

Cap-and-Trade Program Workshop

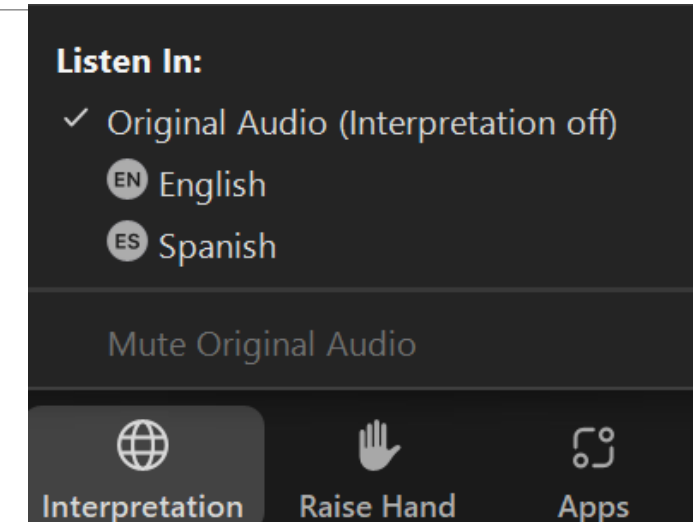
APRIL 23, 2024



Para Interpretación en Español/ For Spanish Interpretation

Para seleccionar interpretación en español

- Haga clic en el icono de interpretación (globo) en la barra de herramientas de Zoom en la parte inferior de la pantalla
- Seleccione español (Spanish)
- Seleccione "Silenciar audio original" (Mute Original Audio) para escuchar solo la interpretación en español y no en el lenguaje original al mismo tiempo



To select Spanish interpretation

- Click interpretation icon (globe) in Zoom toolbar at bottom of screen
- Select Spanish
- Select "Mute Original Audio" to only hear Spanish interpretation and not original speaker at same time

Select English in the interpretation menu to enable hearing simultaneous English interpretation of any comments provided in Spanish. If you are listening in English, do not select Mute Original Audio.

Workshop Logistics

- Workshop materials and comment docket available at Cap-and-Trade Meetings and Workshops webpage
 - <https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/cap-and-trade-meetings-workshops>
- Written feedback may be submitted to comment docket open through May 8 at 11:59 p.m. Pacific Time
- Two public comment periods after staff presentations
 1. Use the “Raise Hand” function in the toolbar at bottom of your screen
 2. When staff call your name, please “Unmute” and introduce yourself
 3. Commenters will be given 2 minutes. No ceding time to others.



Agenda

- EJAC presentation (20 minutes)
- CARB staff presentation (60 minutes)
 - Overview of potential Cap-and-Trade updates and process
 - Market rules
 - *Public Comment Period: Market Rules*
 - Compliance Offset Program
 - *Public Comment Period: Compliance Offset Program*

Potential Cap-and-Trade Updates and Process

California Context for Cap-and-Trade Program Updates

- **AB 1279:** Reduce anthropogenic GHG emissions by 85% below 1990 levels and achieve carbon neutrality by 2045
- **2022 Scoping Plan Update:** Indicated need to increase 2030 emissions reductions to support achievement of 2045 climate targets
- **Updated AB 32 GHG Emission Inventory:** Adjustment to align emissions from all sectors with third-party verified data
- Implementation needs and ongoing experience

4 workshops and 2 community meetings held in 2023 to develop and discuss concepts aligned with State goals

Initial Concepts for Potential Updates

- **Increasing Program stringency** and supporting a long-term carbon price signal aligned with the State's 2045 climate targets
- **Review market rules and cost-containment features** in the context of allowance budget adjustments to support liquidity, enhance market protections, and ensure transparent pricing
- **Account for evolution of electricity sector** in the Western U.S.
- **Updates to minimize emissions leakage** and continue to support decarbonization and innovation in California's industrial sector and fuels sector
- **Updates to offset credit provisions** and protocols to streamline implementation and reflect best available science

Initial Proposed Cumulative Allowance Budgets

| Target | Adjusted Inventory Scenario | | |
|--------|---------------------------------------|--------------------------------------|---|
| | Estimated Total 2021-2045 Allowances* | Estimated Total 2021-2030 Allowances | Estimated Removal from 2021- 2030 Budgets |
| 40% | 4,125 | 2,490 | 115 |
| 48% | 3,795 | 2,340 | 265 |
| 55% | 3,505 | 2,215 | 390 |

*Post-2030 budgets decline linearly from a 2030 value that is consistent with emission reduction target for the scenario to the 2045 target (30.3 million allowances)

Standardized Regulatory Impact Assessment (SRIA) Overview

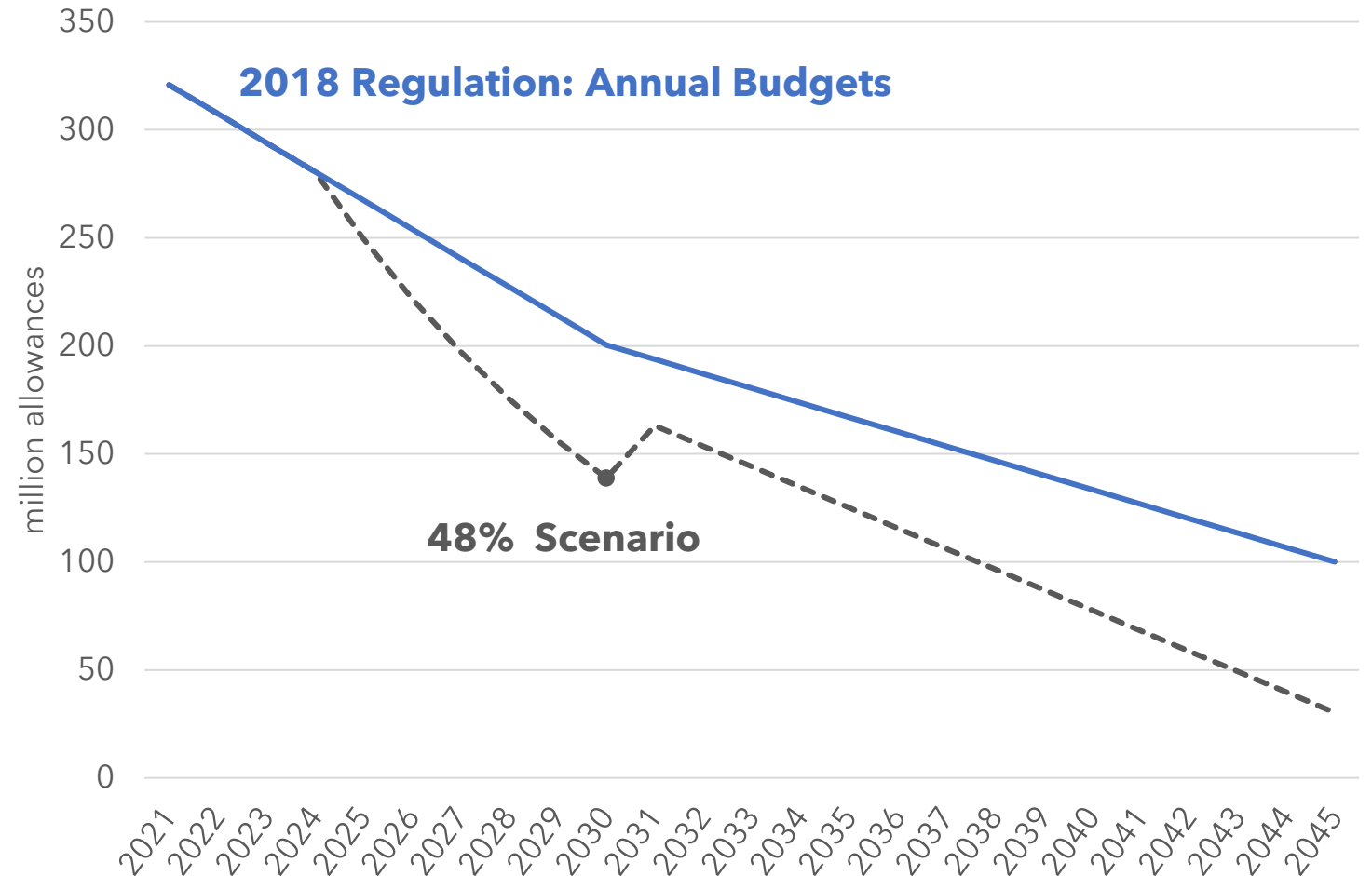
- Released April 9, 2024
- Initial economic evaluation of potential changes to the Program
 - Prepared using best information available
 - May not reflect precise real-world potential impact
- Not a formal staff proposal
- One of many steps CARB must take prior to updating the Regulation

SRIA estimated benefits relative to baseline (2025-2046)

| | Proposed Scenarios | Alternative 1 | Alternative 2 |
|---|--------------------|---------------|---------------|
| 2030 GHG Reduction Target (compared to 1990 levels) | 48% | 40% | 55% |
| GHG Emissions reductions (MMTCO ₂ e) | 981 | 626 | 1,313 |
| NOx reductions (short tons) | 312,000 | 137,000 | 373,000 |
| PM 2.5 reductions (short tons) | 52,000 | 31,000 | 67,000 |

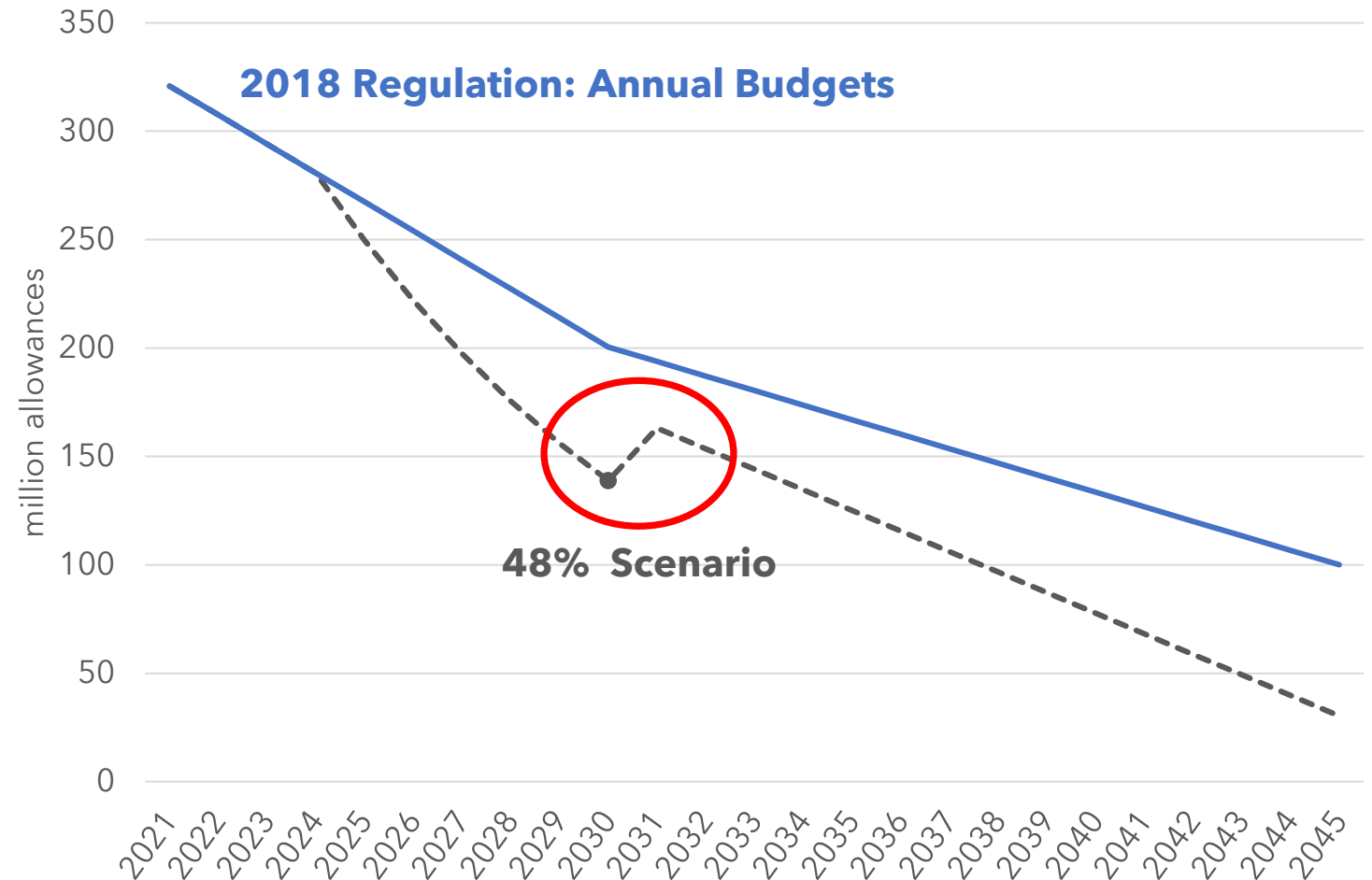
SRIA Allowance Budget: 2021-2045

- Achieves cumulative allowance removal by adjusting annual budgets for 2025-2030
- Post-2030 budgets decline linearly from a 2030 value that is consistent with emission reduction target
- Potential for increase in annual budget from 2030 to 2031 to impact post-2030 Program



2030 to 2031 Transition Considerations

- Potential discontinuity:
 - Cap adjustment factors
 - Allocation
 - Holding limits
 - Funds to GGRF
- Potential to achieve cumulative budgets and reductions for the potential 48% scenario while providing consistent treatment of covered entities and promoting a steady and well-functioning market.



Market Rules

Monitoring and Adjusting in Response to an Evolving Program

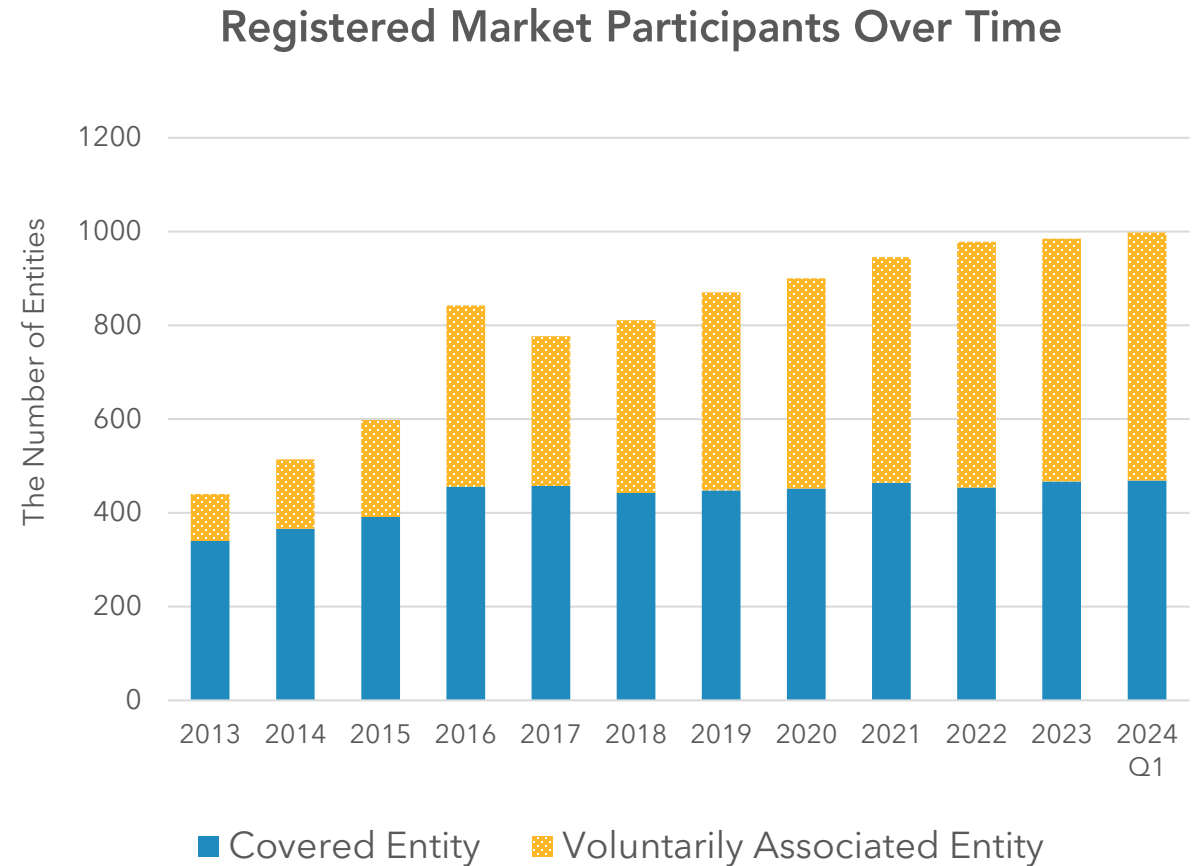
- Market rules ensure transparency and efficiency in a market to support cost-effective reductions
- Market is over a decade old and periodic reviews and adjustments are key market administrator responsibilities
- Current rules have supported a liquid and well-functioning market with near 100% compliance for regulated entities
- CARB is re-evaluating market rules in the context of emerging market behavior trends and in the context of a more stringent program
- Next few slides provide staff concepts for stakeholder input

Allowance Budgets and Market Rules

- CARB is evaluating potential implications for costs and market rules associated with changes to the allowance budgets
 - Goal is to maintain an efficient carbon price signal for continued investment in GHG reduction technologies
- CARB is reviewing regulatory concepts related to allowance holdings and trading behavior to support market efficiency
 - Corporate association disclosure rules and new control measures to protect against coordinated behavior
 - Holding limit formula in the context of allowance budget scenarios
- CARB is evaluating changes to align compliance periods with emissions target years to support timely application of the accounting mechanism for the net flow of compliance instruments across linked jurisdictions

Registration Activity

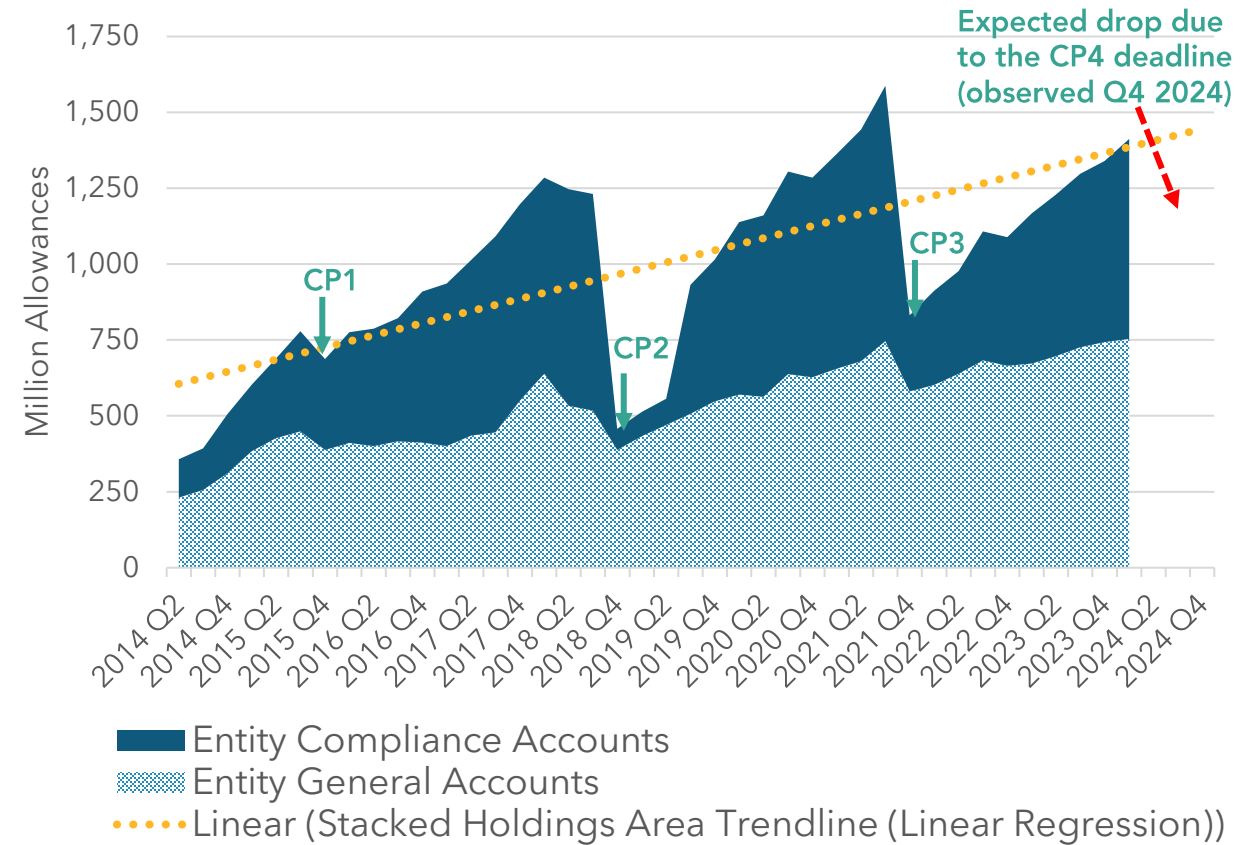
- There is a steady increase over time in Program registration and auction interest from voluntarily associated entities



Allowance Banking Trends

- Allowances held by market participants shows a gradual increase over time
 - An increasing trend despite the drops related to full compliance period (CP) compliance events
 - Another drop expected in November 2024 for fourth full compliance period (CP4)
- Allowances in an entity general account can be banked up to the applicable current or future vintage holding limit and be available for trading and use for compliance
- Allowance banking is important for cost-containment but must be monitored to for any impact on market liquidity

Allowance Holdings Over Time
(2013-2027 Vintage Allowances)



Introduction to Existing Corporate Association Groups (CAG)

- Entities subject to the same ownership or control are assumed to act in a coordinated fashion
- A Corporate Association Group (CAG) is made up of a group of separate registered entity accounts subject to the same ownership or control
- Members of a CAG share a holding limit and a purchase limit to limit the market power of the entity with control or ownership over the CAG members
- Holding limits and purchase limits must be appropriately applied and enforced to prevent collusive activity
- Current CAG rules may need to be updated to account for additional measures of control and avoid potential coordination among investment structures

Current Corporate Association Disclosures and CAG Rules

- Disclosure of corporate associations by registered entities
 - Direct and indirect corporate associations to other registered entities and to their ultimate parent
 - Cap-and-Trade Consultants/Advisors and employees with knowledge of market position
- CAG holding limits and purchase limits
 - Shared holding limit and purchase limit to prevent market participants from operating in a coordination fashion
 - Holding limit and purchase limit shares for each entity in a CAG must be identified and confirmed by all registered entities that are members of the CAG
- Current CAG triggers:
 - Six measures of ownership or control (section 95833(a)(1))
 - The Individual with Shared Roles Test (section 95833(a)(6))

CAG Trigger Concept #1: Update to Individuals with Shared Roles

Initial concept:

- Remove the distinction between an employee and a Cap-and-Trade Consultant/Advisor by requiring the disclosure of *any* individual with knowledge of or access to market position information
- Expand definition of “market position information” to include knowledge of holding limit and purchase limit values
- Entities with common account representatives or account viewing agents would be placed in a CAG due to immediate access to market position information
- Potential exemptions from triggering a CAG for certain Cap-and-Trade Consultants/Advisors, if the consultant/advisor:
 - Does not have direct access to the tracking system account and can demonstrate one of the following conditions:
 1. Does not have decision-making authority or legally binding authority over any entity’s market position; or
 2. Provides Cap-and-Trade consulting services to covered entities only

CAG Trigger Concept #2: CPOs and CTAs

- Commodity Pool Operators (CPO) and Commodity Trading Advisors (CTA) roles are defined by the Commodity Futures Trading Commission (CFTC) and can hold a significant degree of influence and control over the trade decisions and investment strategies of the funds and cash portfolios they administer
- A business relationship between a registered entity and a CPO/CTA results in a level of control of market activities that should be disclosed
- Under the current Regulation, a CPO or a CTA could potentially control the investment strategies and allowance holdings of two or more registered entities in a coordinated manner

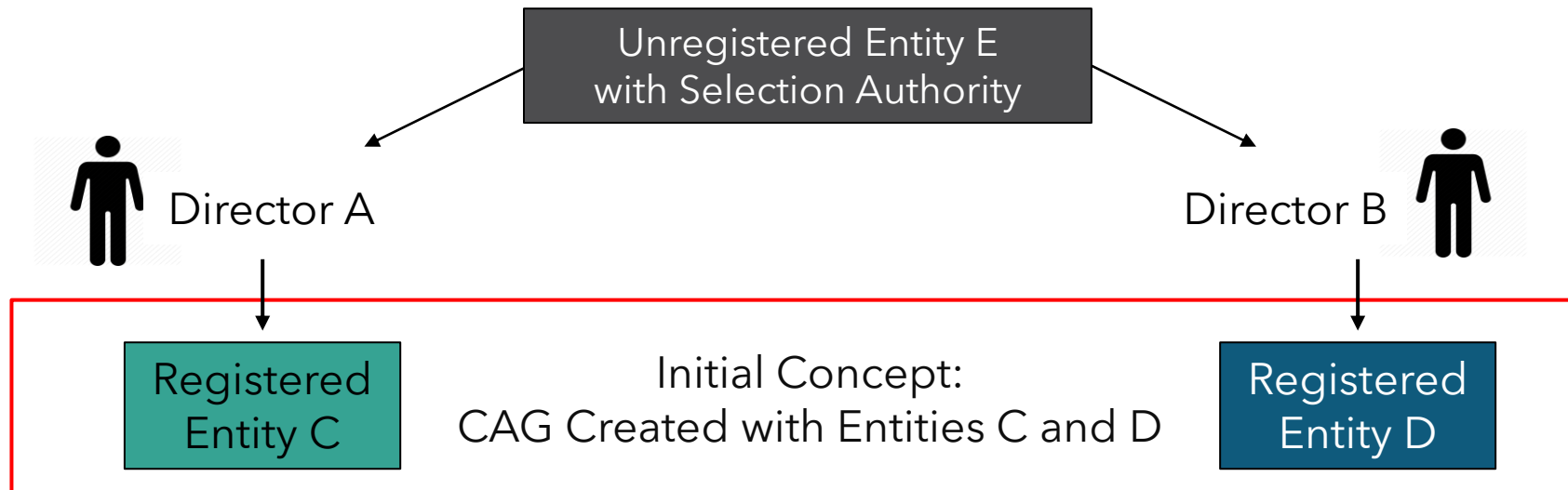
Initial concept:

- Use definitions for CPO and CTA from Code of Federal Regulations (17 CFR Part 4)
- Establish a new requirement for a registered entity to disclose to CARB information regarding its use of a CPO or CTA that is registered with the National Futures Association
- Establish a new CAG trigger if registered entities share a common CPO or CTA

CAG Trigger Concept #3: Individuals and Entities with Selection Authority

Initial concept:

- Establish a new requirement for a registered entity to disclose entities or individuals with selection authority over the registered entity's director/officer, investment manager or investment advisor, or controlling agent
- Establish a CAG among registered entities that share a common entity with selection authority



New CAG Trigger Considerations

- Changes to CAG rules, if adopted, may subject some entities to a new CAG and a more restrictive holding limit effective within 30 days
- Immediate implementation of the three CAG triggers could lead to short-term price volatility if allowances were released to the market instantaneously
- Initial estimate of impact of 3 proposed CAG triggers is ~30 million allowances potentially released into the market
- Staff are considering initial concepts to phase-in the effective date of the CAG rule changes to avoid price volatility in the market:
 - Disclose CAG within 30 days but delay the application of shared holding limits and purchase limits by one year
 - Delay potential new CAG rule implementation until 2031

Feedback on Potential CAG Triggers

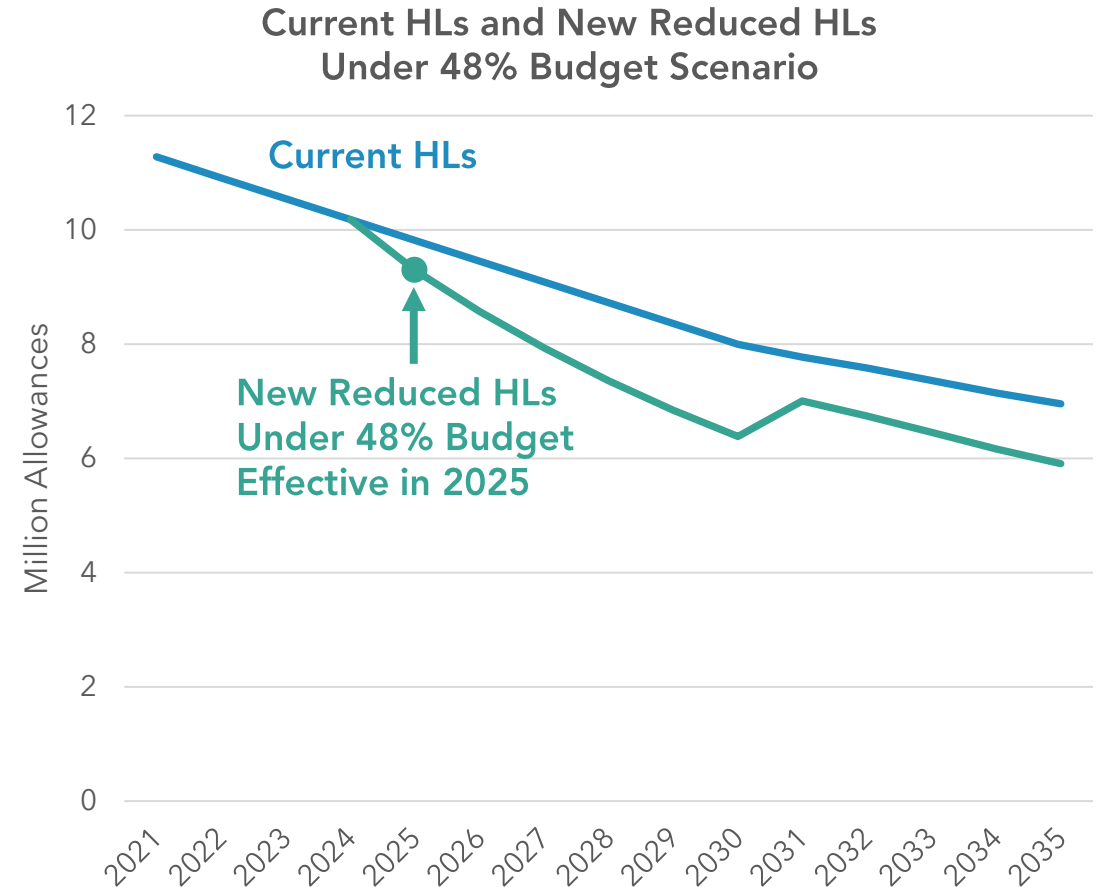
- Considerations:
 - Goal is to continue to avoid unfair market influence and market manipulation through coordinated activities
- Questions for Stakeholders:
 - Do the proposed CAG rule changes more appropriately capture the different means of control and ownership that exist in the market?
 - Should any changes to the CAG rules be immediate, or should they be phased in over time?
 - If gradual, how long should the delay be, and what factors should be considered?
 - Are there other changes or factors CARB should consider when updating CAG rules?

Holding Limit Formula and Future Changes

- The holding limit (HL) is the maximum number of allowances that may be held by an entity or a group of affiliated entities in a CAG
- The current holding limit formula is:

$$HL = 2.5M + 0.025 \times (\text{Annual Allowance Budget} - 25M)$$

- The HL decreases each year based on the decreasing annual allowance budget
- The HL applies separately to current and future vintage allowances
- Because the *annual allowance budget* is the only variable in the HL formula, any proposed changes to future allowance budgets will automatically impact HLs



Implications of Revised Pre-2030 Caps

- Using the current HL formula, changes to future allowance budgets impact future HLs
 - Apply current HL formula to updated allowance budget to calculate new reduced HLs for 2025 and beyond
 - As HL decreases, entities may need to dispose of allowances during a brief period causing potential short-term price volatility
 - Initial estimate of new reduced holding limit in 2025 would introduce over 20 million allowances into the market, based on recent market participant holdings

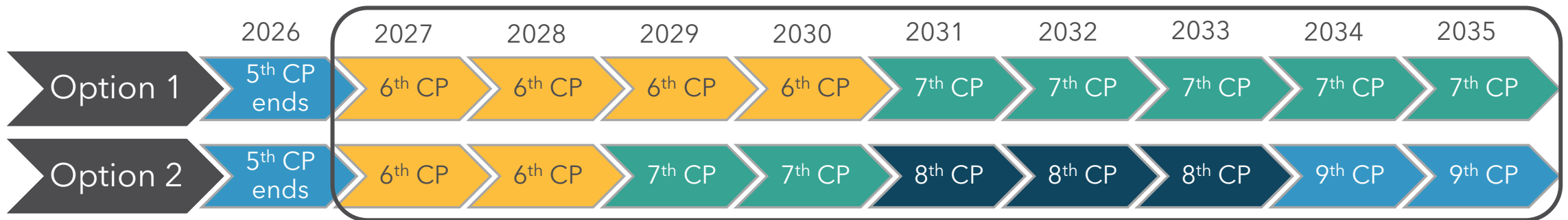
Current HLs and New Reduced HLs Under 48% Budget Scenario
(Using the Current HL Formula)

| Budget Year | Current Holding Limit | New Reduced Holding Limit (48%) |
|-------------|-----------------------|---------------------------------|
| 2024 | 10.18 | 10.18 |
| 2025 | 9.82 | 9.30 |
| 2026 | 9.45 | 8.58 |
| 2027 | 9.09 | 7.93 |
| 2028 | 8.72 | 7.36 |
| 2029 | 8.36 | 6.84 |
| 2030 | 7.99 | 6.38 |

Million Allowances or Emission Units

Compliance Period Overview and Concepts

- Aim to align compliance period (CP) end years with GHG emission reduction target years: 2030, 2040, and 2045
 - **Option 1:** Change CP6 to four years, ending in 2030, and change subsequent CPs to five years, ending in 2035, 2040, and 2045
 - **Option 2:** Change CP6 and CP7 to two years each, so CP7 ends in 2030, and change subsequent CPs to alternate between three years and two years so that every other CP ends in 2035, 2040, and 2045
- Main objective for the change is to ensure data reconciliation between linked jurisdictions:
 - Calculation of net flows of compliance instruments traded to account for annual GHG emission reductions and address any concerns of double-counting
 - [Net Flow of Compliance Instruments | California Air Resources Board](#)



Compliance Period Alignment Feedback

- Considerations:
 - Align final year of compliance periods with GHG emissions reduction target years to enable timely accounting of the net flow of compliance instruments retired between jurisdictions
 - Ensure sufficient time to accurately account for net flows of compliance instruments retired and reconcile between linked jurisdictions
- Questions for Stakeholders:
 - What should be the ideal length of a compliance period for a linked program considering the state and provincial GHG emissions reduction targets and reporting needs?
 - Should all compliance periods have the same duration?
 - What are the benefits of shorter or longer CPs?

Questions and Feedback Session: Budgets and Market Rules

- Public Comment Instructions



1. Use the "Raise Hand" function in the toolbar at bottom of your screen
 2. When staff call your name, please "Unmute" yourself and proceed to introduce yourself
 3. Commenters will be given 2 minutes, no ceding time to others
- Submit written feedback online through May 8 at 11:59 p.m. Pacific Time
 - Link to submit written feedback available at Cap-and-Trade Meetings and Workshops webpage
 - <https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/cap-and-trade-meetings-workshops>

Compliance Offset Program

Compliance Offsets Program Topics

- Overview of Compliance Offsets Program
- Initial concepts for updates to compliance offsets protocols and offset-related provisions in the Cap-and-Trade Regulation
 - Mine Methane Capture Protocol
 - Livestock Protocol
 - Ozone Depleting Substances (ODS) Protocol
 - General offset and forestry project provisions in the Cap-and-Trade Regulation

Initial concepts are based on implementation experience, and aim to improve, clarify, and streamline requirements

What Are Compliance Offset Credits?

- Represents a reduction or removal of one MTCO₂e from a source not covered by the Program
- Generated by projects following the requirements in one of six Board-adopted Protocols
- Must meet AB 32 criteria to be real, permanent, quantifiable, verifiable, enforceable, and additional
- Achieve cost-effective emissions reductions as an important cost containment mechanism in the Cap-and-Trade Program with added environmental and other co-benefits
- Credits can be used for a limited amount of Program compliance
- Rigorous requirements for offsets; have withstood past litigation

Offset Usage Limits and AB 398

- Pursuant to AB 398:
 - an entity may use offsets for up to 4% of its Cap-and-Trade Program compliance obligation for emissions during 2021-2025 and for up to 6% of its obligation for emissions in 2026 and beyond
 - No more than one half of the quantitative usage limit may be sourced from projects that do not provide Direct Environmental Benefits to the State of California (DEBS)
 - As of April 2024, over 63.4 million offset credits that provide DEBS have been issue

Mine Methane Capture Protocol

Initial concepts for potential updates:

- Update default EPA emission factor values
- Limit duration of source test applicability (two years)
- Clarify that the decline curve for a mine cannot be shared among multiple projects
- Clarify that two projects cannot use the same MSHA ID number for abandoned mines

Livestock Protocol

Initial concepts for potential updates:

- Update default EPA emission factor values
- Limit duration of source test applicability (two years)
- Establish a minimum temperature for a flare to be considered operational (above 250 °F)
- Add a volatile solids removed fraction for weeping walls (0.45 in Table A.9)
- Correct typos

ODS Protocol: Refrigerants

Initial concepts for potential updates:

- Add to list of eligible ODS Refrigerants [Subchapter 2.2.1(b)]
 - Offset Protocol Task Force recommended R-22, R-134a, R-125, R-32, R-143a
- Update parameters for refrigerants and foams in Appendix B
- Allow ODS sourced from U.S. federal government [Subchapter 2.2.1(d)]
- Revisit the point-of-origin determination threshold [Subchapter 6.2(b)(1)-(2)]
- Update some project listing and reporting requirements [Chapter 7]
 - For example, names of all parties in chain of custody, including role and contact information

ODS Protocol: Foams

Initial concepts for potential updates:

- Update baseline description (SSR 10 Foam Disposal):
 - Current protocol assumes disposal in landfill (with little loss to atmosphere)
 - Alternate assumption of recovery and reuse (with higher loss to atmosphere)
- Incorporate the foam handling procedure from the American Carbon Registry (ACR) protocol for Destruction of Ozone Depleting Substance and High-GWP Foam (version 2.0, Appendix B)
- Consider incorporating other updates included in the ACR v2.0 protocol

Forest Protocol Research Contract Update

- Update wildfire and other natural disturbance risk-rating approach to further ensure the permanence of issued offset credits and improve the reversal risks of forest projects in different parts of the U.S.
 - Incorporate new science on wildfire and natural disturbance probability and the expected changes in occurrence due to climate change
- Results will be used to update the science-based risk rating quantification methodology
- Staff aim to incorporate the updated risk-rating approach during the next process to update the U.S. Forest Offset Protocol
 - For more information, see the November 2022 Forest Protocol workshop at <https://ww2.arb.ca.gov/resources/documents/us-forest-offset-workshop-presentations-november-2022>

Offset Protocols: Feedback

- Staff are seeking feedback on these initial concepts
- Are there other updates staff should consider?
 - Mine Methane Capture Protocol
 - Livestock Protocol
 - ODS Protocol (refrigerants and foams)

General Regulatory Requirements on Timing and Process: Initial Concepts

- Update timeline to apply for renewed crediting period [95975(j)]
 - It is currently unclear when to apply, since the final reporting period of the initial crediting period may be longer than 12 months
- Clarify the process for an adverse Offset Verification Statement (OVS) and petition for an Offset Project Data Report's (OPDR) verifiability [95977.1(b)(3)(R)(6)]

Conflict-of-Interest Requirements for Verification Bodies: Initial Concepts

- Add a requirement to evaluate conflict-of-interest with entities that are related to the Offset Project Operator, Authorized Project Designee, and/or Technical Consultant [95979(b)(2)]
- Delete requirement to disclose previous verifications [95979(e)]
- Add provisions to clarify that a different verification body means that all members of the verification team must differ between the two verifications [95977.1)(a)(1)]

Offset Project Registry Requirements: Initial Concepts

- Clarify role of an Offset Project Registry in project review when credits are not issued
 - Clarify when project and verification documents become publicly available for a verification that does not result in offset credit issuance (e.g., a forest project reversal verification) [95987(b)(2)]
 - Add requirements for Offset Project Registry review of project and verification documents when a forest offset project is in its monitoring phase
 - Add a requirement for Offset Project Registries to notify CARB of any missed deadlines for active projects

Forest Project Reversals: Initial Concepts for Regulation Amendments

- Expand and clarify reversal definitions and provisions
 - Clarify discovery date for unintentional reversals [95983(b)(1)] and "first occurrence" date for intentional reversals [95983(c)(1)]
 - Clarify what is included in a verified estimate [95983(b)(1) and 95983(c)(2)]
 - Clarify that an OPDR must be submitted after a reversal [95983(b)(1)]
- Address compensation for a reversal that occurs during the post-crediting monitoring phase of a forest project

Forest Project Termination: Initial Concepts for Regulation Amendments

- Clarify OPDR requirements during a project termination
 - Include confidence buffer in termination assessment
 - If carbon stocks fall below the baseline, consider eliminating automatic termination and providing options to continue a forest project

Forest Project-Related Definitions: Initial Concepts for Regulation Amendments

- Define terms regularly used in the life of a forest project [95802(a)]
 - Response to wildfire, correctable error, conservative
- Add new "Qualified" offset verification statement option for forest projects
 - The only current options for verification statements are pass or fail; add a "Qualified" option for when a verification body concurs with an OPDR but the reporting period being verified is ineligible to receive offset credits [95977.1 (b)(3)(R)(4)(c)]

Expand Verification Requirements for Forest Projects: Initial Concepts

- Modify the consequences for receiving consecutive adverse verification statements during the monitoring phase [95977]
- Bolster verifier independence from landowner influence [95977]
- Clarify reference to 4-hour oversight during a site visit [95978]
 - Boots-on-the-ground versus available-by-phone
 - Which verification team members does this apply to (lead only, technical experts, project specialist, etc.)

Offset Project Land Ownership Transfer

- Initial concepts to improve transparency for the buyer, registries, and CARB during forest offset project land transfers
 - Add legal and financial disclosure requirements before transfer or sale
 - Standardize procedures to inform registries and CARB upon and transfer or sale of project land
 - Clarify the required documentation, deadlines, assessment of penalties, and other requirements when a transfer or sale of project land occurs
- Consider allowing a new land-owner to relist a project in the same area of a previously terminated project [95975(p)]

Miscellaneous Offset Credit Provisions: Initial Concepts

- Consider adding a requirement to verify DEBS determination during every full verification for certain out-of-state forest projects
- Remove Early Action Offset Credit provisions [95990]
- Modify start of invalidation timeframe to begin at the date of issuance
- Consider allowing baseline adjustment when a later verification finds an error greater than 5% or when an error is discovered in calculations of carbon estimates

Seeking Input on Offset Program

- Feedback on staff concepts
- Any new streamlining or administrative updates
- Any other updates to compliance offset protocols

Questions and Feedback Session: Offsets

- Public Comment Instructions



1. Use the "Raise Hand" function in the toolbar at bottom of your screen
 2. When staff call your name, please "Unmute" yourself and proceed to introduce yourself
 3. Commenters will be given 2 minutes, no ceding time to others
- Submit written feedback online through May 8 at 11:59 p.m. Pacific Time
 - Link to submit written feedback available at Cap-and-Trade Meetings and Workshops webpage
 - <https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/cap-and-trade-meetings-workshops>

Additional Program Evaluations

- Cap-and-Trade FAQ & Local Air Pollution
<https://ww2.arb.ca.gov/resources/documents/faq-cap-and-trade-program>
- Allowance Supply Evaluation
[BR 18-51 Cap-and-Trade Allowance Report](#)
- Recent Forest Offset Program Review
[nc-CARBslides20221130.pdf](#)
- Cap-and-Trade Website
[Cap-and-Trade Program | California Air Resources Board](#)

Next Steps

- Submit written feedback through 11:59 p.m. on May 8
- Link to submit written feedback available at Cap-and-Trade Meetings and Workshops webpage
 - <https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/cap-and-trade-meetings-workshops>