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Clerk of the Board
California Air Resources Board
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The Verified Emission Reduction Association, or VERA, is appreciative of the opportunity to provide comments on the California Air Resources Board (CARB or Board) Cap and Trade regulatory package released on September 4, 2018. We appreciate the opportunity to continue working with the Board and CARB staff on this transition of the program and to finalize this critically important rulemaking to ensure the continued and successful use of offsets in the post-2020 Cap and Trade Program.

VERA is made up of 10 individual companies with vast experience in achieving real greenhouse gas (GHG) reductions for the cost-effective use in California's Cap and Trade Program (Program). VERA strongly supports California's efforts to reduce statewide GHG emissions through a market-based program, including the use of high-quality carbon offsets. We are pleased that AB 398 codified the use of offsets in the Program, yet at the same time must acknowledge that halving the prior offset utilization limits will result in increased costs to California businesses, consumers and ratepayers. We continue to support CARB's efforts to maximize the benefits of offsets to contain costs and support the development of new innovative projects and technologies on a scale not achievable through command and control regulations. We believe an effective component to help accomplish the Programs' lofty goal—establishing a program in which other jurisdictions can participate—is to maximize the ability of entities to use offsets under the new AB 398 parameters.

VERA members are fully committed to the fundamentals of environmental integrity, ensuring that offsets are real, quantifiable, permanent, verifiable, additional and enforceable GHG reductions, as required under the Program. There are many provisions in this proposed regulatory package that VERA strongly supports. Our comments below highlight those issues as well as some outstanding concerns we have. It should be highlighted up front that maximizing offsets will have a direct positive economic and environmental benefit within California, including within designated disadvantaged communities.

We have been an active participant in this rulemaking process and previously submitted detailed comments.^{1,2,3} VERA stands by those recommendations, incorporates them by reference in this comment letter and would like to provide additional comments based on staff's 45-day package proposal.

The Legislature's decision to codify offset use recognizes that offsets benefit the Program and California's environment and economy in both rural and urban areas throughout the state. Therefore, implementing the program in a way that fully utilizes the new statutorily authorized limits is key to keeping with legislative intent for the Program to have post 2020 cost-containment provisions. The staff report again highlights some of the major benefits of the offset program—cost containment and production of real reductions outside of capped sectors. VERA concurs with these staff positions.

VERA is supportive of the following staff proposals:

- Definition of Direct Environmental Benefit and Ceiling Price Unit
- The construction of § 95854(b)—Quantitative Usage Limit on Designated Compliance Instruments—Including Offset Credits
- Determination that in-state projects using CARB-approved offset protocols meet the DEBS definition
- Inclusion of a pathway for out-of-state offsets to demonstrate Direct Environmental Benefits to California
- Inclusion in § 95977.1(b)(3)(M) of a materiality provision
- Revised provisions for regulatory compliance in § 95973(a)(2)(C)
- Appendix E's recognition of the relationship between offset compliance and occupational and health and safety regulations

Implementation of Direct Environmental Benefit Provision of AB 398

VERA supports CARB's assertion that, in addition to in-state offset projects, many other CARB-approved offset projects located outside of the state boundaries can, and do, provide direct environmental benefits to California. In fact, science indicates that a reduction of greenhouse gases anywhere provides environmental benefits everywhere, but even more so in locations like California that are especially prone to harm from climate-dependent factors such as sea level rise and drinking water supplies heavily dependent on snowpack. Having a clear and straightforward process for project developers to demonstrate a DEBS will benefit the program's implementation and incent more projects with California benefits.

The original AB 32 Climate Change Scoping Plan⁴ laid out a vision for leadership and exportability of California's GHG program. It also highlighted that reducing in-state emissions alone would not solve the larger issue. Those original goals of global action for the benefit of California are being achieved with the use of offsets, both within and outside of California as the reduction of unregulated GHGs has enormous benefit to California's long-term

¹ <https://www.arb.ca.gov/lists/com-attach/1219-ct-4-26-18-wkshp-ws-UWRVfIZmVTYGLQQ1.pdf>

² <https://www.arb.ca.gov/lists/com-attach/37-ct-6-21-18-wkshp-ws-V2ABKgMwUDMCKQc2.pdf>

³ <https://www.arb.ca.gov/lists/com-attach/35-ct-3-2-18-wkshp-ws-UWIGLVJiA2YLIAMy.pdf>

⁴ <https://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm>

goals of reducing the impacts of global climate change. The continued release of potent emissions such as methane, black carbon and refrigerants is of great concern and urgency. Offsets provide a viable mechanism to achieve the additional reductions necessary to help achieve the larger goal, and that is a foundational policy laid out in the Scoping Plan that needs to continue. These impacts are also laid out before you in great detail by the California Resources Agency's Safeguarding website.⁵ Moreover, science has shown that emissions of GHGs around the globe have a climatic impact on California and its waters.^{6,7}

CARB rightly is proposing to base DEBS determinations on science rather than a strictly "in-state" vs "out-of-state" paradigm that is focused exclusively on political boundaries. Such a firm unscientific basis would open the regulation to legal challenges⁸. This legal determination has, in fact, already been acknowledged by CARB in the original Cap and Trade staff report almost a decade ago⁹. It is far more important to incent real, quantifiable, verifiable, enforceable, additional and cost-effective GHG reductions than to inject unnecessary legal uncertainty into the program. Retaining stability, and minimizing legal risk, will certainly incent further offset reductions to occur, including in many California's urban and rural communities.

VERA also believes that once a project type and/or location has been deemed to have DEBS, CARB should implement a system where substantially similar projects are awarded DEBS determinations with maximal transparency and minimal additional time and expense.

The staff proposal rightly acknowledges that the reduction of GHGs provides a reduction in air pollutants, and thus has a benefit to the state. VERA supports this scientifically-backed position. GHG's are air pollutants by statutory definition, by CARB's previously existing regulatory definition, and by determination of the United

⁵ <http://resources.ca.gov/climate/safeguarding/>

⁶ See, for example, Hayhoe et al. "Emissions pathways, climate change, and impacts on California." National Academy of Sciences of the USA. August 2004 - <http://www.pnas.org/content/pnas/101/34/12422.full.pdf>. This paper finds that, while under a low emissions scenario snow pack loss in California's Sierra Nevada range from 29-72% while under a high emissions scenario loss of 73-89% are anticipated. As described in the paper, loss of snowpack has cascading impacts on "streamflow, and water storage and supply." Avoiding and reducing greenhouse gas emissions is key to maintaining California's snow pack. Reducing greenhouse gas emissions anywhere clearly reduces or avoids a pollutant that has an adverse impact on the waters of California.

⁷ Central Valley Regional Water Quality Board – Climate Change Work Plan December 2017, pp. 9 – 17.

https://www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/1712/20_climatechange/3_climatechange_wkpln.pdf

Los Angeles Region Framework for Climate Change Adaptation and Mitigation, July 2015, pp. 8-12, 20-22.

https://www.waterboards.ca.gov/losangeles/water_issues/programs/climate_change/docs/2015/Climatechange-frameworkforclimatechangeadaptation-final7-20-2015.pdf

The Effect of Climate Change on Water Resources and Programs, U.S. EPA, pp. 9 – 19.

https://cfpub.epa.gov/watertrain/pdf/modules/Climate_Change_Module.pdf

California Climate Adaptation Strategy, Chapter 7 – Water Management, p. 80 – 85.

http://www.climatechange.ca.gov/adaptation/documents/Statewide_Adaptation_Strategy_-_Chapter_7_-_Water_Management.pdf Using

Future Climate Projections to Support Water Resources Decision Making in California. California Climate Change Center, pp. 45-45.

https://www.water.ca.gov/LegacyFiles/pubs/climate/using_future_climate_projections_to_support_water_resources_decision_making_in_california/usingfutureclimateprojectionsupportwater_jun09_web.pdf

"How climate change could threaten the water supply for millions of Californians," *Sacramento Bee*, June 30, 2017.

www.sacbee.com/news/local/article158679214.html

"Gauging climate preparedness to inform adaptation needs: local level adaptation in drinking water quality in CA, USA," Climatic

Change, Feb. 2017; see section 2.2 "Climate change impacts." <https://link.springer.com/article/10.1007/s10584-016-1870-3>

⁸ <https://climatetrust.org/latest-in-state-offset-proposal-will-raise-legal-challenge-dormant-commerce-clause-analysis/>

⁹ <https://www.arb.ca.gov/regact/2010/capandtrade10/capv2appd.pdf> (Page 8, Comment D-46).

States Supreme Court¹⁰. Succinctly said, a reduction in GHGs is a reduction in an air pollutant, and therefore a benefit to the environment. DEBS determinations must take this into account.

There are many environmental benefits to California provided by the Program's offset projects, even those which are focused on GHG-only reductions. There are many examples of how, the collection in-state and the destruction out-of-state of ODS provides DEBS. Such a process creates a healthier stratospheric ozone layer which results in reduced skin cancer rates, regardless of where the material is destroyed. Such projects where ODS is locally collected also protects against higher ground-level ozone levels caused by frequent high heat days that will come with increased atmospheric GHG concentrations. Local groundwater contamination can be likewise reduced by the collection and prevention of CFC-11, which is in a liquid state at atmospheric conditions and can find its way into groundwater.¹¹

Without the incentive of CARB's Carbon Offset Program, ODS would not have been recovered for destruction, but rather reclaimed and resold into the marketplace. All refrigeration and other equipment using halocarbons (whether ODS or high-GWP substitutes) will eventually leak those chemicals into the atmosphere where they will deplete the ozone layer and contribute to global warming. In fact, the legally permissible leak rate for industrial refrigeration equipment is a staggering 30% per year.¹² Unless these ODS/high-GWP materials are reclaimed and destroyed, every pound of halocarbon manufactured will eventually find its way into the atmosphere and cause stratospheric ozone depletion and contributing to global warming.

CARB's ODS offset protocol has been a leader in ozone layer protection by encouraging destruction of older halocarbons, incentivizing the reclamation and permanent destruction of ODS materials. The ODS protocol has created a price driver for project developers to locate, obtain and destroy older ODS and/or high-GWP halocarbons. This has benefitted California by incentivizing the reclamation and permanent destruction of ODS equivalent to a cumulative total of 17,088,886 tons of carbon dioxide equivalent (10,752,176 from compliance projects and 6,336,710 from early action projects) which otherwise would have reached the atmosphere, impacted the ozone layer, exacerbated global warming, and harmed California.

Going forward, without the incentives for reclaim and destruction, the only market drivers will again be to reclaim and resell, as those halocarbons that have a market value, where their end-of-life is the atmosphere. The ongoing ODS protocol and ability to use offsets in California's Cap and Trade Program creates the value and incentive to permanently get rid of them. **This market-based incentive is true for all of California's six approved protocols, which drive economic and environmental benefits for the state.**

For other projects where the co-benefits are more easily seen, forests and dairy projects, the determination should be even more straightforward. In a recent IPCC Report the importance of well managed forests was a prominent finding.¹³ International scientists agree that forests are critical to limiting average global

¹⁰ Massachusetts vs. EPA

¹¹ <https://water.usgs.gov/lab/chlorofluorocarbons/background/>

¹² *Protection of Stratospheric Ozone: Update to the Refrigerant Management Requirements under the Clean Air Act*, 81 Fed. Reg. 82272 (Nov. 18, 2016); 40 C.F.R. § 82.157, Subpart F

¹³ http://www.ipcc.ch/news_and_events/pr_181008_P48_spm.shtml

temperature rise as they provide one of the only readily available, cost-effective means of directly removing and storing GHG emissions at scale.¹⁴ Forests also provide a host of local benefits such as shading and cooling, water filtration and storage, and the provision of wildlife and pollinator habitat.

On September 10, 2018, Governor Brown issued Executive Order B-55-18¹⁵. This action highlights the importance of working lands, in general, but highlights forest health in particular. The Executive Order states that “The achievement of Carbon Neutrality will require both significant reductions in carbon pollution and *removal of carbon dioxide from the atmosphere, including sequestration in forests, soils and other landscapes;*” [emphasis added]. Offsets protocols are the accounting mechanism to quantify exactly what is being asked for by the Governor. Protocols exist for forests, soils, grasslands, rice cultivation, wetlands and more. Maximizing the market signals for working lands in rulemakings such as this is completely complementary to achieving the goals of AB 32 and EO B-55-18.

An argument presented by offset opponents seems to be based on the following logic – an offset surrendered, on net, doesn’t provide an actual GHG reduction. VERA strongly disagrees with this premise. CARB very purposefully created conservative offset accounting mechanisms to ensure that there is a margin of safety associated with all offset projects and credit issuance. This foundational policy of the program guarantees that all projects reduce more GHGs than are actually credited and thus more reductions are gained than used in the Program by compliance entities. In addition to the quantitative surplus of offsets, VERA has already commented on the temporal benefit of reducing GHG’s through the offset mechanism, i.e. that an offset project (reduction today) has a benefit even if the offset is later used by a compliance entity under the rules of the Program (emission at a later date). Basic climate science tells us that these benefits cannot be ignored.

DEBS Evaluation Process

VERA’s previously submitted comments on retroactivity are reiterated here as this issue has significant market and administrative implications. We have serious concerns about the proposal to retroactively evaluate millions of previously issued offsets and projects that will produce credits beyond 2020. These compliance instruments are already in the marketplace, have value, and represent early actions and investment by both the offset developer and the offsets’ current owner. It is simply unfair to alter their value after an investment has been made or a market transaction has been completed.

In addition, substantial market uncertainty already exists and will continue to arise from participants’ inability to determine supplies of both DEBS and non-DEBS offsets. For example, a covered facility may currently hold a number of offsets, but without knowing which are DEBS and which are not, it has no way of knowing if it’s holding too many or too few offsets to be able to comply with AB398’s usage limits. This uncertainty could meaningfully disrupt the cap and trade market and may very well prevent investments from being made in additional emission reduction technologies while it remains unresolved. Consequently, expedited clarification around DEBS designation of existing projects should be a high priority for CARB staff. The 45-day package presently only indicates a deadline for DEBS applications to be received but includes no parameters for when

¹⁴ <http://www.climateandlandusealliance.org/scientists-statement/>

¹⁵ <https://www.gov.ca.gov/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf>

a decision for any application must be made by staff, and having to wait until the end of 2021 or later to learn if these assets have changed in value will allow the significant disruption previously described to continue for far too long.

VERA recommends CARB staff consider the following concepts to address this problem:

1. CARB should consider retroactive determination of DEBS for existing projects.
2. If retroactive DEBS designations are not granted, CARB should:
 - a. Materially increase its staff size to allow for expeditious reviews of DEBS evaluations while also shortening the standard offset issuance review cycle times. It is not inconceivable that this would require a doubling of the existing offset-focused staff.
 - b. Stipulate that DEBS applications will be responded to within 30 days of receipt.
 - c. Be transparent about its DEBS rulings so as to create efficiency for future DEBS applicants and CARB staff.
3. In acknowledgement that DEBS designation may impact an investment decision, CARB should not require an offset project to apply for DEBS only at the submission of an initial OPDR, but rather should allow for application even before an offset project is undertaken.

Regarding retroactive DEBS assessments, we would like to reiterate that retroactively looking at all issued offsets would cause all stakeholders, including CARB, to incur significant administrative and implementation costs. It may also grind to a halt the issuance of new and future offset credits, further disrupting the market. These costs are in addition to the added program costs associated with the reduction in offset usage limits as highlighted in the regulations SRIA.¹⁶

Non-DEBS comments

Scope of Regulatory Compliance

VERA supports the inclusion of Appendix E's clarification on the scope of regulatory compliance. This amendment allows for offset projects to not be subject to invalidation for non-GHG related "occupational health and safety" issues that may have inadvertently occurred at some point during the crediting period but have no impact on the integrity of the offsets. The language requires full compliance prior to offset submittal requests, which is appropriate and supported by VERA.

VERA has one suggested clarification to this section of the amendment package. CARB should clarify that "occupational health and safety" regulation include both the Occupational Safety and Health Administration and the Mine Safety and Health Administration.

Appendix E Section (b) for livestock projects should be revised to state: "...Project activities begin at waste collection and end at onsite biogas usage and ~~the disposal of associated digester effluents~~ lawful deposit of effluent from the digester into an approved storage basin."

¹⁶ <https://www.arb.ca.gov/regact/2018/capandtrade18/ct18sria.pdf>

Additionally, VERA has concerns relating to §95973(b)(1)(E)(1), which addresses how days are removed when a project is out of regulatory compliance. For determining GHG emission reductions (“ER”) to remove due to a period of noncompliance, the language currently adjusts only half of the emission reductions equation, resulting in stated ERs that are not accurate. In order to properly remove a period of noncompliance, the days must be removed from the entire ER model--both the baseline and project emissions. Removing days only from the baseline while continue to report project emissions is not only overly punitive but also results in an incorrect accounting of the ERs unencumbered by the noncompliance. The efforts we make to report true, accurate and complete emission reductions become meaningless if we utilize this type of accounting.

Update to the Invalidation Provisions

VERA believes the time is ripe for more substantial changes to the invalidation provisions of the Regulation. California offsets have proven to be highly reliable sources of real, additional, quantifiable, permanent, verifiable and enforceable GHG emission reductions. The current invalidation framework of buyer liability limits offset usage for all but the largest entities, thus raising the costs of the program. Given the renewed push for new in-state offset protocols, updating these provisions can be an important consideration in increasing demand for such new developments.

California should consider updating the framework for invalidation such that invalidations due to fraud are covered by seller liability, and invalidations due to material overstatement and regulatory nonconformance are covered by an Environmental Integrity Account or “buffer pool.” VERA has previously commented on this issue and looks forward to addressing this in rulemaking in the near future.

Having a clear and simple mechanism to mitigate risks associated with invalidation should make it easier for stakeholders to participate in the offset market, thus stimulating the development of new offsets projects inside and outside of California and removing an obstacle to access the cost containment benefits provided by emissions reduction projects. VERA understands this change is not anticipated in this rulemaking, but encourages CARB to address at its earliest possible time.

Offset Protocol Task Force

AB 398 recognizes the value of offsets in several ways. One such reaffirmation of offsets is the creation of the Offset Protocol Task Force. This entity is charged with finding *more* offset protocols to use in the program. VERA is supportive of its creation and its work to find additional protocols that provide direct in-state GHG reductions. Such an entity would benefit from having technical and real-world experience in offset development, accounting, verification and trading amongst its members.

Ceiling Price Units

Offsets are also a key component in the concept of a Ceiling Price Unit (CPU). These CPUs need to be real, quantifiable, enforceable, and additional GHG reductions to ensure the environmental integrity of the Program. Such requirements are the definition of offsets. VERA supports the use of offsets as CPU currency. We also support efforts by CARB to initiate processes to secure CPU in advance to the ceiling price being hit in the marketplace. Failure to provide sufficient lead-time could lead to a delayed supply of issued offsets to mitigate

prices from rising to and above the ceiling. The stated goal of the CPU construct is fully satisfied with the use of CARB-approved offsets.

VERA has been working with a multitude of other stakeholders, including non-offset developers, that have previously submitted comments in support of offsets during the informal rulemaking process.¹⁷ These comments highlighted the many diverse reasons to support the offset program. Many commenters presented supporting data and well reasoned arguments on behalf of offsets—VERA supports these well-reasoned positions.

Program Efficiencies

The regulatory package attempts to update some of the more onerous administrative aspects of offset approval and issuance. VERA is appreciative of this effort, but believes more can be done. VERA believes there are a number of steps CARB can take to make the offset program less costly, less time-intensive for staff, more efficient and more transparent. To that end, we offer the following program suggestions for your consideration:

- Reduce review cycle time by adopting a risk-based review to increase efficiency without sacrificing quality. CARB should focus limited staff time on high risk areas that could lead to material impacts on credit issuance while reducing review time when risk is low.
- Rely on accredited third-party verifiers and approved offset project registries as the primary and secondary lines of review.
- Increase review process transparency and communicate guidance to all program participants to reduce ARB staff time while ensuring ARB's interpretations and standards are uniformly implemented.

These administrative efficiencies would benefit both CARB, offset developers and the market waiting for approvals of contracted projects. VERA recognizes that some improvements have been made on a case-by-case basis, but these recommended improvements should benefit the program systemically.

Conclusion

VERA is committed to a robust offsets market and our members are available to answer questions on these recommendations. We look forward to working with CARB on these important regulatory changes. VERA can be reached through Jon Costantino at Tradesman Advisors, via email at jon@tradesmanadvisors.com.

¹⁷ <https://www.arb.ca.gov/lispub/comm2/bccommlog.php?listname=ct-6-21-18-wkshp-ws>