July 3, 2025
To: CARB Climate Disclosure Working Group climatedisclosure@arb.ca.gov
From: Muriel Strand, P.E.
Re: Comments pursuant to SB253 & SB261 May 29 workshop

Happy Fourth of July! Tangential reference during the workshop to the effects of national political chaos as a challenge to all stakeholders leads me to offer this global commentary as context I found valuable and relevant to our continued freedom and independence: https://www.youtube.com/watch?v=NtgWytCmulg

Constructing an effective regulation pursuant to SB253 & SB261 is a challenge for everyone—CARB, businesses, and citizens. And all will benefit from developing and sharing accurate and precise information about GHG emissions and related financial risks. A key factor in this regulation's effectiveness in providing useful market information for positive consumer responses is the discontinuity between the price of fossil energy and the price of human energy, as mentioned in my original comments. That discontinuity bears directly on considerations of the scale—of towns, farms, industries, supply chains and more. Wisdom bids us conform our economy to the human source of energy, as both homo sapiens and the planetary ecology have evolved with that parameter for billions of years, until the last few centuries.

Reminding the regulated community of our common goal should induce a common purpose and dedication. How can the interests of all stakeholders be aligned within the regulation? One key factor is that biological systems and solutions are generally more cost effective and accessible than mechanical systems and solutions. In general, the burden of proof should lie with the artificial, fossil fuel systems to prove they are better than traditional biological systems.

Staff can help emitting entities report good emissions information by offering standard procedures for common emitting processes. Within each of Scopes 1, 2 and 3, I expect that 80% of emissions will be relatively straightforward and require only 20% of the effort for a robust regulation and accurate reporting; conversely there is likely to be a thorny 20% of emissions with various technical complications that will need 80% of everyone's efforts.

Characterization of Scope 3 emission categories may be supported by beginning with anecdotes, lots of them, that will as they accumulate indicate to CARB and the entities in question how best to handle Scope 3 reporting going forward. There are more than a few wicked problems posed by these statutes; even those who will not be required to report pursuant to the regulation will benefit from the results of all this reflection and co-evolution. Regulations are the result of market failures, and providing consumers and corporations alike with more perfect information can help markets succeed better.

Hearing mention during the Q&A of 3 approaches to estimating Scope 3 emissions, it seems that particular approaches may be suited to particular emission categories or processes. Listing known verifiers and inviting them to specify their experience with these approaches may help

reporting entities with planning. Given the systemic nature of the data required, other state agencies such as the DMV, BAR, CEC, and FTB may have data that would be relevant for cross-checking and reconciliation.

Some types of emissions typically accounted as corporate overhead are likely to be similar through the economy, offering standardization for such emitting processes that are common across sectors. Meanwhile, such a modular approach can be combined with sector-specific standards.

There will be concerns about proprietary information. Explore the possibility of similar businesses working together to develop accurate emission and activity factors for their sector/s that are supported by good data yet are grouped together in a way that anonymizes and protects proprietary information. Trade associations have a role to play here.

If stakeholders could easily access a database of all the commenters to date, that should facilitate more cross-fertilization and synergy going forward, so please consider recruiting an intern to set that up on your website.

Does the legislation call for or allow GHG reduction, sequestering and storage processes to offset GHG emissions? Can entities also provide such information for consumers and the general public? Can reporting entities reduce required fees by such validated reductions in net emissions? Can such information facilitate our transition to true ecological sustainability? Biochar has much potential for such offsets in many sectors, and dedicated researchers are devoting much time and effort to characterizing and quantifying such. The 2025 annual conference of the US Biochar Initiative is in September: https://www.biocharconference.com/

Selection of accurate and precise metrics and measurements will at times be tricky, such as with qualitative and complex natural sectors like agriculture. Identify the ultimate goal, such as ecologically harmonious agricultural practices, including permaculture and truly regenerative agriculture (and no, no-till with pesticides does not qualify as regenerative). Then work backwards to characterize the path leading to such outcomes which will minimize financial risks over the long term.

Given our global economic system, supply chains are a key factor. Transport of freight by ship, truck, rail and local distribution means emissions and costs embedded in practically all items. If it's true that the average food item on US plates travels 1300 miles from farm to table, how did they calculate that? This may be the province of third-party verifiers and Scope 3 protocols.

The goal of making information about GHG emissions and financial risks more useful to investors and consumers would be supported by the triple-pricing idea outlined in my original comments. Consumers especially need information that's very accessible and relevant to their daily lives and shopping choices, as well as to the larger context of global emissions and climate.

Similarly, for climate governance, emissions information should be paired with and embedded in standard financial and accounting statements and balance sheets. In particular, those responsible for real estate corporate governance must expand their awareness. When I took California's 2 basic real estate courses at Sacramento City College, one of the instructors told us point-blank that the 'highest and best use' of any piece of property was *defined* as whatever makes the most money. But money can *never* be the independent variable. So integrating emissions estimate in that market promises desirable results.

Physical climate risks are both chronic and acute. Systemic and transition risks can be reduced by simplification, despite the fact that complexity is correlated with higher profits and, sadly, is often created just for paper profits. Attention to the financial and transition risks posed by the discontinuity between fossil energy prices and human energy prices will help everyone.

I sympathize with the need for clarity in the final regulation. Bob Effa used to tell us to write things in a way that they could not possibly be misunderstood. It was good advice, and more iterations and review will help.