October 7, 2022

Mr. Christopher Kirkpatrick
Secretary of the Commission
U.S. Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street NW
Washington, D.C. 20581

Re: Request for Information on Climate-Related Financial Risk

Dear Mr. Kirkpatrick:

We are a diverse collection of innovative carbon removal sellers with aligned views on the state of the voluntary carbon market.

First and foremost, we hold a deep conviction of the clear necessity of a high functioning voluntary carbon market to drive carbon removals and help the U.S. and world meet its decarbonization goals. We agree that, across the board, all sectors must prioritize deep reductions in their greenhouse gas (GHG) emissions. However, even with these necessary and significant reductions, the IPCC finds that we'll need to remove large amounts of carbon from the atmosphere (on the order of hundreds of billions of tons) before 2100 to both 1) offset hard-to-abate sectors and 2) compensate for likely overshooting the 1.5 degree Celsius goal.

The availability of carbon removal technologies does not reduce the need for rigorous environmental protections and policies that ensure all sectors reduce emissions as much as possible. In conjunction with these actions, however, carbon removal is a tool for Environmental Justice, helping to protect marginalized communities from climate change-fueled damage, including the effects of extreme weather, by removing legacy carbon emissions from the atmosphere.

Investing in measures to mitigate climate change is a critical corporate strategy, as climate change poses significant risk to businesses of all types and sizes. These investments can help provide a higher return on investment and mitigate otherwise unseen risks and financial impacts. However, not all investments are created equal. Markets without adequate transparency, including those that do not distinguish between important but temporary offsets like conservation and investments in more permanent carbon removal projects, can lead market participants to significantly miscalculate the impact these credits have on overall risk.

All of these reasons drive our interest in improving the functioning of the voluntary carbon markets to increase the quantity of high-quality carbon credits that are available and clearly distinguish between high-quality and low-quality credits. As we discuss in our responses below, the most important need in the market is standardized reporting on additionality; permanence; and monitoring, reporting, and verification (MRV).

Additionality allows sellers to prove that the carbon credit is directly responsible for removing new carbon from the atmosphere (rather than claiming credit for carbon that would have already been removed), permanence should show the timescale that carbon is guaranteed to be sequestered from the atmosphere (whether that's 10, 100, or 1000 years), and MRV indicates the scientific and technical rigor of the seller to ensure that what they are selling is accurate and measurable. In particular, we believe that market differentiation based on permanence is key – a ton of carbon dioxide that's emitted will remain in the atmosphere for 300-1000 years, and any carbon credits that seek to offset that emission should accurately account for a full 300-1000 years.

The following actions can help increase quality and decrease fraud across the voluntary market, and we believe the Commission can have a critical role in instituting these recommendations for carbon credit registries, to the extent the Commission has authority over these entities, and carbon credit derivative markets (for simplicity, we refer to all these entities as "formal exchanges", distinct from transactions directly between a buyer and seller):

1. Set reporting standards within formal exchanges to increase transparency of credits' additionality, permanence, and MRV.
2. Increase oversight over formal exchanges to help prevent fraud.
3. Create a voluntary registration framework for formal exchanges that requires registrants to adhere to the Commission's credit attribute reporting standards and other consumer protections.

We further flesh out these recommendations in our answers below.

**Voluntary Carbon Markets**

*22. Are there ways in which the Commission could enhance the integrity of voluntary carbon markets and foster transparency, fairness, and liquidity in those markets?*

The voluntary carbon market currently faces a host of issues related to information asymmetry between credit sellers and buyers. To the extent that legwork has been done to understand how additional, permanent, and verifiable carbon credits are (the most crucial pieces of information to understand the quality and appropriate cost of the credits), this information typically stays with the seller and is rarely made available to the buyer. This information asymmetry is at the core of many of the problems that we see in the voluntary carbon market, and in many cases it has created a reality where it is nearly impossible for buyers to distinguish between high-quality and low-quality credits, which should be critical in determining price.

Low-quality credits are typically cheaper, since they are not burdened by the higher costs of being additional, permanent, or verifiable. The lack of transparency in the market then leads buyers to purchase low-quality credits while high-quality credits are priced out of the market. This is an embodiment of the well established "Market for Lemons" phenomenon.[1] In a worst

[1] Akerlof, George A. (1970). "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism". *Quarterly Journal of Economics*. The MIT Press. **84** (3): 488–500.

case scenario, this means buyers are spending money on a worthless product, sellers are not incentivized to invest in high-quality credits and instead are forced into a race to the bottom on quality and price, and the climate is worse off because reported carbon removal has not actually taken place.

Therefore, we recommend the reporting standards within formal exchanges. At a minimum, these reporting standards should require sellers to report their credits' additionality, permanence, and MRV process so that buyers can have a true apples-to-apples comparison when choosing which credits to purchase:

- Additionality: explain how purchasing the credit results in net new carbon removed, beyond removal that was already going to occur.
- Permanence: report the length of time carbon is guaranteed to be sequestered from the atmosphere.
- MRV: disclose how the seller will approach monitoring, reporting, and verification of carbon sequestration.

This builds on others' work in this space (including the Integrity Council for the Voluntary Carbon Market's attribute tagging framework). Standards around this reporting within formal exchanges will increase transparency around credit quality, fairness to both credit sellers and buyers, and liquidity as inspiring buyers gain confidence in the credits and sellers are incentivized to produce more high-quality credits.

*23. Are there aspects of the voluntary carbon markets that are susceptible to fraud and manipulation and/or merit enhanced Commission oversight?*

While experienced buyers and sellers have successfully conducted many high-quality, transparent over-the-counter carbon transactions, a number of formal exchanges do not meet high quality standards for permanence, additionality, and MRV.

In particular, the ecosystem struggles with certification, in which a seller's MRV protocol describing their physical sequestration and carbon accounting process is agreed to be scientifically valid and complete. Currently, each legacy formal exchange largely certifies credits sold on their platform, but unfortunately they lack the ability to credibly certify rigor and additionality. As numerous news articles and research pieces have shown, the existing exchanges have not succeeded in sustaining the necessary levels of quality, resulting in a dramatic lack of trust in their credits. Some of the most high profile examples have been forest carbon projects that receive up front carbon credits for not logging, even though the owner admits they had no plans to log, meaning the credits aren't additional since the carbon would have been stored even without the payments.[2]

[2] Perhaps most famously, https://www.bloomberg.com/features/2020-nature-conservancy-carbon-offsets-trees/ and https://www.bloomberg.com/news/features/2021-04-05/a-top-u-s-seller-of-carbon-offsets-starts-investigating-its-own-projects

Part of the lack of quality seen in these formal exchanges is likely explained by their business model and incentive structure: the exchanges take a 10-30% revenue cut of every carbon offset sold, which incentivizes volume over quality. This leads to a proliferation of low-quality credits on the exchanges. It also drives sellers of high-quality credits who have the means to sell over-the-counter directly to buyers to leave the exchanges, thereby also lowering the average credit quality on the formal exchanges. All of this dramatically reduces the scalability of the sector (and high-quality credits in particular), as there is a very limited market of buyers and sellers with the experience to make these over-the-counter purchases.

Given these issues with quality and trust, we recommend implementing guardrails that help de-conflict exchanges' models, with more rigorous reporting standards for quality (including permanence, additionality, and MRV, as discussed in Question 22). Additional oversight and reporting requirements would increase transparency and trust in the credits and the market as a whole.

*24. Should the Commission consider creating some form of registration framework for any market participants within the voluntary carbon markets to enhance the integrity of the voluntary carbon markets? If so, what would a registration framework entail?*

We recommend that the Commission create a voluntary registration framework for exchanges. This registration framework should require any exchanges who seek registration to establish a set of consumer protections that ensure buyers are aware of the characteristics of the carbon products that they are purchasing, particularly around attributes such as permanence and additionality. Registrants should also demonstrate how products sold on their exchange will be measured and verified (or, if different MRV processes apply to different credits, what MRV standards the exchange will set), and how this information will be made available to the consumer. Furthermore, registered exchanges should disclose what remedies are in place for consumers who procure carbon products that fail to deliver on their committed attributes, and should also compile a public list of all past credit recalls on the exchange.

This should be a confidence-building mechanism for the exchanges, giving buyers a shortcut to finding exchanges that uphold high standards of quality, and creating a positive feedback loop that further incentivizes exchanges to voluntarily register. By working as a signaling mechanism (highlighting which exchanges are more likely to be trustworthy and rigorous) and providing more information about carbon credits for buyers to digest before making purchases, this voluntary registration framework should increase transparency and quality.

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We would be happy to elaborate further on any of the points raised in this letter. For further information please contact Peter Reinhardt, CEO & Co-founder of Charm Industrial, at contact@charmindustrial.com.

Sincerely,

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