

UPDATED INFORMATIVE DIGEST

REGULATION TO IMPLEMENT THE CALIFORNIA CAP-AND-TRADE PROGRAM

Sections Affected: Amendments to Subchapter 10 Climate Change, Article 5, sections 95802, 95811, 95812, 95813, 95814, 95830, 95831, 95832, 95833, 95834, 95840, 95841, 95841.1, 95851, 95852, 95852.1, 95852.2, 95853, 95856, 95857, 95858, 95870, 95890, 95891, 95892, 95893, 95894, 95895, 95910, 95911, 95912, 95913, 95914, 95920, 95921, 95922, 95941, 95943, 95972, 95973, 95974, 95975, 95976, 95977, 95977.1, 95978, 95979, 95980, 95980.1, 95981, 95981.1, 95983, 95985, 95987, 95990, 96014, and Appendix C, title 17, California Code of Regulations (CCR) and adoption of new sections 95803, 95835, 95859, 95871, 95944, 95945, new Appendix D, and new Appendix E, title 17, CCR.

Background: The California Global Warming Solutions Act (Assembly Bill 32; Stats. 2006, Chapter 488) (AB 32), as amended by recently enacted Assembly Bill 398 (Stats. 2017, Chapter 135) (AB 398), authorizes the California Air Resources Board (ARB or Board) to implement a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. This act authorized the use of a market-based compliance mechanism. The California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms (Regulation or Program) was developed as a key element of California's GHG emissions reduction strategy; it is designed to complement other measures to ensure the State's 2020 GHG target is met while maintaining robust growth. The Regulation was originally adopted by the Board in October 2011, with additional amendments approved for adoption by the Board in June 2012, April 2013, April 2014, September 2014, and June 2015.

In 2016, Senate Bill 32 (Stats. 2016, Chapter 249) (SB 32) further required the Board to ensure that statewide GHG emissions are reduced to 40% below the 1990 level by 2030. In response to continued Board direction and discussions with stakeholders, ARB staff began a public process in October 2015 to propose additional amendments to the Regulation for Board consideration. In developing the amendments, ARB staff held eleven publicly noticed workshops and released four discussion papers and three research papers on amendment topics that warranted special attention. Public discussion of the Regulation amendments was also included in a meeting of the Environmental Justice Advisory Committee. In addition, ARB staff held numerous meetings with stakeholders to discuss specific topics related to the amendments. These forums provided ARB staff and stakeholders opportunities to discuss initial regulatory concepts and potential alternatives, and the amendments incorporate many aspects of these discussions.

Description of the Regulatory Action: The amendments to the Regulation, as adopted, would establish linkage with Ontario starting in January 2018; revise the requirements for unsold allowances and allowance vintages available in the Current Auction; continue the allocation of allowances to utilities on behalf of rate-payers; simplify participation in the Program by streamlining registration, auction participation,

information management, and issuance of offset credits; provide for California compliance with the federal Clean Power Plan (CPP); and establish the framework for new emissions caps and limited other provisions needed to implement the Program after 2020. Per Board Resolution 17-21, ARB will initiate a new rulemaking process to implement the AB 398 requirements for the full design of the post-2020 Cap-and-Trade Program.

Anticipated benefits of the amendments include reducing statewide GHG emissions to 40 percent below 1990 levels by 2030 in accordance with SB 32 and Executive Order B-30-15. Given the reductions in GHG emissions and other associated emissions that will occur because of the Program, these amendments may also directly improve the health and welfare of California residents, and the State's environment. Moreover, expanding the number of sources that are able to trade allowances via Program linkage reduces the overall cost of achieving emissions reductions and improves the efficiency of the Program. Additional benefits include improved clarity for covered entities regarding allowance allocation, compliance timelines, and offset program implementation. The amendments will also improve cost-containment, enhance market monitoring, and clarify the emissions reductions that are achieved by the Program.

The amendments to the Regulation were initiated with the publication of a notice in the California Notice Register on August 5, 2016 and notice of public hearing scheduled for September 22, 2016.¹ A Staff Report: Initial Statement of Reasons, entitled "Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms" (Staff Report or ISOR), which is incorporated by reference herein, the full text of the proposed regulatory amendments, and other supporting documentation were made available for public review and comment starting on August 5, 2016, running for 45 days through to September 19, 2016.²

The Board was informed of proposed amendments to the Regulation and received written and oral comments at the September public hearing but did not take action on the proposal.

ARB released a Notice of Public Availability of Modified Text and Additional Documents and/or Information (First 15-Day Notice) on December 21, 2016, which placed additional documents into the regulatory record and presented modifications to the regulatory text in response to public comments made during the 45-day comment period and September 22, 2016 public hearing as well as additional staff analysis.³ A second Notice of Public Availability of Modified Text and Availability of Additional Documents

¹ Office of Administrative Law, California Regulatory Notice Register (Aug. 5, 2016), available at: <https://www.oal.ca.gov/wp-content/uploads/sites/28/2017/05/32z-2016.pdf>. ARB posted this information in advance of the 45-period comment period—on August 2, 2016—per direction in Assembly Bill 1085 (Stats. 2009, Chapter 384).

² All public comments received on the proposed amendments can be found online at: <http://www.arb.ca.gov/lispub/comm/bccommlog.php?listname=capandtrade13>.

³ California Air Resources Board. Notice of Public Availability of Modified Text and Availability of Additional Documents and Information. Posted December 21, 2016. Available online at: <https://www.arb.ca.gov/regact/2016/capandtrade16/capandtrade16.htm>.

and Information (Second 15-Day Notice) was released on April 13, 2017, which placed additional documents into the regulatory record and presented further modifications to the regulatory text reflecting staff analysis and consideration of public comments on the amendments proposed in the First 15-Day Notice.⁴

Modifications made after the first 45-day proposed regulatory amendments include: a temporary “bridge” solution to address GHG emissions associated with the California Independent System Operator’s (CAISO) Energy Imbalance Market (EIM) by retiring unsold allowances in the amount of underreported EIM emissions while staff continues to work with CAISO to develop a long-term solution; post-2020 retention of the RPS adjustment for electrical distribution utility compliance obligations; further updates to product-based emissions efficiency benchmarks; addition of assistance factors for new industrial sectors; revision to the single-tier price for the post-2020 Allowance Price Containment Reserve (APCR) from a fixed \$60 to be set at a fixed amount (~\$60 in 2021) above the auction floor price; and reduction of natural gas supplier annual allowance consignment requirements from reaching full consignment in 2021 to reaching full consignment in 2030. Proposals concerning post-2020 industrial allocation are removed from this rulemaking; staff intends to propose assistance factors in a future rulemaking in time for the post-2020 allocation pursuant to the requirements of AB 398. Additional modifications were made to provisions concerning registration and disclosure requirements for Program participants, calculation of limited exemptions, requirements for offset projects, and administration of auctions and reserve sales to improve clarity and ensure consistency of terminologies and references within the Regulation and with the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR), as applicable, and that relevant provisions are harmonized with the linked programs in Ontario and Québec. Full details of these 15-day revisions, along with full text with each change clearly notated, are available online at: <https://www.arb.ca.gov/regact/2016/capandtrade16/capandtrade16.htm>.

At its second public hearing regarding the Regulation on July 27, 2017, the Board approved Resolution 17-21, certifying the environmental analysis, approving the written responses to environmental comments, making required CEQA and other findings, and adopting the final regulatory amendments. The Resolution also directed the Executive Officer to finalize the Final Statement of Reasons (FSOR) for the regulatory amendments and to submit the final rulemaking package to the Office of Administrative Law for review. The FSOR provides written responses to all comments received on the amendments during the 45-day and 15-day comment periods, during the September 22, 2016 Board hearing, and during the final July 27, 2017 Board hearing.

Below is a summary of amendments to the Regulation. A more detailed description of the initial amendments appears in the Summary and Rationale section of the Staff Report.

⁴ California Air Resources Board. Second Notice of Public Availability of Modified Text and Availability of Additional Documents and Information. Posted April 13, 2017. Available online at: <https://www.arb.ca.gov/regact/2016/capandtrade16/capandtrade16.htm>.

Summary of Modifications

A. Setting Emissions Caps

The amendments establish a framework for annual GHG allowance budgets for the post-2020 Program; these budgets prescribe the number of allowances that will be issued by ARB, and thereby set the emissions caps. As with the existing annual caps through 2020, the amendments set a cap trajectory for the post-2020 Program that provides a gradual GHG emissions reduction path toward the 2030 and 2050 targets. The amendments also include an initial annual allowance budget formula for 2031 through 2050 to signal the long-term trajectory of the Program and inform investment decisions. As mentioned previously, ARB will initiate a new rulemaking process to implement the AB 398 requirements for the post-2020 Cap-and-Trade Program, and staff recognizes the equation for the caps from 2031 to 2050 will also need to be refined as part of a post-2030 program discussion for meeting the long-term 2050 target.

B. Allowance Price Containment Reserve

The amendments include post-2020 continuation of the APCR, a pool of allowances sold at a pre-established price should auction prices get too high. The amendments will transfer allowances to the APCR if they remain unsold at auction for more than 24 months (and not retired in 2018 or later to recognize underreported EIM emissions). Any allowances remaining in the APCR at the end of 2020 will roll over into the post-2020 APCR. Post-2020 APCR will collapse the three tiers of the existing Reserve into one tier with a single price tier set at a fixed amount (~ \$60 in 2021) above the auction floor price, and the fixed amount will increase annually with inflation.

C. Western Climate Initiative and Linkage with Ontario, Canada

The Program is linked with the cap-and-trade program in the Canadian province of Québec and the amendments include linkage with the new cap-and-trade program of Ontario, Canada, starting in 2018. Linking with other programs expands the number of sources that are able to trade allowances, which reduces the overall cost of achieving emissions reductions and improves the efficiency of the allowance market. In addition, an expanded, linked Program can result in greater emissions reductions relative to the stand-alone California Cap-and-Trade Program because each linked partner jurisdiction also achieves emissions reductions.

D. Linkage with External Greenhouse Gas Emissions Trading Systems and Programs

The amendments include two new forms of agreement with other jurisdictions that would not require the same level of bilateral integration or equivalency as the California-Québec style linkage. The first type would allow entities in California to retire compliance instruments issued by another GHG emissions trading system (ETS) to meet their compliance obligation in California (Retirement-Only Limited Linkage).

Implementation of this type of linkage would require a Board-approved linkage agreement and Senate Bill 1018 (SB 1018, Stats. 2012, Chapter 39) linkage findings prior to Board approval.

The second form would allow entities registered in a non-California GHG Program to retire California compliance instruments to meet obligations in their own program (Retirement-Only Agreement). The term “program” encompasses GHG ETS as a specific kind of program, but is not limited to an emissions trading system. SB 1018 findings would not be required for this type of agreement. For either of these agreements to be reached, there would be a formal rulemaking and public process with a final step of Board approval.

E. Compliance with the Federal Clean Power Plan

There are several amendments that will support California’s compliance with the federal Clean Power Plan (CPP), a set of control requirements promulgated by U.S. EPA for GHG emissions from existing electrical generating units (EGU). The amendments would allow compliance by EGUs with the Regulation to demonstrate California’s compliance with CPP as well. The amendments include alignment of Program compliance periods with CPP compliance periods, including an initial bridge period to link the two programs; requirements for all CPP affected EGUs to participate in the Program; provisions setting interim mass targets and final mass targets for aggregate emissions from affected EGUs; and provisions establishing federally enforceable backstop emissions standards.

F. Allowance Allocation

The same general approaches to calculating allowance allocation for industrial facilities, electrical distribution utilities (EDUs), natural gas suppliers, public wholesale water agencies, universities and public service facilities, and legacy contract generators with industrial counterparties are retained in the amendments. However, there are some modifications made to allowance allocation provisions.

For allocation to industrial covered entities in the third compliance period, the amendments include changes to update some product-based benchmarks using data that more accurately represent the current sector makeup, eliminate some product data benchmarks, define products such that they align with data reported to ARB in prior product benchmark processes, streamline product benchmarks in the fluid dairy sector, and align benchmarks to ensure that entities producing the same products are allocated to under the same benchmarks. The amendments eliminate the product-based benchmarks for nut and tissue products and shift to energy-based benchmarks for these sectors because of technical challenges and data availability. The amendments also include leakage risk assessments and assistance factors for newly covered sectors.

Post-2020 allowance allocation to industrial covered entities is not included in this proposal. However, staff is committed to including post-2020 industrial allocation in a

future rulemaking to be effective prior to the date of the first post-2020 allocation, consistent with the requirements of AB 398.

For allocation to EDUs, the amendments include calculations of post-2020 allocation to be based on projected Cap-and-Trade Program cost burden. These calculations allocate allowances to each EDU based on their projected electricity load (demand) and the power sources used to meet that load. Compared to EDU allocation calculations for 2013-2020, post-2020 allocations incorporate increasing use of Renewables Portfolio Standard (RPS)-eligible electricity but do not incorporate a cap adjustment factor, recognizing that RPS and other requirements already result in GHG reductions from the electricity sector. Post-2020 allocations were calculated separately for each EDU rather than calculating a sector-wide allocation and apportioning it among EDUs. Most forecasts used for these calculations are from forms submitted to the California Energy Commission, with supplemental public information used in cases where the standard forms are not available or recent data show that previous post-2020 assumptions are not valid. In a future rulemaking, staff intends to evaluate increasing consignment requirements for public owned utilities and adjusting post-2020 EDU allocation to account for increased electrification, particularly in the transportation sector.

Post-2020 allocation to natural gas suppliers will continue to be based on 2011 natural gas use and the cap decline factor, as under the existing regulation. The amendments continue to increase the percentage of allocated allowances natural gas suppliers are required to consign to auction by five percent per year, to reach full consignment in 2030. The limited exemption of emissions from qualified thermal output for operators of cogeneration facilities and district heating facilities is extended until natural gas suppliers are required to consign all allowances to auction, i.e. through 2029.

The amendments include several changes and clarifications to allowed uses of allowance value by EDUs and natural gas suppliers that would be implemented starting in 2018. There is a new requirement that EDU allocated allowance auction proceeds not be returned to ratepayers in a volumetric manner. This requirement would increase alignment between EDU and natural gas supplier use of allowance value requirements. The amendments also create a 10-year deadline for spending allocated allowance auction proceeds to ensure that this value is expended within a reasonable period. Reporting on use of EDU and natural gas supplier allowance value is amended to focus on allocated allowance auction proceeds spent during the previous year rather than received for the previous year so that the use of value carried over from earlier years must be reported.

The amendments also clarify the regulatory requirements for return of allocated allowances to ARB when an entity does not operate under the activity for which it was provided allocation or when the entity does not have a compliance obligation.

G. Covered Sectors, Covered Entities, and Exempt Emissions

Most covered sectors, entities, and emissions remain the same under the amendments as under the existing regulation. The amendments make selected changes to provisions that define which entities and emissions are covered by the Program. These changes generally aim to provide more equitable treatment of facilities and emissions that are covered by the Program and to enhance the environmental benefits of the Program.

To harmonize with MRR, the amendments include changing the entity that incurs the compliance obligation for emissions associated with imported liquefied petroleum gas (LPG) from the consignee to the importer of the LPG. The amendments also provide limited exemption of emissions for liquefied natural gas suppliers for the second compliance period to address the potential for emissions leakage created by a mismatch in the points of compliance between MRR and the Regulation.

Emissions from direct combustion of municipal solid waste at waste-to-energy facilities were exempt from the Program from 2013 through 2015, and the amendments extend the exemption through the second compliance period. Waste-to-energy facilities will no longer be exempt beginning in 2018.

The amendments extend the limited exemption of emissions from qualified thermal output for operators of cogeneration facilities and district heating facilities until 2029, the year before natural gas suppliers are required to consign all allowances to auction.

The amendments also allow a covered entity that is eligible to exit the Program due to reduced annual emissions that were below the threshold for an entire compliance period to remain in the Program as an opt-in covered entity if the entity so chooses.

H. Electricity Sector

The current accounting system in place for imported electricity through the CAISO's EIM poses challenges for the requirement of AB 32 that ARB account for the total GHG emissions in the State, including all GHG emissions from the generation of electricity delivered to and consumed in California. Because the EIM cost optimization model may not in all cases report the full GHG burden experienced by the atmosphere as a consequence of the electricity consumed in California, resulting in emissions leakage, ARB staff has proposed to retire unsold allowances to cover these emissions. This approach constitutes a "bridge" solution until such time as CAISO adjusts its EIM accounting methods to fully account for GHG effects.

CAISO is in the process of developing amendments to its EIM tariff and underlying tracking systems to address this issue. CAISO's proposed changes are intended to more accurately capture incremental behavior, and emissions, from power plants importing power to California in response to changes in California load. However, these proposed changes are still being developed and will not be in place during data year

2017, and potentially not during reporting year 2018. The “bridge” solution retires unsold allowances in the amount of underreported EIM emissions while staff continues to work with CAISO to develop a long-term solution to ensure full accounting of imported electricity emissions from transfers within CAISO EIM.

The amendments modify the eligibility requirements for Voluntary Renewable Electricity (VRE) program participation to permit allowance retirement for electricity generation from solar installations interconnected with the distribution system of a California EDU, permit allowance retirement for Renewable Energy Credits as long as they have not been used for compliance in any other program, and continue to permit allowance retirement for solar generation that has received an incentive under California’s Solar Initiative Programs. Additional modifications specify how allowance retirement will be allocated among VRE applicants during the year in which the VRE account is exhausted and clarify requirements for documentation of generator eligibility. Staff has not proposed to allocate any additional allowances to the VRE Reserve Account because requests for VRE retirement have been much lower than anticipated. The amendments include several changes to provide greater clarity and eliminate language that is no longer necessary.

In addition, the amendments remove the exemption of emissions from qualified exports in the third compliance period to ensure that emissions leakage is minimized to the extent feasible, as required by AB 32.

I. Compliance Offset Credits

The amendments clarify and modify aspects of offset program implementation. These amendments address listing and delegation requirements, regulatory compliance, changes in law, Authorized Project Designee requirements, offset project listing requirements, project transfer requirements, monitoring and reporting requirements, verification requirements, verification body requirements, offset credit issuance, forestry reversals, invalidation, and the early action program.

The amendments include modifications to clarify that Livestock and Mine Methane Capture projects could have ARB offset credits invalidated for a more limited time period instead of risking the entire reporting period and to provide additional time for a verified estimate of carbon stocks after an unintentional forestry offset reversal to allow for salvage harvesting, reinventory, and verification.

J. Registration in CITSS

The amendments further clarify and consolidate registration requirements in a single subarticle of the Regulation. These amendments include changes to provisions that direct a covered entity to register in the jurisdiction in which the entity incurs a compliance obligation; streamline provisions on designating and changing account representatives and corporate association disclosure requirements; and specify the

requirements and process for changing entity type and entity accounts to improve clarity, internal consistency, and implementation efficiency.

K. Auction and Reserve Sale Administration

The amendments include modifications to provisions that describe the administration and format of auctions and sales of allowances from the Allowance Price Containment Reserve (Reserve sales) to provide clarity, internal consistency, and improvements for implementation efficiency.

Comparable Federal Regulations: There are no federal regulations comparable to the Cap-and-Trade Regulation.

Changes to Underlying Laws: AB 398 amends provisions of AB 32, and ARB will initiate a new rulemaking process to implement the AB 398 requirements for the post-2020 Cap-and-Trade Program. AB 398 does not adversely affect the statutory authority governing adoption of this regulation; rather, AB 398 provides further support for the regulation's adoption.

Changes to the Effect of the Regulation: None.