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March 29, 2018

Ms. Rajinder Sahota
California Air Resources Board
1001 I Street
Sacramento, CA 95814

via e-mail at: rsahota@arb.ca.gov

Re: WSPA Comments on CARB's March 2, 2018 Workshop on AB398 Follow-up

Dear Ms. Sahota:

The Western States Petroleum Association (WSPA) is a non-profit trade association representing companies that explore for, produce, refine, transport, and market petroleum, petroleum products, natural gas and other energy supplies in California and four other western states.

WSPA appreciates this opportunity to provide comments on the California Air Resources Board's (CARB) March 2, 2018 workshop which included discussion of the regulatory follow-up and implementation of AB398 and the development of a cost containment mechanism that includes speed bumps and a price ceiling. The comments below address our current thinking on Third Compliance Period, the so-called "over allocation" discussion, the price ceiling and speed bumps.

Third Compliance Period IAF Necessary to Reduce Leakage Risk. AB32 directs ARB to minimize leakage risk as they develop and implement California's climate policies. In order to guard against leakage, academics and economists have advised the state to consider, as part of the design of the cap-and-trade program, a system of allowance allocation that includes industry assistance.

In recognition of this important component of the state's cap-and-trade program, the CARB Board issued Board Resolution 17-21 at its July 2017 Board meeting. The resolution directed staff to "propose subsequent regulatory amendments to provide a quantity of allocation, for the purposes of minimizing emissions leakage, to industrial entities for 2018 through 2020 by using the same assistance factors in place for 2013 through 2017." During past workshops, CARB staff discussed the extension of the previously adopted industry assistance factors, making the important point that such an extension would not mean that entities are allocated all allowances they need to comply with the state's cap-and-trade program. CARB staff correctly highlighted that by 2030 most industrial sectors will receive less than 50% of the allowances needed to cover their compliance obligations.

WSPA and its member companies recognize the important role that third compliance period industry assistance factors play in helping to reduce leakage risk in the sector. As such, we continue to support the CARB Board direction to extend second compliance period industry assistance factors to the third compliance period, thus creating a smooth path to the fourth compliance period.

California's Cap-and-Trade Market Is Not Oversupplied. Based on our initial review, WSPA finds that the cap-and-trade program is working as intended. The program was wisely designed to slowly/gradually tighten, thus allowing adequate time for adjustment in obligated parties' business processes. It is also important to note that after 2020, the annual cap decline factor is increased 3.4% per year, up from 1.7% per year, twice as stringent as pre-2020. A few stakeholders however have tried to make a case that the cap-and-trade market has too many allowances in the program. That assertion is incorrect, and the suggested remedies by some would have the potential to disrupt the stable market that CARB has worked diligently to develop. It will be important to ensure these allowances remain available in the market.

CARB should avoid making the program arbitrarily more stringent mid-stream. Companies have already begun to make investments based on current market dynamics established under the state's cap-and-trade regime. Making significant and arbitrary mid-course corrections would change the factors that informed that decision-making process and is likely to punish entities who have taken early actions to reduce greenhouse gas emissions. Furthermore, it is virtually impossible for obligated parties to develop a compliance strategy based on a moving target. This is the wrong signal to send – especially to other jurisdictions who could be considering linking with California's program. The proposal to remove allowances from the market also disregards the fact that other jurisdictions such as Quebec and Ontario are for the most part net takers in the program. In order to avoid penalizing California's obligated parties, it will be important for allowances to remain available in the regular auctions.

A Binding Price Ceiling and Speed Bumps Provide Effective Safeguards. The state has historically emphasized the importance of having a climate change program that achieves the dual goals of meeting the state's environmental targets while at the same time reduces the potential negative economic impacts of a carbon policy. To that end, AB398 directs CARB to develop a price containment mechanism that includes a price ceiling and two price containment points – speed bumps – which, if reached, would trigger additional allowances to be sold at a to-be-determined price structure. Speed bumps are intended to help ease any panic in the market in the event of a run-up in prices. In order to protect consumers and the economy, AB398 also intended to set a price ceiling in the program that would keep the price of allowances in check, ensuring they would not escalate beyond a certain point. The price ceiling should be considered a point of last resort. Speed bumps are key cost containment points that are meant to stabilize the market, reduce unpredictability, and, if reached, trigger the IEMAC to consider the implications of a rapidly increasing allowance price and how best to respond. Therefore to be effective, the speed bumps must necessarily be placed at a substantial distance below the price ceiling to facilitate the IEMAC's review.

A price floor and price ceiling (referred to as a price collar) are important programmatic features which bound the cap-and-trade allowance prices and are designed to ensure that prices do not dip below a set dollar amount and do not exceed an upper limit. These features help provide predictability to both government policymakers who are concerned about the potential impact that the program could have on their constituents and businesses who must comply with the regulation. It also sets reasonable expectations for carbon investment and discourages speculators.

In their 2015 review of California's cap-and-trade program, Richard Schmalensee of MIT and Robert Stavins of Harvard pointed out that California's cap-and-trade system "greatly reduces the risk of unanticipated allowance price changes and price volatility due to the fact that the program employs an effective price collar."¹ Having such a mechanism to guard against market volatility is vital for the health and sustainability of California's cap-and-trade program.

Discussion Draft Would Not Meet Objective of AB398. The recently released draft concept paper describes initial thinking on the price ceiling mechanism, including placement of speed bumps. According to the concept paper, the price level of the first speed bump would be placed at \$82 (2021), and the ultimate price ceiling would be set somewhere in the range of \$91-\$165 (2021) starting in 2021. By 2030, the price ceiling would increase to a range of \$109-\$198 (assuming an annual two percent inflation rate).

The discussion draft idea for a price ceiling range is problematic. Setting the initial price containment point (the first speed bump) at \$82 (2021) means that, barring emergency action by the Governor, the program would have no built-in cost containment mechanism that could be triggered prior to reaching \$82 in 2021. Thus no safeguard would be in place before hitting a nearly five time increase in allowance prices relative to the expected floor price. This leaves the program – and ultimately businesses and consumers – unnecessarily vulnerable to potential market volatility.

If the cost containment mechanism were to be set at such high price containment points (speed bumps) and price ceiling, there would effectively be no binding speed bumps or price ceiling. Thus CARB would miss the opportunity to put real safeguards in place that would reduce potential market volatility and ultimately help protect consumers. This would not meet the spirit or objective of AB398.

Approach to Voluntary Corporate Carbon Pricing Lacks Analytical Rigor. The draft concept paper includes a reference to the 2016 Carbon Disclosure Pricing (CDP) Report which CARB used in considering the development of a range of price ceilings. WSPA notes three major issues with the use of the CDP report.

First, CARB used the CDP report to help inform the fifth criteria included in AB398 for consideration in developing the price ceiling – that is consideration of the potential for environmental and economic leakage. However, using such a data source is problematic for several reasons. First, this data source is not reflective of other jurisdictions' carbon prices. Rather, the values included in this report are self-volunteered numbers from individual

¹ Lessons Learned from Three Decades of Experience with Cap-and-Trade: Faculty Research Working Paper Seriesile://sacserver2/tiffany\$/WSPA/California/AB32%20WG/Research,%20references%20and%20studies/Stavins%20Schmlansee%20price%20collar%20reference.pdf

companies. Not only does the report introduce self-selection bias, but more importantly companies have different criteria for evaluating their internal prices. It is likely that each company uses their internal carbon price estimate for different purposes, not necessarily as an estimate of future price expectations. Thus this would not represent an apples-to-apples comparison. As such, the CDP report is not an appropriate data source to inform the potential for leakage. In order to inform leakage considerations for price ceiling development, certainly it would be important to consider what the cost of carbon is outside of California. Therefore it would be more appropriate to use data sets that reflect jurisdictional carbon pricing, while providing a means of understanding what the carbon pricing covers and does not cover, what exemptions exist, etc.

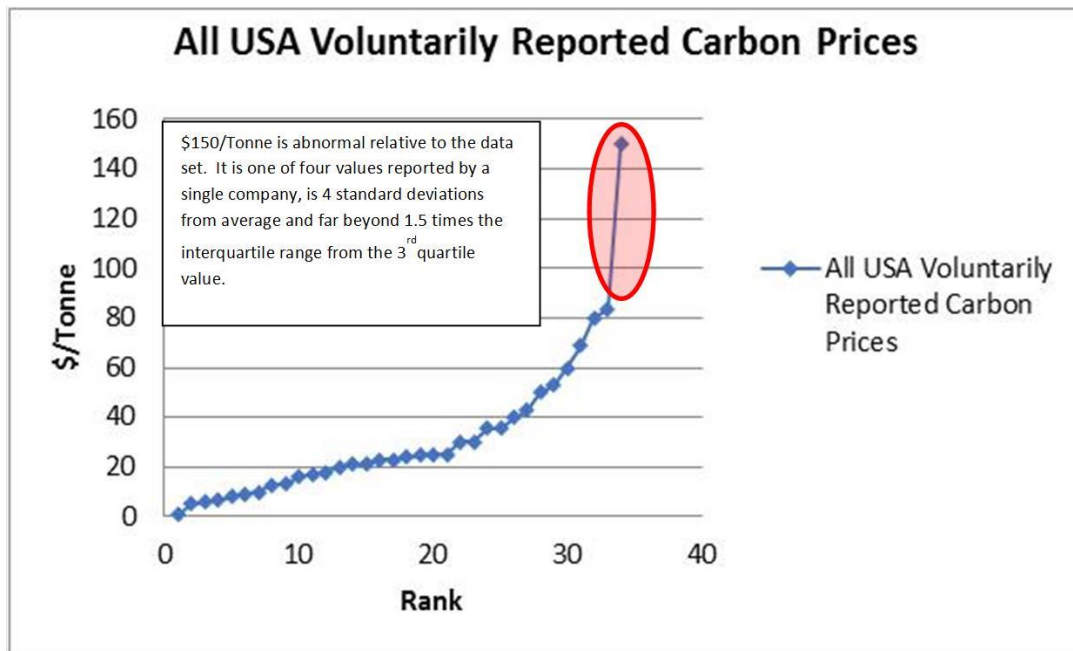
Next, the concept paper mistakenly attributes a \$150 figure to pricing in the United States, when in fact it is used by a US company for pricing in Sweden. This error should be corrected in CARB's next concept paper.

Last, while we find that using voluntary corporate pricing is not a sound means of determining the potential for leakage, whatever data source CARB does use to inform the development of the price ceiling, it should use a statistically sound methodology to evaluate the range of prices in the report in order to derive an analytically meaningful interpretation.

For example, the concept paper cites a value of \$150 from the CDP report as the upper bound value and then suggests that this should be the upper bound of the price ceiling. After analyzing the report, it is clear that arbitrarily picking the highest value in the report and using it as the basis for informing the price ceiling discussion is problematic.

The \$150 quoted in the reference paper is an extreme value, unrepresentative of the 34 values reported by the 22 United States Companies in the October 2017 CDP report. If the report is used at all, it should be considered based on its entire content and the possible context of data reported by the contributing companies. While statistics provide only a numerical approach for characterizing data, the \$150 reported as one of 4 prices by a single company, is a statistical outlier.

In examining the table of US companies in the CDP report, we found that some companies reported only one price, while some companies reported as many as 4 different prices. Two tests can be used to determine if the reported prices are representative and within the statistical norm.



In applying the simple interquartile test, we found that the data point of \$150 per tonne is abnormally high (outside of the statistical norm) and therefore should be excluded from consideration.

The Grubb test utilizes the standard deviation of the data set, the difference between a value and the average divided by the standard deviation and the statistical t-distribution to determine if a point is outside the statistical norm. Using this test, \$150 per tonne (the highest of 4 prices reported by Stanley Black and Decker), was far outside the Grubb test norm and should be excluded from consideration.

Thank you for your consideration of these critical points. We would be happy to further discuss any of the information included here. If you have any questions, please contact me at this office at (916) 325-3088 or email troberts@wspa.org.

Thank you,

Tiffany Roberts

cc: Richard Corey – CARB
Edie Chang – CARB