Cap-and-Trade Regulation Workshop
October 12, 2017
Workshop Materials and Submitting Comments

- This presentation is posted:
  http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm

- The presentation webcast is available:
  https://video.calepa.ca.gov/

- Written comments may be submitted until 5 pm (PDT) Friday, October 27, 2017, at this site:
  http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm

- During this workshop, e-mail questions to:
  auditorium@calepa.ca.gov
Agenda

- Introduction
- Updates from Ontario and Québec
- Proposed Regulatory Changes
  - Board Resolution 17-21
  - Assembly Bill (AB) 398
  - Potential new Program linkages
- Next Steps
Public Engagement

- Workshops
- One-on-one meetings
- Regulatory drafts
- Formal rulemaking process

Since there is an existing market and some post-2020 elements may influence market behavior today, CARB will exercise due diligence to ensure all market influencing information is made available to all stakeholders at the same time.
Introduction

- Recent regulatory amendments were adopted July 2017 and went into effect October 1, 2017.
- Regulation development was a two-year process beginning fall 2015.
- Linkage with Ontario will become effective January 1, 2018.
- Draft Scoping Plan (January 2017) includes Cap-and-Trade Program to achieve 2030 GHG target.
- SB 32 requires emissions levels of 40% below 1990 levels by 2030.
- Today’s workshop will review Board Resolution (BR) 17-21 and AB 398 provisions, and provide initial thoughts and background on scope of amendments, process, and tentative schedules.
Québec and Ontario Program
Updates
BR 17-21: Legacy Contracts

“…work with any remaining entities with legacy contracts and their non-industrial counterparties to resolve the parties' issues related to recovery of greenhouse gas costs, or, as necessary, to propose regulatory amendments to be in place no later than the allocation of vintage 2021 allowances to ensure reasonable transition assistance for greenhouse gas costs throughout the term of the legacy contract.”

- 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 proposes to develop methodology for allocating allowances for transition assistance, ending by 2025.
Staff will evaluate post-2020 cap adjustment factors for sectors that are highly emissions intensive, highly trade exposed, and whose process emissions make up more than 50 percent of their greenhouse gas emissions.

Staff proposes to use recent data with the 2010 Regulation’s methodology for determining emissions intensity and trade exposure.
2013–2017 assistance factors 100% for all leakage classifications

2018–2020 assistance factors 100% for high leakage risk, 75% for medium leakage risk, and 50% for low leakage risk

Staff will use public process to assess if 2018–2020 assistance factors should be set at 100% for all leakage classifications

If the Board approves any changes to the assistance factors, allowances would be allocated retroactively and would be available for the 2021 compliance deadline for the 2018–2020 full compliance obligation

“... 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.”
Industrial Allowance Allocation = A x B x C x Output

- A: assistance factor, as determined by leakage risk of product
- B: product benchmark (emissions intensity per unit of product)
- C: factor that declines in proportion to the overall cap decline
- Output: amount of product produced annually

100% assistance factor does not mean that entities are allocated all allowances they need to comply with the Program

- Most benchmarks (B) reflect emissions intensities equivalent to 90% of sector average
- Cap adjustment factor (C) declines over time
By 2030, most industrial sectors will receive <50% of the allowances needed to cover their compliance obligations.
BR 17-21: EDU Allowance Allocation

“…evaluate appropriate quantification methodologies for additional electrical distribution utility allocation that would provide ratepayer benefit for the Cap-and-Trade Program cost burden associated with transportation electrification load growth (in recognition of the requirements of SB 350).”

“…consider requiring all electrical distribution utilities to consign all allocated allowances to auction, and to use auction proceeds for specific purposes to further the goals of AB 32 and SB 32.”

- Staff will evaluate methods to accurately quantify transportation-related load growth and corresponding emissions, with emphasis on large, quantifiable and verifiable (to allocation standards) growth
- Continue to explore how the value allocated to EDUs can best be utilized to encourage emissions reductions and protect ratepayers
“… at least six months prior to any of the following taking effect in a linked jurisdiction… provide a report to the Board that includes an assessment of environmental factors and will provide a recommendation for Board action if appropriate. The report to the Board will also include an opportunity for public review and input.

- Changes to the stringency of the Program;
- The adoption of a new compliance offset protocol or significant amendments to an existing compliance offset protocol;
- Linkage to another cap-and-trade program; and
- Any other change to a linked jurisdiction’s Program which would significantly affect the stringency, integrity, enforceability or successful functioning of the combined Programs.”

- Updates as needed
38562(c)(2)(A)(i)(I-VI): “Establish a price ceiling. In establishing the price ceiling, the state board shall consider, using the best available science, all of the following:

- The need to avoid adverse impacts on resident households, businesses, and the state’s economy.
- The 2020 tier prices of the allowance price containment reserve.
- The full social cost associated with emitting a metric ton greenhouse gases.
- The auction reserve price.
- The potential for environmental and economic leakage.
- The cost per metric ton of greenhouse gas emissions reductions to achieve the statewide emissions targets established in Sections 38550 and 38566.”

In 2014, Market Simulation Group recommended price ceiling to address concerns over high prices and “ad-hoc government intervention” (https://www.arb.ca.gov/cc/capandtrade/simulationgroup/simulationgroup.htm)
Additional staff considerations:

Price signal must be sufficient to incentivize research, development, and deployment of GHG-reducing technologies.
To implement the price ceiling, the state board shall develop a mechanism that consists of both of the following:

- Allowances remaining in the allowance price containment reserve as of December 31, 2020, shall be utilized solely for the purpose of sale at the price ceiling established by this section.
- If the allowances from the allowance price containment reserve are exhausted, the state board shall offer covered entities additional metric tons at the price ceiling if needed for compliance. All moneys generated pursuant to this clause shall be expended by the state board to achieve emissions reductions, on at least a metric ton for metric ton basis, that are real, permanent, quantifiable, verifiable, enforceable by the state board and in addition to any greenhouse gas emission reduction otherwise required by law or regulation and any other greenhouse gas emission reduction that otherwise would occur.”

If accessed, the price ceiling must be compensated with a ton-per-ton reduction to maintain the environmental integrity of the program.
If price ceiling is accessed, CARB will look outside the Program for lower-priced reductions.

Staff to work with linked partners on this issue as it must be harmonized across the linked programs.

A price ceiling in one linked partner program will impact prices and stringency of other linked programs.

Staff requests feedback on whether there are other aspects we should consider as we establish the price ceiling.
Allowance Price Containment Reserve (APCR) will have 121,833,000 allowances on December 31, 2017

AB 398 specifies that the two post-2020 price containment points should have 40,611,000 allowances each

Any remaining APCR allowances on December 31, 2020 will be placed into the price ceiling pool

2016 regulation specifies that 52,400,000 allowances from vintage 2021-2030 will be added to the APCR
AB 398: Establish Price Containment Points (2 of 2)

- Staff requests feedback on where the following allowances should be placed (price ceiling or two lower price containment points):
  - 52,400,000 APCR allowances per 2016 regulation
  - Allowances unsold at auction for 24 months

- Decision will affect linked jurisdictions and must not impact stringency of achieving California and partner jurisdiction targets
AB 398: Unsold Allowances to Allowance Price Containment Reserve

38562(c)(2)(C): “Require that current vintage allowances designated by the state board for auction that remain unsold in the auction holding account for more than 24 months to be transferred to the allowance price containment reserve.”

- Adopted in latest amendments section 95911(g): “Beginning January 1, 2018...current vintage allowances designated by ARB for auction pursuant to section 95911(f)(3) that remain unsold in the Auction Holding Account for more than 24 months will be transferred to the Reserve.”

- Proposed originally by CARB in summer 2016, adopted July 2017
Recent amendments set post-2020 allowance budgets

- Maintained pre-2020 economy-wide coverage, covered gases, and harmonization with linked partner jurisdictions
- Updated to the Fourth Assessment Global Warming Potentials
- After evaluation, staff established post-2020 budgets that declined linearly from 2020 cap to expected 2030 cap
- APCR removes allowances from general circulation and allows non-APCR allowances to reflect expected emissions in 2021

Staff requests feedback on what other data staff should consider in evaluating this issue
AB 398: Overallocation 2021–2030 (2 of 2)

Post-2020 Caps and APCR

- Non-APCR Allowances
- APCR Allowances
AB 398: Offset Credit Limits (1 of 2)

38562(c)(2)(E)(i)(I-II): “Establish offset credit limits according to the following:
(I) From January 1, 2021, to December 31, 2025, inclusive, a total of 4 percent of a covered entity’s compliance obligation may be met by surrendering offset credits of which no more than one-half may be sourced from projects that do not provide direct environmental benefits in state.
(II) January 1, 2026, to December 31, 2030, inclusive, a total of 6 percent of a covered entity’s compliance obligation may be met by surrendering offset credits of which no more than one-half may be sourced from projects that do not provide direct environmental benefits in the state.”

- Offsets fund reductions in uncapped sectors and serve as an important cost-containment mechanism by expanding opportunities for low-cost emissions reductions
## AB 398: Offset Credit Limits (2 of 2)

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AB 398: “Direct Environmental Benefits”

38562(c)(2)(E)(i)(II)(ii): “For purposes of this subparagraph, “direct environmental benefits in the state” are the reductions 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.”

- Staff requests feedback on how to define and implement the concept of “direct environmental benefits” in the regulation.
38562(c)(2)(G): “Set industry assistance factors for allowance allocation commencing in 2021 at the levels applicable in the compliance period of 2015 to 2017, inclusive. The state board shall apply a declining cap adjustment factor to the industry allocation equivalent to the overall statewide emissions declining cap using the methodology from the compliance period of 2015 to 2017, inclusive.”

- 2013–2017 assistance factors 100% for all leakage classifications
- See slides 10–12 for discussion of assistance factors
- 100% assistance factor \textbf{does not} mean that entities are allocated all allowances they need to comply with the Program
  - Most benchmarks (B) reflect emissions intensities equivalent to \textit{90\% of sector average}
  - Cap adjustment factor (C) declines over time
- By 2030, most industrial sectors will receive <50\% of the allowances needed to cover their compliance obligations
38562(c)(2)(H): “Establish allowance banking rules that discourage speculation, avoid financial windfalls, and consider the impact on complying entities and volatility in the market.”

- Existing rules allow prior or current vintage allowances to be banked for use in any future compliance periods
- Banking encourages early reductions
- Banking minimizes volatility
- Holding limits help ensure entities cannot create artificial allowance scarcity and price spikes via banking
Harmonized allowance banking rules are critical across linked programs to ensure equitable access and opportunities in a linked program.

Any new market rules must be harmonized across the linked programs.

Staff requests feedback on whether there are other mechanisms we should consider in response to AB 398.
Three recent leakages studies have informed Program assessments of leakage

2025 report will provide an opportunity to assess status

Staff requests feedback on the following:

- What metrics should we use to assess leakage?
- Are there other methods we should employ to evaluate leakage risk and minimize leakage?

38562(c)(2)(I): “Report to the Legislature, by December 31, 2025, on the progress toward meeting the greenhouse gas emissions reduction targets established pursuant to Sections 38550 and 38566 and the leakage risk posed by the regulation. The state board shall include recommendations to the Legislature on necessary statutory changes to the program to reduce leakage, including the potential for a border carbon adjustment, while maintaining the state’s ability to reach its targets.”
AB 398: Compliance Offsets Protocol Task Force

38562(c)(2)(F): “Develop approaches to increase offset projects in the state considering guidance provided by the Compliance Offsets Protocol Task Force, established pursuant to Section 38591.1.”

- CARB will set up Task Force in coming months
- Per AB 398 section 38591.1(a), Task Force will provide guidance in approving new offset protocols for the purposes of increasing offset projects with direct environmental benefits in the state
- Members to include specified stakeholder groups: scientists, air pollution control and air quality management districts, carbon market experts, tribal representatives, Environmental Justice advocates, Labor and Workforce representatives, forestry experts, agriculture experts, environmental advocates, conservation advocates, dairy experts
- Key challenges: avoid double counting and meet criteria of real, permanent, quantifiable, verifiable, enforceable, and additional
AB 398: Independent Emissions Market Advisory Committee

38591.2(c): “...the committee, at least annually, shall hold a public meeting and report...on the environmental and economic performance of the regulation...and other relevant climate policies.”

- Committee will be supported by CalEPA
  - Subject to Bagley-Keene Act requirements
  - Will provide ex post analysis of performance
  - No involvement in program design in order to maintain independent review status

- Members
  - Three appointed by the Governor
  - One appointed by the Senate Committee on Rules
  - One appointed by the Speaker of the Assembly
  - One representative from the Legislative Analyst’s Office
Potential New Program Linkages

- Staff will look at potential new Program linkages
Next Steps and Tentative Schedule

- Written comments may be submitted until 5 pm (PDT) Friday, October 27, 2017, 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 2018/2019
- Tentative first Board hearing late 2018
- Tentative final Board hearing mid 2019