

# Amendments to Cap-and-Trade Regulation Workshop

*March 2, 2018*



# Workshop Materials and Submitting Comments

- Presentation and other materials:  
<http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm>
- Presentation webcast: <https://video.calepa.ca.gov/>
- Written comments may be submitted until 5 pm (PDT) Friday, March 16, 2018, at this site:  
<http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm>
- During this workshop, e-mail questions to:  
[auditorium@calepa.ca.gov](mailto:auditorium@calepa.ca.gov)

# Agenda

- ▣ Introduction
- ▣ Program Topics
  - ▣ Allowance Allocation
  - ▣ Post-2020 Cost Containment Features
  - ▣ Allowance Banking
  - ▣ “Overallocation”
  - ▣ Offset Usage Limits and Direct Environmental Benefits
  - ▣ Outstanding Compliance Obligations
  - ▣ Other Potential Changes
- ▣ California Environmental Quality Act (CEQA)
- ▣ Public Engagement and Next Steps
- ▣ CAISO EIM Presentation 11:45am – 12:30pm

# Introduction

- Final 2017 Scoping Plan includes Cap-and-Trade Program to achieve 2030 GHG target
  - SB 32 requires emissions to be 40% below 1990 levels by 2030
- Development of regulatory amendments to reflect conformance with AB 398 and in response to direction in Board Resolution 17-21
- Today's focus: present and seek feedback on potential changes to the regulation, as presented in workshop materials, and review process and schedule

# Allowance Allocation: Legacy Contracts

- Preliminary Discussion Draft (PDD) includes placeholders for potential regulatory language
- Staff will continue to work with legacy contract generators with non-industrial counterparties to encourage renegotiation and to determine if post-2020 allocation is necessary and appropriate
- Staff requests feedback on need for regulatory amendments

# Allowance Allocation: Waste-to-Energy

- Waste-to-energy facilities have a compliance obligation beginning in 2018
  - Previously exempt – CARB provided all allowances needed for compliance
- PDD includes potential regulatory language for allocation and eligibility
- Staff requests feedback from waste-to-energy facilities on possible calculation methodologies for transition assistance allowance allocation

# Allowance Allocation: Post-2020 Cap Adjustment Factors

- Staff proposes to evaluate post-2020 cap adjustment factors for specific sectors, based on recent data and using the 2010 Regulation's methodology and criteria:
  - Over 50 percent of total emissions from process emissions
  - High leakage risk classification
  - High emissions intensity, defined as 5,000 MTCO<sub>2</sub>e per million dollars value added
- PDD includes a text box addressing this topic
- Staff requests feedback and data from affected stakeholders to continue evaluation

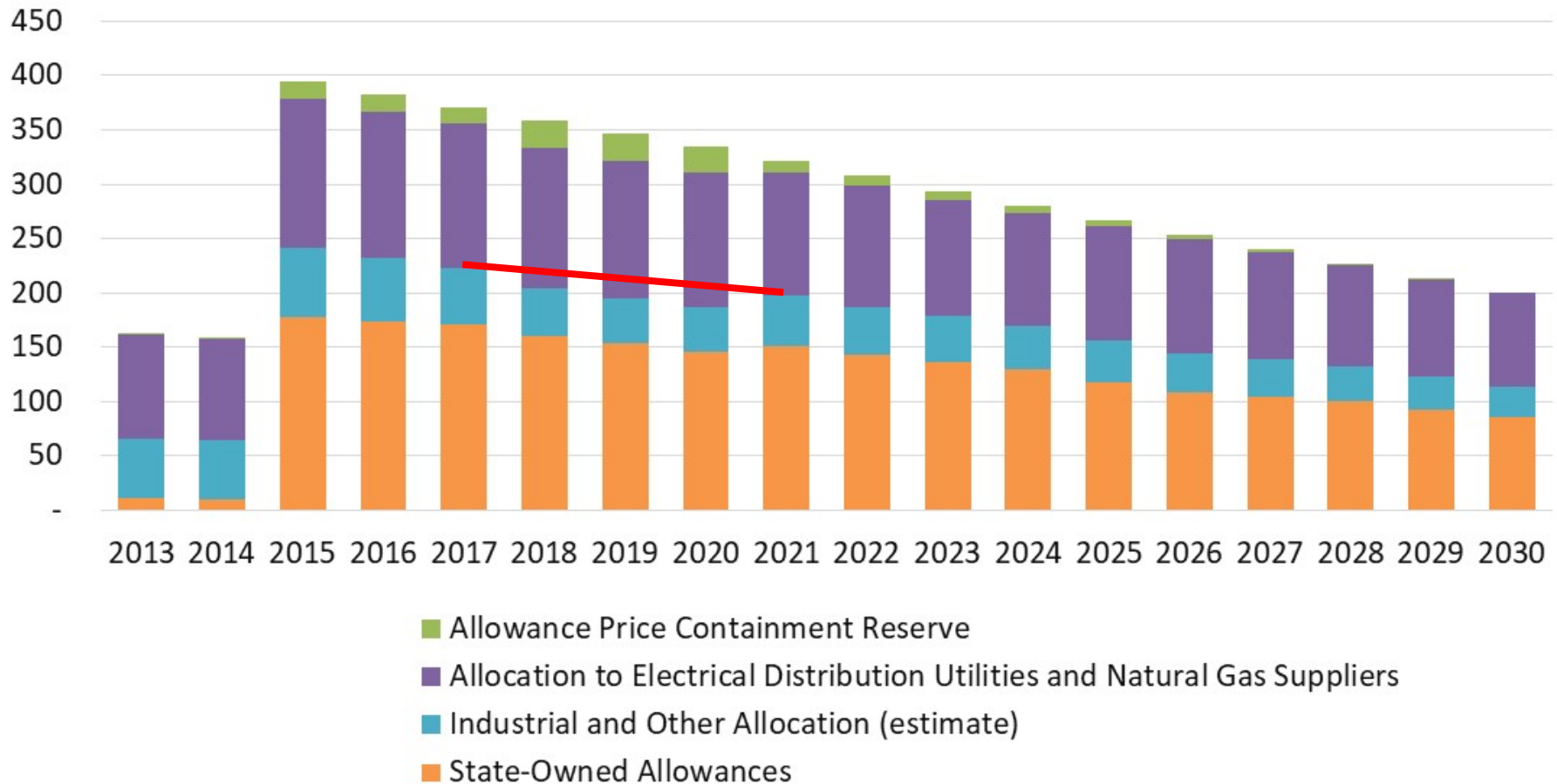
# Allowance Allocation: Assistance Factors (1 of 2)

- PDD revises Table 8-1 to set 2021–2030 AFs at 100% and includes a text box on 2018–2020 AFs
  - On track to achieve 2020 target, need deeper reductions 2021–2030
  - Smooth path from 2017–2021 is conservative approach to protect against leakage, enable earlier investments, and allow for economic growth
- If Board approves changes for 2018–2020, allowances would be allocated retroactively and would be available before the surrender deadline in 2021 for the 2018–2020 full compliance obligation
- [October 2017 slides](#) provide more background on allowance allocation



# Allowance Allocation: Assistance Factors (2 of 2)

## 2013–2030 Allowances by Year (MMTCO<sub>2</sub>e)



# Use of Allowance Value: EDUs/Natural Gas Suppliers

- PDD proposes clarifications to the range of allowable uses of electrical distribution utilities (EDUs) and natural gas supplier allocated allowance proceeds
  - Identifies allowable uses, focusing on GHG reducing activities and non-volumetric ratepayer rebates
  - Maintains flexibility while addressing requests for clarification on allowable uses of allocated allowance value
- Staff requests stakeholder feedback on:
  - Methods to quantify transportation-related load growth emissions (quantifiable and verifiable to allocation standards)
  - How those emissions compare to current load assumptions and allocated allowances

# Post-2020 Cost Containment Features Required by AB 398 (1 of 2)

- AB 398 requires formation of two price containment points and a price ceiling
- Concept Paper includes structure and terminology to better reflect existing regulation framework
  - “Price containment points” are re-phrased as “price tiers”
  - “Current Reserve” refers to the existing pre-2020 Allowance Price Containment Reserve with three price tiers
  - “Post-2020 Reserve” is post-2020 Allowance Price Containment Reserve as adopted by the Board in 2017
  - “New post-2020 Reserve” is comprised of the new price tiers
  - Price ceiling is treated as a separate design feature from the new post-2020 Reserve, with additional rules concerning eligibility and purchase procedures

# Post-2020 Cost Containment Features Required by AB 398 (2 of 2)

- New post-2020 Reserve with price tiers
  - To contain at least 2/3 of allowances from existing Allowance Price Containment Reserve (“current Reserve”)
  - AB 398 specifies allowances sold are non-tradable
  - Propose sales process similar to existing post-2020 Reserve
- Price Ceiling
  - Represents the maximum potential compliance cost per-metric ton, does not represent expected prices
  - Contains allowances from current Reserve with mechanism for covered entities to purchase additional metric tons for compliance
  - CARB to identify GHG reductions behind any additional metric tons once allowances are all used

# Factors for Establishing Price Ceiling

- AB 398 requires consideration of the following factors when establishing the price ceiling:
  - Avoiding adverse impacts on households, businesses and the state economy
  - 2020 tier prices of the current Reserve
  - Estimated Full Social Cost of Carbon
  - Auction Reserve Price
  - Potential for environmental and economic leakage
  - Cost per metric ton of GHG emissions reductions needed to meet statewide emissions targets

# Price Ceiling: Proposed 2030 Range

- For price ceiling, staff is also considering:
  - Single tier price of 2017 rulemaking's post-2020 Reserve: \$81.90 in 2030 (\$2015)
  - Voluntary corporate internal carbon pricing that can range from <\$1 to >\$800 globally and as high as \$150\* within the United States
  - Academic study that found the existing social cost of carbon is too low and could be closer to \$220 (\$2015)
- Resulting range for price ceiling in 2030 between \$81 and \$150\*

\* \$147 in 2015 dollars

# Lowest New Post-2020 Reserve Tier: Proposed 2021 Range

- Range under consideration for lowest tier value:
  - Below price ceiling value in 2030 (\$81 to \$150)
  - 2016 rulemaking's collapsed tier price estimated at \$72.9 (\$2015) in 2021

Reserve Tier	2021 Reserve Price (\$2015)	2021 Reserve Price (\$2018)*
Single Tier		

- Staff requests feedback on values for lowest tier

\* Assumes 2 percent per year inflation from 2015 value

# Sales at the Price Ceiling

- Price ceiling proposed as a separate design feature with additional rules concerning eligibility and purchase procedures
- Staff requests feedback on the terms of sale at the price ceiling, including:
  - Frequency and timing of sales: retain the quarterly Reserve sale timing or only offer immediately before compliance events as window of last resort
  - Limit purchases to fulfill compliance obligation
  - Cash payment over a fixed period as an alternative to bidding
  - Placing compliance instruments directly into the purchaser's compliance account



# Sales from the New Post-2020 Reserve

- In current Regulation, always offer Reserve sale immediately before a compliance event; three additional quarterly Reserve sales offered only if auction settlement price from a preceding auction exceeds 60% of lowest Reserve tier price
- Staff requests feedback on possible modifications to the existing post-2020 Reserve rules:
  - Frequency and timing of sales: retain quarterly Reserve sale timing or only hold Reserve sale once per year, between finalizing of the previous year's compliance obligation and the time of the yet-to-be-determined price ceiling
  - Restricting purchases to compliance instruments necessary for the next compliance event
  - Requiring an entity's holding account to be empty of compliance instruments valid for surrender before allowing entity to purchase
  - Other modifications
- Per AB 398, allowances sold from the new post-2020 Reserve will be nontradable

# AB 398: Distribution of Allowances to New Post-2020 Reserve and Price Ceiling

- AB 398 directs CARB to use two-thirds of the allowances in the current Reserve as of December 31, 2017 to fund the two tiers in the new post-2020 Reserve
- These allowances are therefore removed from the current Reserve through 2020
- As of December 31, 2017, current Reserve contained 121,833,000 allowances, allocated from the existing pre-2021 allowance budgets. Divided evenly, each tier within the new post-2020 Reserve and the price ceiling could have at least 40,611,000 allowances on January 1, 2021

Cost Containment Allowance Pool	Pre-2021 Allowances
Tier 1	40,611,000
Tier 2	40,611,000
Ceiling	40,611,000 + other remaining Reserve allowances

# Current Regulation: Distribution of New Post-2020 Reserve Allowances

- Regulation amendments that became effective in 2017 specify that 52,400,000 allowances from vintages 2021–2030 will be added to the post-2020 Reserve
- Staff requests feedback on the distribution of these 52,400,000 allowances between the price ceiling and the new post-2020 Reserve:
  - Equal distribution between the new post-2020 Reserve tiers and price ceiling?
  - Should all 52,400,000 allowances be placed in the price ceiling?
  - Other distributions?

# Additional Distribution of Vintage 2026-2030 Allowances to the New Post-2020 Reserve

- Staff requests feedback on whether it would be appropriate to distribute an additional two percent of allowances from budget years 2026 through 2030 into the price ceiling or the new post-2020 Reserve
  - AB 398 increases the offset use limit in 2026 to six percent from the four percent limit for compliance years 2021 through 2025
  - Distribution to the new post-2020 Reserve in 2026 would mirror methodology for setting pre-2020 Reserve and offsets usage limit
  - In 2010, staff initially considered a four percent offsets usage limit, which was increased to eight percent as adopted by the Board in 2011 to account for a set aside of four percent of the allowance budget to create the current Reserve

# Allowance Banking Rules

- Current Program includes holding limits to limit banking
- Staff requests stakeholder feedback on which factors, in addition to those in AB 398, are important to assess to determine if any modifications to existing banking rules are needed
  - Identify the market problem of concern and the market circumstances under which the market problem could arise
  - Propose a modification
  - Identify the rules that would change
- Harmonized allowance banking rules are critical across linked programs to ensure equitable access to allowances
  - Any new market rules must be harmonized across linked programs

# Stakeholder Comments:

## “Overallocation”

- The term “overallocation” is used to reference the fact that covered emissions have been lower than the annual caps in the Regulation
- Some believe the unused pool of allowances will hinder ability to achieve the 2030 target
- Stakeholder suggestions to address concerns:
  - Set post-2020 caps lower
  - De-value pre-2021 allowances in private accounts in post-2020 period
  - Place expiration dates on banked allowances

# Staff Thinking: “Overallocation”

- GHG emissions are lower than the cap and the State is on track to achieve 2020 target early
- The Cap-and-Trade Program is working as intended
- The relationship between GHG reductions and carbon price requires a more thoughtful and in-depth evaluation -- not simply supply vs. demand
- Avoid penalizing covered entities by making Program more stringent in response to early action to reduce GHGs or investments in allowances
  - Would incent entities to only do minimum
- Avoid introducing future allowance scarcity that will increase prices today for compliance and consumers

# Staff Thinking: “Overallocation”

- Market is designed for a steady, predictable, and increasing carbon price to prompt investments and actions to achieve mid- and long-term GHG reductions
- The carbon price signal should conform to legislation and maintain the integrity of the pre-2021 carbon market
- Reducing post-2020 caps may lead the allowance price to hit the price ceiling sooner
- At price ceiling, Program functions like a higher-cost carbon tax
  - No trading of compliance instruments
  - Higher prices per metric ton
  - Higher potential for leakage, and higher costs to the economy and consumers
  - Achieving the 2030 target may require additional, costly GHG reductions across California sectors



# Offset Usage Limits

Compliance Period (CP)	Emissions Year	Offset Limit (applies to Emissions Year)	Compliance Obligation	
			Year Due	Amount Due
3 <sup>rd</sup>	2020	8%	2021	100% of 2020, remaining 2018 & 2019
4 <sup>th</sup>	2021	4%	2022	30% of 2021
	2022	4%	2023	30% of 2022
	2023	4%	2024	100% of 2023 remaining 2021 & 2022
5 <sup>th</sup>	2024	4%	2025	30% of 2024
	2025	4%	2026	30% of 2025
	2026	6%	2027	100% of 2026 remaining 2024 & 2025

# “Direct Environmental Benefits”

- AB 398 specifies that, for offsets surrendered to meet compliance obligations for 2021-2030 emissions, no more than half may be sourced from projects that do not provide direct environmental benefits in the state
- “Direct environmental benefits in the state” are the reduction or avoidance of emissions of any air pollutant in the state or the reduction or avoidance of any pollutant that could have an adverse impact on waters of the state
- PDD includes a text box with a staff proposal for considering direct environmental benefits in the State
- Staff requests feedback on this proposal

# Mechanisms to Address Outstanding Compliance Obligations

- PDD includes a text box on mechanisms to address unaccounted-for emissions due to bankruptcy or other circumstances such as EIM Outstanding Emissions
- Staff requests feedback on the proposal to address EIM Outstanding Emissions and bankruptcy situations for entities with unfulfilled compliance obligations directly from the State allowance budget
- When providing comments:
  - Identify a source of compliance instruments
  - Specify whether the source is a temporary or permanent pool of compliance instruments
  - If advocating for a specific pool of allowances, specify how many allowances should be available

# Other Potential Regulatory Changes

- The PDD includes other potential changes and clarifications to the regulation
  - Voluntary Renewable Energy Program provisions
  - Compliance offset program refinements
  - Auction process

# CEQA Environmental Analysis

- Environmental Analysis (EA) being prepared analyzing potentially significant adverse impacts caused by reasonably foreseeable actions
- Meets requirements of CARB's certified program under the California Environmental Quality Act (CEQA)
- The CEQA Environmental Checklist (CEQA Guidelines Appendix G) is used to identify and evaluate potential indirect impacts
- The EA will be an appendix to the Staff Report

# Environmental Analysis to be Prepared

- The EA will include:
  - Description of reasonably foreseeable actions taken in response to the proposal
  - Programmatic level analysis of potential adverse impacts caused by reasonably foreseeable actions
  - Beneficial impacts
  - Feasible mitigation measures to reduce/avoid significant impacts
  - Alternatives analysis
- Input invited on appropriate scope and content of EA
- Draft EA will be released for 45-day public comment period

# Public Engagement

- ▣ Additional Workshops
- ▣ One-on-one meetings
  - ▣ Staff cannot comment or collaborate on third-party analyses as this may provide insights/information that should be shared with all stakeholders
- ▣ Regulatory drafts
- ▣ Formal rulemaking process
- ▣ CARB staff will use due diligence to ensure all market influencing information is made available to all stakeholders at the same time
- ▣ Join Cap-and-Trade list serve on CARB website

# Next Steps and Tentative Schedule

- Written comments may be submitted until 5 pm (PDT) Friday, March 16, 2018, at this site:  
<http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm>
- CARB evaluating convening informal market design reviewers to support staff regulatory development process
- Public workshops first half of 2018
- Tentative first Board hearing Summer/Fall 2018
- Tentative final Board hearing December 2018