, food insecurity, energy unaffordability) and provide a mitigation strategy.
- Prevent community displacement.
- Transparently report any use of toxic and/or persistent environmental pollutants, including agrochemicals.
- Avoid using pesticides banned in the United States or European Union.

**“Question 17. Certain private sector and multilateral initiatives recognize the implementation by a crediting program of measures to help ensure that credited mitigation projects or activities would avoid locking in levels of GHG emissions, technologies or carbon intensive practices that are incompatible with the objective of achieving net zero GHG emissions by 2050, as a characteristic that helps to inform the integrity of VCCs issued by the crediting program. When designing a VCC derivative contract, should a DCM consider whether a crediting program has implemented such measures?”**

Carbon Direct believes that direct emissions reductions must take precedence over the use of VCCs and that VCC projects should not be used as a means to continue practices that have harmful external impacts. Concerning measures taken by crediting programs that “help ensure that credited mitigation projects or activities would avoid locking in levels of GHG emissions, technologies or carbon intensive practices that are incompatible with the objective of achieving net zero GHG emissions by 2050,” we believe, where possible, project developers should



make public commitments to carbon reduction targets and clean energy transitions.

Thank you again for the opportunity to share our views on this important subject. We hope that these comments will help inform directional emphasis. Should you have any further questions in response to our comments, please reach out via [policy@carbon-direct.com](mailto:policy@carbon-direct.com).



Jonathan Goldberg  
CEO  
Carbon Direct Inc.