CARBONDIRECT

To: Gary Gensler
Chairman, Securities and Exchange Commission

File No. S7-10-22
Subject: The Enhancement and Standardization of Climate-Related Disclosures for Investors

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Chair Gary Gensler,

Carbon Direct is encouraged by the Securities and Exchange Commission's ("Commission") proposed rule regarding the Enhancement and Standardization of Climate-Related Disclosures for Investors RIN 3235-AM87 ("Proposed Rule"). Carbon Direct employs over 40 world-class scientists and works with leading companies and governments to implement high-quality carbon management programs. Our services support our partners in vetting and purchasing high-quality carbon credits. Our belief—consistent with the latest IPCC research—is that carbon removal is an essential part of any pathway to meeting the climate goals outlined in the Paris Agreement.[1] We are motivated by the thousands of companies that have committed to achieving net-zero targets or other emissions reductions commitments, and the opportunity to turn these commitments into action.[2]

Many of these targets, implicitly or explicitly, are contingent on the procurement of significant volumes of carbon credits through voluntary carbon markets (VCM) for emissions accounting purposes.[3] The scientific integrity of these voluntary commitments is reliant on the successful establishment, scaling, and governance of the carbon removal market that is currently dominated by non-additional and over-credited projects.[4] Relying on the carbon market in its current state without increased regulatory scrutiny would be a significant setback for climate action and a substantial risk for investors. Investors lack the information needed to assess the legitimacy of voluntary commitments contingent on the carbon credits currently available on the market. In the comment that follows, we offer an overview of the challenging state of the current VCM, provide recommendations for the accurate and rigorous disclosure of carbon offsets, and lay out guidance for how the SEC can support high-quality[5] carbon disclosures and action.

Specifically, we address:

1. The importance of disclosing independently verified, accurate, and empirically-driven absolute scope 1-3 emissions without the inclusion of offsets (Questions 24, 37, 49, 93-103, & 109-113);
2. The necessity of traceability and transparency in identifying carbon offset transactions and their application within internal emission accounting (Questions 24, 67, 101, 102, 170, & 173); and
3. The insufficiency of existing carbon offset standards to produce additional and high-quality carbon removal credits (Questions 170 & 173).

[1] Friedmann, J., Mass, W., McCormick, C., & Bushman, T. (2022). On the IPCC AR6 WGIII Report: Why Carbon Removal is an Essential Part of Meeting Climate Goals. Carbon Direct. https://carbon-direct.com/2022/04/ipcc-why-carbon-removal-is-an-essential-part-of-meeting-climate-goals/
[2] Science Based Targets initiative. (2022). Companies Taking Action. https://sciencebasedtargets.org/companies-taking-action
[3] World Bank Group. (2020). State and Trends of Carbon Pricing 2020. Washington, DC. https://openknowledge.worldbank.org/bitstream/handle/10986/33809/9781464815867.pdf
[4] Hong, Austin. (2022). Assessing the State of the Voluntary Carbon Market in 2022. Carbon Direct. https://carbon-direct.com/2022/05/assessing-the-state-of-the-voluntary-carbon-market-in-2022/
[5] Carbon Direct & Microsoft. (2022). Criteria for high-quality carbon dioxide removal. https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RWGG6f?utm_source=blog&utm_campaign=msft_criteria_2022

The VCM in its current state lacks the science, regulation, and supply to adequately match the demand that will be generated by corporate emission commitments. VCM standards and protocols are entirely unregulated, use accounting protocols that result in projects that vary significantly in scientific rigor, and equivocate emissions removals and reductions.[6] [7] Studies of offset quality have found high rates of over-crediting across many project types due to the participation of projects that would have gone ahead regardless of the offset income (non-additionality), baseline uncertainty, accounting of leakage (the displacement rather than reduction of emissions), and the choice of emissions factors. Documented rates of over-crediting are high, for example: 29% from the definition of common practice under the California Air Resources Board's U.S. Forest offset improved forest management projects,[8] 51-82% from the same protocol due to leakage accounting,[9] 50% from cookstoves projects from the choice of one emissions factor (fraction of non-renewable biomass),[10] and 73% from Clean Development Mechanism projects (the largest offset program globally to date).[11] Our analysis of the current VCM documented that avoided deforestation (REDD+) and renewable energy credits generating the large majority of credits on the market to date present a high risk of over-crediting due to additionality and baseline uncertainties.[12] Over-crediting has been documented by a range of other project types.[13] Without the information needed

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[6] Bloomberg New Energy Finance. (2022). Long-Term Carbon Offset Outlook 2022. Bloomberg. New York, New York.

[7] Hong, Austin. (2022). Assessing the State of the Voluntary Carbon Market in 2022. Carbon Direct. https://carbon-direct.com/2022/05/assessing-the-state-of-the-voluntary-carbon-market-in-2022/

[8] Badgley, Grayson, Jeremy Freeman, Joseph J. Hamman, Barbara Haya, Anna T. Trugman, William R. L. Anderegg, and Danny Cullenward. 2021. "Systematic Over-Crediting in California's Forest Carbon Offsets Program." *Global Change Biology* 28, no. 4 (October): 1433–45. https://doi.org/10.1111/gcb.15943

[9] Haya, Barbara. 2019. "Policy Brief: The California Air Resources Board's U.S. Forest Offset Protocol Underestimates Leakage." University of California, Berkeley, May 7, 2019. https://gspp.berkeley.edu/assets/uploads/research/pdf/Policy_Brief-US_Forest_Projects-Leakage-Haya_4.pdf

[10] Bailis, Rob, Yiting Wang, Rudi Drigo, Adrian Ghilardi, and Omar Masera. 2017. "Getting the Numbers Right: Revisiting Woodfuel Sustainability in the Developing World." *Environmental Research Letters* 12, no. 11 (October): 115002. https://doi.org/10.1088/1748-9326/aa83ed

[11] Cames, Martin, Ralph O. Harthan, Jürg Füssler, Michael Lazarus, Carrie M. Lee, Pete Erickson, and Randall Spalding-Fecher. 2016. *How Additional Is the Clean Development Mechanism?* Freiburg, Germany: Institute for Applied Ecology. https://ec.europa.eu/clima/system/files/2017-04/clean_dev_mechanism_en.pdf

[12] Hong, Austin. (2022). Assessing the State of the Voluntary Carbon Market in 2022. Carbon Direct. https://carbon-direct.com/2022/05/assessing-the-state-of-the-voluntary-carbon-market-in-2022/; Berkeley Carbon Trading Project. (2022). Voluntary Registry Offsets Database. The Goldman School of Public Policy. https://gspp.berkeley.edu/faculty-and-impact/centers/cepp/projects/berkeley-carbon-trading-project/offsets-database; Haya, Barbara. 2010. "Carbon Offsetting: An Efficient Way to Reduce Emissions or to Avoid Reducing Emissions? An Investigation and Analysis of Offsetting Design and Practice in India and China." Doctoral dissertation. Energy & Resources Group, University of California. https://escholarship.org/content/qt7jk7v95t/qt7jk7v95t.pdf; He, Gang, and Richard Morse. 2014. "Addressing Carbon Offsetters' Paradox: Lessons from Chinese Wind CDM." *Energy Policy* 63, (December): 1051–5. https://doi.org/10.1016/j.enpol.2013.09.021; West, Thales A. P., Jan Börner, Erin O. Sills, and Andreas Kontoleon. 2020. "Overstated Carbon Emissions Reductions from Voluntary REDD+ Projects in the Brazilian Amazon. *Proceedings of the National Academy of Sciences* 117, no. 39 (September): 24188–194. https://www.pnas.org/doi/full/10.1073/pnas.2004334117;

[13] Macintosh, Andrew. 2022. "The Emissions Reduction Fund's Landfill Gas Method: An Assessment of its Integrity." The Australian National University, Canberra, March 16, 2022. https://law.anu.edu.au/sites/all/files/erf_landfill_gas_method_-_an_assessment_of_its_integrity_16_march_2022.pdf ; Zelikova, Jane, Freya Chay, Jeremy Freeman, and Danny Cullenward. 2021. "A Buyer's Guide to Soil Carbon Offsets." CarbonPlan, July 15, 2021. https://carbonplan.org/research/soil-protocols-explainer; Wara, Michael. 2008. "Measuring the Clean Development Mechanism's Performance and Potential." *UCLA Law Review* 55, (August): 1759–803. https://www.uclalawreview.org/measuring-the-clean-development-mechanisms-performance-and-potential/; See also Berkeley Carbon Trading Project's Repository of Articles on Offset Quality,

to independently assess the quality of carbon offset credits used to compensate for a registrant's scope emissions, investors will remain unable to assess the market, regulatory, reputational, and litigation risks associated with emissions reductions claims. Accordingly, Carbon Direct strongly supports the Commissions' proposed rules under Items 1502, 1504, and 1506.

1) **Assessing the Accounting Risk** ***§ 229.1504 (Item 1504)***

Accurate and separate disclosure of scope 1, 2, and 3 greenhouse gas (GHG) emissions, and the procurement and retirement of carbon offset credits to attempt to compensate for these emissions, are critical for informed investment decisions. As the Commission moves to require consistent disclosure of emissions and offsets for companies that have set emissions targets or made emissions claims, the disclosure of carbon accounting practices will demonstrate a number of material risks. We accordingly support the Commission's effort to develop a standardized approach for empirically-informed and data-driven disclosure of scope 1, 2, and 3 emissions in a uniform manner. Consistent certification and verification of emissions accounting, reporting, and attestation service providers are vital precursors to assessing the relative risk of annual and anticipated carbon credit purchases. Ultimately, the standardized reporting of registrants' emissions will be required to enable investors and boards to make informed and comparable assessments of the risks associated with any carbon offset procurement decisions.

Assessments of voluntary emissions reports in contrast with standardized emissions accounting frameworks have determined that the former significantly underreport corporate emissions.[14] For this reason, we support the Commission's decision to pursue a designated framework for the disclosure of emissions on a scope and source-category basis. According to Net Zero Tracker, only a third of the analyzed commitments meet the minimum disclosure standards of identifying a specific emissions reductions pledge, articulating intermediate transition efforts, and reporting at least annually.[15] Specifically, the Commission should mandate the use of EPA's greenhouse gas (GHG) list consistent with the global warming potentials, source categorizations, and emissions factors already utilized by leading reporting institutions such as CDP and GHG Protocol. While companies may choose to disaggregate GHGs and disclose comprehensive source emissions, they should also disclose mandatory and uniform accounting parameters, scope categories, and global warming potentials as part of the requirement so as to enable direct comparison of emissions risks and transition plans across each sector.

Finally, the Commission should require these emissions disclosures in absolute volumes as described above with the option of additional metrics such as carbon intensity on a revenue or product basis, and without the incorporation or inclusion of carbon offsets. As we describe in the sections that follow, to do so, the varying quality of carbon credits must be addressed so as to account for the material risks in transition plans, supply chains, and carbon offset market dynamics and public policy.

2) **Identifying and Characterizing the Carbon Market Risk:** ***§ 229.1502 (Item 1502) (c) and § 229.1506 (Item 1506) (b)(6) and (a)(2)***

As thousands of companies race to decarbonize their supply chains to meet net-zero or other emissions reductions targets, it will be crucial for investors to be appropriately informed on how companies intend to meet these commitments. A recent assessment reported that the price of carbon offsets could increase

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https://gspp.berkeley.edu/faculty-and-impact/centers/cepp/projects/berkeley-carbon-trading-project/repository-of-articles.

[14] Depoers, F., Jeanjean, T., & Jérôme, T. (2016). Voluntary disclosure of greenhouse gas emissions: Contrasting the carbon disclosure project and corporate reports. Journal of Business Ethics, 134(3), 445-461.

[15] Lombrana, Laura Millan. (2022). Most Corporate Net-Zero Targets Are Weak And Vague, Report Says. Bloomberg. https://news.bloomberglaw.com/esg/most-corporate-net-zero-targets-are-weak-and-vague-report-says

by up to fifty-fold by 2050 due to limited supply and outsized demand.[16] We emphasize that supply is not only insufficient in volume – it is insufficient in quality and consistency. While initiatives such as the Taskforce on Scaling Voluntary Carbon Markets (now titled Integrity Council for the Voluntary Carbon Market) have refocused on improving the quality and rigor of offset protocols before scaling the markets,[17] overarching regulatory frameworks for standardization and quality remains lacking, leaving the VCM riskier than it need be for all market participants. Over the next three decades, companies will likely face an increasingly supply- and quality-constrained VCM, while investors will struggle to assess the integrity, merit, and risk of corporate climate commitments and actions. This will be driven by several factors, including the increasingly high demand for and costs of traceable and low-carbon supply chains may naturally route many companies to the VCM to meet climate targets. In these instances, procurement of low-quality credits can pose reputational risks, while failure to develop a long-term climate transition strategy in pursuit of low-cost and quality offsets may leave companies vulnerable to price spikes and supply shortages within the VCM.

Carbon Direct applauds and strongly encourages the Commission's leadership in proposing a rule which would require companies to specify the purpose and application of carbon offsets if used to achieve a net emissions reduction target. As many comments will suggest, the role of the Commission should not be to regulate the eligibility or quality of carbon offsets under various protocols. Rather, the Commission can and should detail the appropriate taxonomy or categorization, documentation, and risks associated with purchased and intended purchases of carbon offsets. In the context of companies with emissions reductions targets or which make net emissions reduction claims, Carbon Direct encourages the Commission to require registrants to disclose:

- Scope 1, 2, and 3 emissions without the application of carbon offsets;
- Annual carbon offset purchases and retirements, and the emissions within the companies' Scope 1, 2, and 3 emissions, which the offsets are intended to offset;
- Information needed to identify the specific offset projects used by a company, including the type (reduced or removed emissions), the offset registry ID number if there is one, or otherwise identifying information including the project developer, the specific location, the verifier, and project type (wind power, improved forest management, technology, etc.).[18]

3) Cultivating Quality Transparency *§ 229.1506 (Item 1506)*

The effectiveness of an offset in compensating for a given company's emissions can only be understood through details regarding the source, project type, price, and quality of the credits utilized. A carbon offset enables a one-time purchase of an equivalent emissions benefit, however, the risks of a given carbon offset persists long beyond the year in which a company applies the emissions reduction to their scope emissions. Specifying the emissions sources that companies choose to offset may inform investors of potential long-term carbon lock-in risks.[19] To assess the integrity and risk of an emissions reduction strategy, investors need standardized information on the long-term liability associated with and role of

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[16] Bloomberg NEF. (2022). Carbon Offset Prices Could Increase Fifty-Fold by 2050. Bloomberg. https://about.bnef.com/blog/carbon-offset-prices-could-increase-fifty-fold-by-2050/

[17] White, N. & Shankleman, J. (2022). Carney's Bid to Grow Carbon Market Rejigged Amid Controversy. Bloomberg Green. https://www.bloomberg.com/news/articles/2022-03-16/carney-s-bid-to-boost-carbon-market-scaled-back-amid-controversy

[18] See proposed 17 CFR 229.1506(d).
In the case of pooled credit portfolios, disclosure can be made for the pool as a whole, with sufficient disclosure of aggregated credits such that a reasonable investor could assess the relative risk of emissions reductions and transition strategies. This will allow investors to know critical information about the quality, and therefore the financial and reputational risks, associated with the credit use.

[19]For example, if a company currently holds emissions intensive assets that are largely offset using voluntary credits, this may pose a long term risk to shareholders due to the recurring and increasing cost of offsets each year.

offsets in a company's climate strategy. If the underlying asset, supply chain, or input of a company is too costly or difficult to decarbonize, investors should be able to assess the long-term costs associated with continued offset procurement as well as the risks posed by carbon offsets purchased. Similarly, the use of low-quality carbon offsets may expose a registrant to risks associated with human rights violations or community conflict, policy or regulatory changes, and litigation challenges from anti-greenwashing efforts. Finally, investors will need to understand the extent of offsets in a registrant's emissions reduction plan, as reliance on offsets increases exposure to supply deficits, price spikes, and the aforementioned legal and reputational risks. The Commission should enable investors to evaluate these risks using the standardized disclosure methods described in Items 1504 and 1506.

Disclosing a Path Forward

Carbon Direct has found, through our work with dozens of large corporations, that the quality of credits on the VCM is highly variable and that most credits either represent exaggerated amounts of climate benefit or do not represent any climate benefit at all (are non-additional). This means that the supply of high-quality carbon offsets is insufficient to meet demand. Both reliable quality and supply are requirements for a credible offset market, but the current nature of the VCM does not guarantee either. To expose financial risk associated with offset purchasing and use, companies should be required to disclose the annual role that carbon offsets serve, and are expected to serve, in their efforts to meet their emissions reduction commitments. Greater transparency within carbon offset markets more broadly would demonstrate potential supply constraints and help investors and companies alike make more informed decisions on the economic, reputational, and transitional risks of carbon offset purchases and associated emissions accounting.

Carbon Direct thanks the Commission for this important step in regulating climate-related risks and disclosures. We hope that this comment will be helpful in informing directional emphasis.

We are grateful for your leadership,

Jonathan Goldberg
CEO
Carbon Direct