Western States Petroleum Association

Tiffany Roberts
Director, Policy and Regulatory Affairs

October 22, 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 Proposed Rulemaking Package on AB398 Implementation – Letter 2 – Third Compliance Period, Oversupply, and Hydrogen Cap Decline Factor

Dear Ms. Sahota:

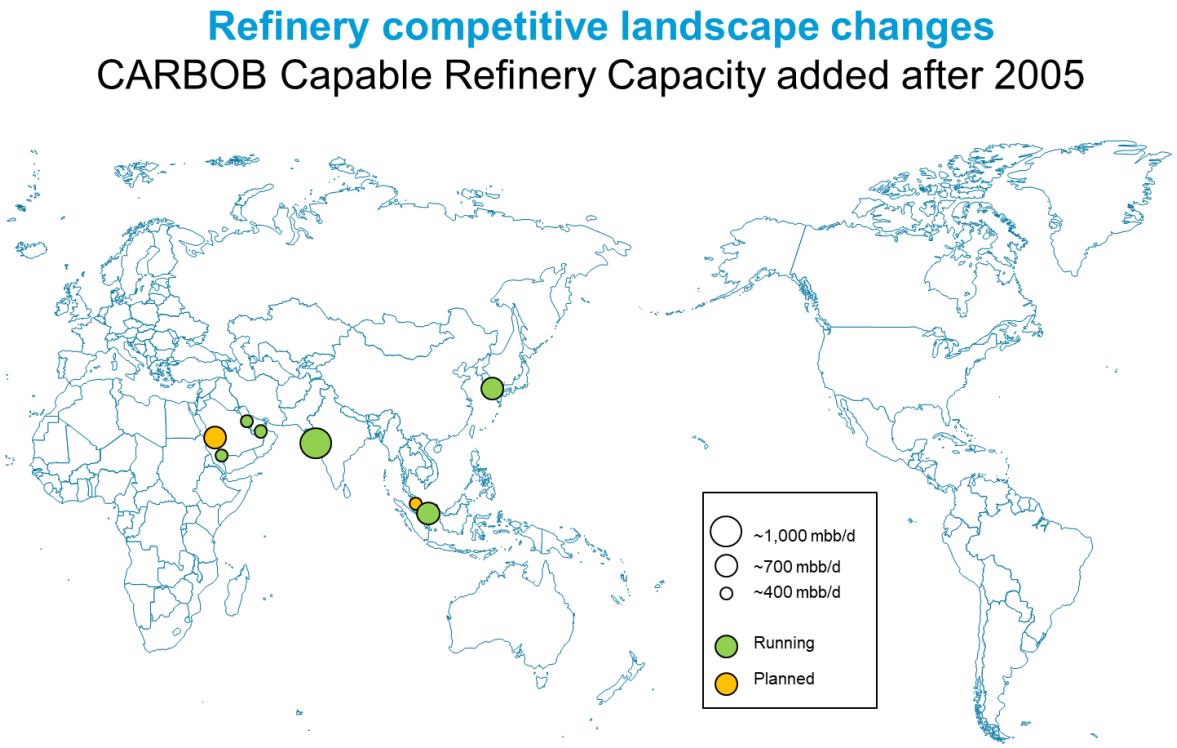
The Western States Petroleum Association (WSPA) is a non-profit trade association which represents companies that explore for, produce, refine, transport, and market petroleum, petroleum products, natural gas and other energy supplies in California and four other western states.

WSPA appreciates this opportunity to provide comments on the California Air Resources Board's (CARB) AB398 45-day package. The comments below provide our input on the Third Compliance Period Industry Assistance Factors (IAF), the so-called Oversupply Issue, Post-2020 Cap Adjustment Factor for Hydrogen, and Offsets.

Third Compliance Period IAF Necessary to Reduce Leakage Risk. AB32 directs CARB to minimize leakage risk as it develops and implements 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.

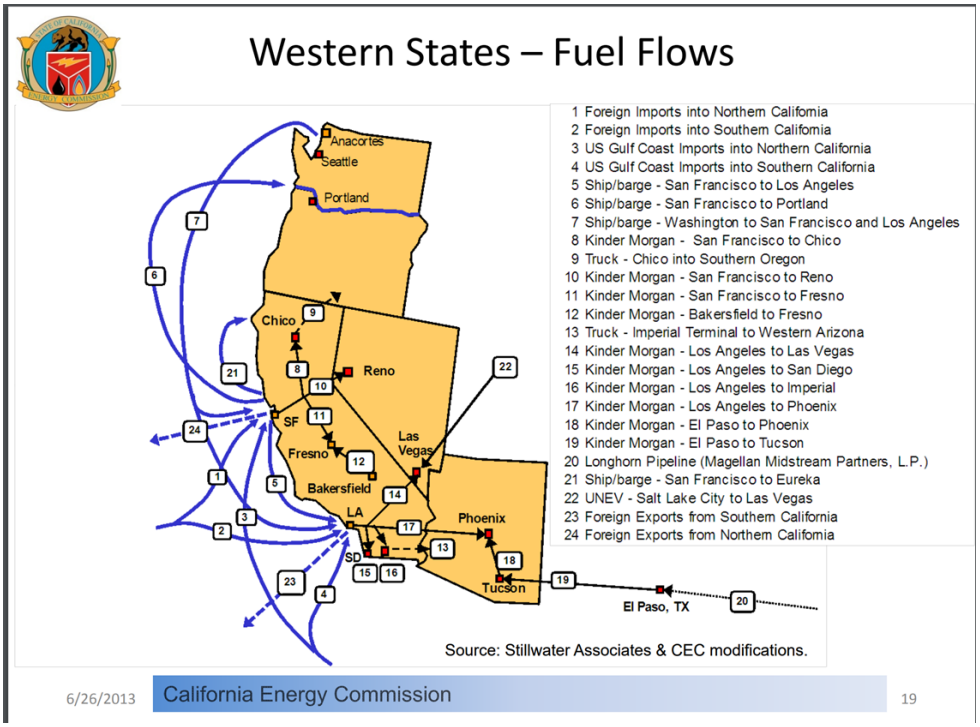
As the cap continues to decline and opportunities for additional emission reductions become increasingly scarce and expensive, there is a greater need for industry assistance in emissions allocations to insulate in-state companies from the competitive disadvantage that would be created relative to out-of-state competitors who do not incur the same level of carbon pricing. From a global perspective, the need for industry assistance in California diminishes only when other jurisdictions implement carbon reduction programs equivalent in cost and scope that level the playing field within regulated sectors. As CARB is aware, the response from other jurisdictions has been slow and limited in scope. Furthermore, competition is changing.

The below graphic illustrates additional CARBOB production capacity added in refinery projects in Asia and East Africa since 2005. These refineries have the capability to supply Pacific Rim countries and states including California. This continues to demonstrate that the California refining sector is trade exposed[1].



Additionally, the below graphic from the California Energy Commission (CEC) demonstrates the complexity and interdependence of petroleum product movements in the western United States. As shown in a presentation titled "The Transportation Fuel Supply/Demand Balances" for the CEC's 2013 Transportation Energy Demand Forecast, CEC has illustrated how product moves between California and other countries, and between California and other states. California refineries compete with refineries in these other regions.

[1]References:
https://www.wsj.com/articles/saudi-plans-to-be-second-largest-exporter-of-refined-oil-products-1424879035
http://www.ogj.com/articles/2016/06/petronas-updates-progress-on-malaysian-rapid-project.html
http://www.marketwatch.com/story/jazan-gas-projects-company-breaks-ground-on-worlds-largest-industrial-gas-facility-2016-07-14



As these graphics demonstrate, California refiners still face competition from outside of the state. An indicator of this growing competition is the more than tenfold increase in gasoline exports from the PADD5 refineries between 2007 and 2017, indicating significantly increasing international market exposure.

In recognition of the need to address potential leakage that can occur as a result of the implementation of the state's cap-and-trade program, the CARB Board issued Board Resolution 17-21[2] 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 has 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 and staff proposal to extend second compliance period industry assistance factors to the third compliance period, thus creating a smooth path to the fourth compliance period.

[2] https://www.arb.ca.gov/board/res/2017/res17-21.pdf

Upon approval of the second period industry assistance factors to the third compliance period, there will be a need for CARB to make a true-up correction to allocation for calendar years 2018 and 2019. The current regulation already has provisions to accomplish this. WSPA appreciates the flexibility already built into the Regulation. Section 95870(e)(1) – Disposition of Vintage 2013-2020 Allowances, Allocation to Industrial Covered Entities – states "The Executive Officer will allocate allowances to each eligible covered entity *by October 24* of each calendar year 2014-2019 for allocations from 2015-2020 annual allowance budgets." There is nothing in the regulation that prohibits this action earlier in the year. This is a special circumstance that justifies such an early action by CARB. WSPA requests that CARB use the flexibility already built into the regulation and provide a true-up allocation to correct for 2018 and 2019 vintages by June 1, 2019. WSPA believes this can be done without regulation change and asks that CARB build this into 2019 plans and provide appropriate guidance.

California's Cap-and-Trade Market Is Not Oversupplied. CARB staff has correctly found that the state's climate initiatives have collectively achieved more emission reductions than forecasted[3]. Rather than focusing on the positive news that California is doing better than expected in achieving its climate goals, a few stakeholders have tried to make the case that because of this over-performance, allowances should be removed from the market. The assertion is baseless, and the suggested remedies would have the potential to disrupt the stable market that CARB has worked diligently to develop.

The cap-and-trade program was wisely designed to slowly/gradually tighten, thus allowing adequate time for adjustment in obligated parties' business processes. It is 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. Debates about oversupply inevitably involve debates about allowance banking since the perceived concern about oversupply arises from a fear that allowance banking allows entities to avoid reducing emissions. Allowance banking, however, *promotes early investment in emissions abatement measures* and plays an important cost containment role, without compromising environmental integrity[4].

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 are for the most part net takers in the program. In order to avoid penalizing California's obligated parties, we support CARB staff's recommendation to maintain these allowances in the regular auctions.

Hydrogen Cap Adjustment Factor. CARB staff has indicated it will review manufacturing activity-specific data if stakeholders demonstrate that the NAICS 6-digit classification does not

[3] https://www.arb.ca.gov/cc/capandtrade/meetings/20180621/ct_pres062118.pdf
[4] https://www.arb.ca.gov/lists/com-attach/57-ct-3-2-18-wkshp-ws-BmpXJlMNU28Lewdi.pdf

represent the activities conducted at the covered industrial facilities. The NAICS classification for industrial gases represents a broad range of activities, inclusive of hydrogen production. Hydrogen is an important feedstock for refineries that is essential for production of the high-quality, clean fuels that CARB's specifications demand. The preponderance of hydrogen produced in California and globally is supplied to refineries. This link is well-understood in California as well as other jurisdictions such as the EU, which assesses hydrogen alongside its refineries.

CARB has stated three criteria for sectors that should be assessed with a more favorable cap decline factor. These are:

- *Process Emissions* – CARB's criterion for this metric is that process emissions should be at least 50% of total emissions. For hydrogen manufacturing, this criterion is met. In the 2010 final statement of reasons, CARB did not contest the comments offered by Air Liquide and the Industrial Gases Panel of the American Chemistry Council that hydrogen plants had >50% process emissions. The average emissions intensity for hydrogen production, based on data included in CARB's February 26, 2014 white paper titled, "Proposed Benchmarks for Refineries and Related Industries," is 9.9 tons CO2e per ton of hydrogen production. Process emissions to produce hydrogen are 5.5 tons based on conversion of methane to hydrogen and consistent with Ontario's benchmark for fixed process emissions. Based on this information, process emissions for California hydrogen producers are over 55% of total emissions.

- *Leakage Risk* – CARB's criterion for this metric is that the industry be at high risk of leakage. In 2010, CARB established a position that the leakage risk of hydrogen production was the same as petroleum refining. At the time, the leakage risk of petroleum refining was established as medium. Leakage risk, however, is not constant. Large foreign refineries now have the capacity to produce clean California products, increasing the possibility of imports. California's goal of reducing the use of fossil fuels for transportation may increase the importance of exporting fuels produced by California's tightly regulated petroleum refining sector. An analysis of recent trade and production data confirms these trends. Trade intensity at the national and regional levels has increased substantially since staff's ISOR, published in October 2010, concluded a medium leakage risk. National trade intensity has increased from an average of 20% in 2003-2008 to an intensity of 26% in 2013-2016, when stationary sources came into the program. Similarly, regional level trade intensity has increased even more dramatically, rising from 13% in 2003-2008 to 19% in 2013-2016. Per CARB criteria, refining and associated hydrogen production should be deemed at high risk of leakage. The detailed data that substantiates this is provided in Appendix A.

- *Emissions Intensity* – CARB's criterion for this metric is that the production result in greater than 5000 mt of CO_2e/M$ value added. A review of hydrogen plant emissions and the fixed and variable costs of hydrogen[5] indicates that the emissions intensity of hydrogen production is greater than 10,000 MTCO2e/M$.

[5] Ratan, Farnand and Li, Hydrogen perspectives for 21st century refineries, Hydrocarbon Processing, September 2014.

Based on CARB's criteria above being met, hydrogen production for refining should be immediately provided a reduced cap decline factor with effect from the third compliance period.

Offsets. WSPA supports the continued use of offsets as an important cost-containment provision within the regulation. We also appreciate staff's proposed requirements to describe what constitutes "Direct Environmental Benefits (DEBS) in the State" in §95989, as well as, how to implement DEBs requirements under AB 398. This approach will provide certainty to in-state offset projects and a pathway for out-of-state projects to secure a DEBS determination, if appropriate.

WSPA also strongly supports CARB's larger vision to expand the supply of national and international offsets to encourage greater global participation and large-scale natural lands GHG emission reduction and carbon conservation. We are encouraged that CARB is restarting positive conversations and potential rulemaking for tropical forest opportunities. We also look forward to continuing to work with CARB staff to improve the process to issue CA-certified offsets.

Thank you again for consideration of these comments. 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,
Director, Policy and Regulatory Affairs
Western States Petroleum Association

cc: Richard Corey – CARB
Edie Chang – CARB

Appendix A

Trade Exposure Experience Since CARB 2010 Cap-and-Trade Program Internal Statement of Reasons [1]

ALL FIGURES IN $bln

NATIONAL DATA

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Production 324xxx[2]	587.2	714.5	466.5	590.3	790.8	740.0	802.7	802.2	478.8	407.8
Exports 324xxx[3a]	31.0	58.4	41.5	61.0	100.9	110.3	118.4	116.8	78.0	65.8
Imports 324xxx[3b]	102.3	130.6	75.1	102.2	141.2	135.5	124.4	113.1	67.9	55.2
ACES Trade Share[4]	19.3%	22.4%	21.5%	23.6%	26.0%	28.1%	26.2%	25.1%	26.7%	26.1%
Per ARB App K ("Customs")[5]	19%	22%								
Average 2003-2008 (per ARB)[5]		20%								
Average 2013-2016 (per analysis) - when California Cap &Trade program became effective for stationary sources > 25 kt/yr										*26.0%*

REGIONAL DATA

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Production 324x[2]	79.5	100.6	64.4	71.9	96.5	90.5	83.6	87.0	58.4	45.9
Exports 324x[3a]	2.5	5.8	3.2	4.3	6.2	6.0	6.3	7.1	4.3	3.0
Imports 324x[3b]	9.8	9.2	4.3	8.1	10.6	10.9	10.7	11.2	8.4	6.8
ACES Trade Share[4]	13.8%	13.7%	10.9%	15.5%	15.7%	16.7%	18.0%	18.6%	19.0%	18.6%
Per ARB App K ("Customs")[5]	14%	14%								
Average 2003-2008 (per ARB)[5]		13%								
Average 2013-2016 (per analysis) - when California Cap &Trade program became effective for stationary sources > 25 kt/yr										*18.6%*

NOTES:

1. See Appendix K in PUBLIC HEARING NOTICE AND RELATED MATERIAL, Posted October 28, 2010 at https://www.arb.ca.gov/regact/2010/capandtrade10/capandtrade10.htm
2. Production data from query at https:factfinder.census.gov, column "Total Value of Shipments and Receipts for Services". By Calendar Year, for all NAICS codes 324xxx.
3a. Export data from query at https:usatrade.census.gov, column "Domestic Exports Value". For "regional data" is sum of ports of San Francisco, San Diego and Los Angeles. By calendar year for all NAICS codes 3
3b. Import data from query at https:usatrade.census.gov, column "Customs Import Values (Cons)". For "regional data" is sum of ports of San Francisco, San Diego and Los Angeles. By calendar year for all NAICS
4. ACES as defined at K20 in document referenced in Note 1, including definition of data utilized by ARB for "production," exports" and "imports" for equation at K20.
5. Figures reported by ARB in table at K23 in document referenced in Note 1.