

# Cap-and-Trade Community Meeting

---

OCTOBER 30, 2023, AND  
NOVEMBER 7, 2023



# For Spanish Interpretation

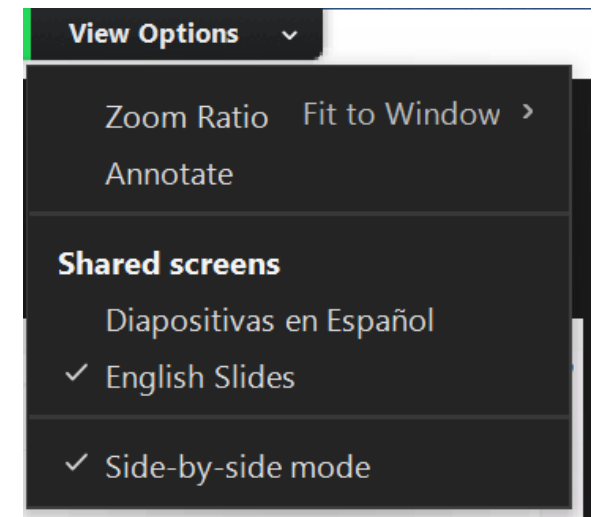
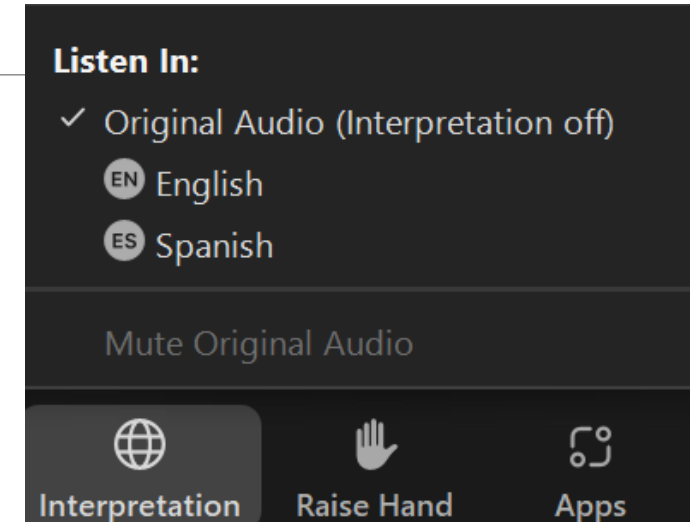
To select Spanish interpretation

- 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

To select Spanish presentation deck

- At the top of the meeting window click "View Options"
- Select "Spanish Slides"

Select English in the interpretation menu (globe) to enable hearing English interpretation of any comments provided in Spanish



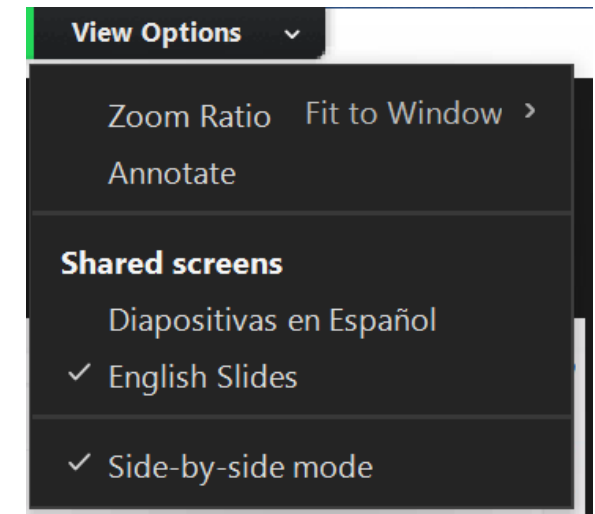
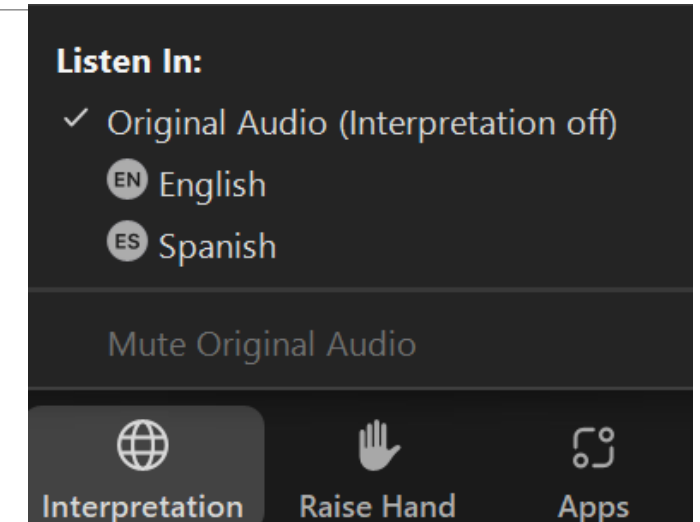
# Para Interpretación en Español

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
- Seleccione "Silenciar audio original" para escuchar solo la interpretación en español y no en el lenguaje original al mismo tiempo

Para seleccionar la plataforma de presentación de diapositivas en español

- En la parte superior de la ventana de la reunión, haga clic en "Ver Opciones"
- Seleccione "Diapositivas en Español"



# Meeting Logistics

---

- Meeting 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 December 1 at 11:59 p.m. Pacific Time

# Cap-and-Trade HIGHLIGHTS

Cap-and-Trade was launched in 2012 to reduce greenhouse gas emissions. It places a long-term steadily increasing price on climate pollution.

## HOW IT WORKS



Statewide cap limits total climate pollution



Emitters reduce climate pollution or pay increasing prices



Climate pollution emissions drop over time

## BENEFITS

### GHG reductions

- ✓ 2020 GHG reduction targets achieved early
- ✓ Climate pollution down 14% below 1990 levels
- ✓ Spurred innovation and clean technology deployment

### OVER \$40 BILLION invested in communities

\$25.6 billion supports programs to improve air quality in overburdened communities



zero-emissions mobility

transit & rail

affordable housing

sustainable communities



\$15 billion to benefit utility customers, including \$7.4 billion in credits on utility bills

## WHAT'S NEXT

CARB is making stringency updates to align program with new GHG emissions reductions target of 85% by 2045.

# Agenda

---

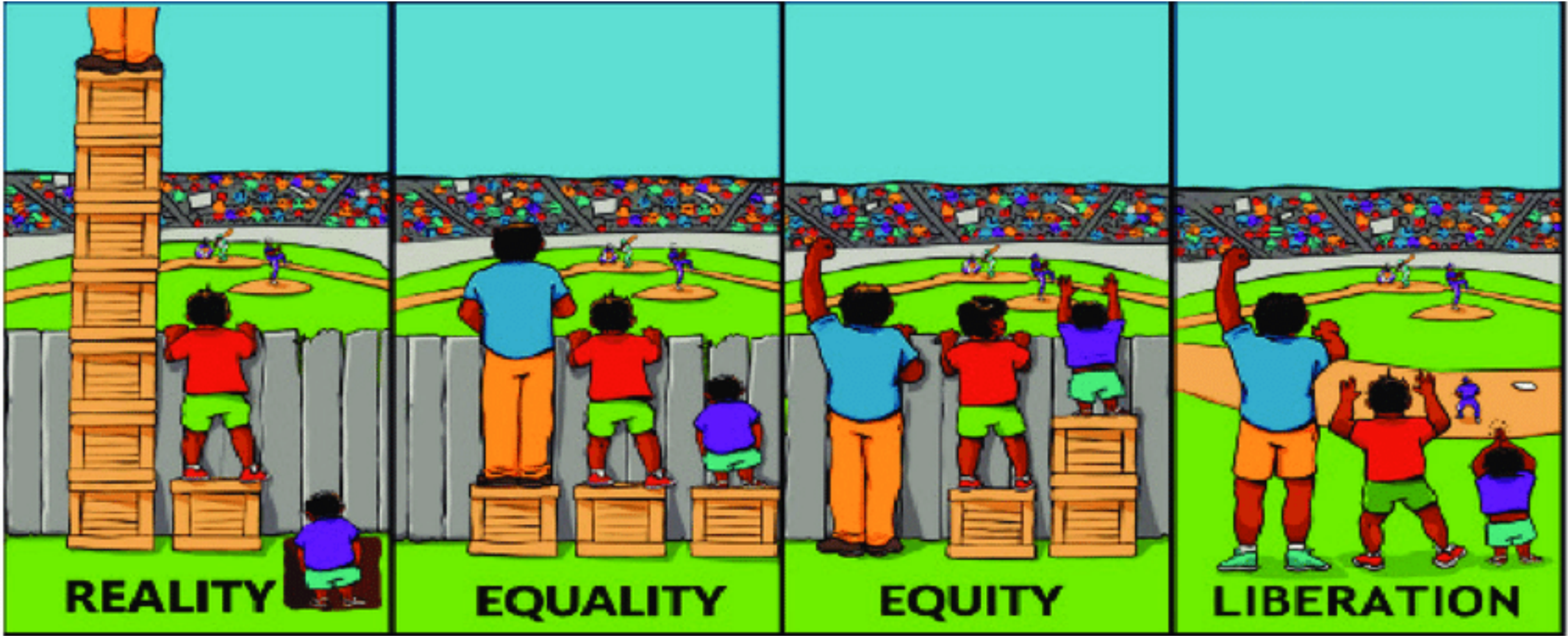
- Presentation by Martha Dina Argüello, Co-Chair of the Environmental Justice Advisory Committee
- Presentation by CARB staff
  - California's climate change action and the role of Cap-and-Trade
  - How Cap-and-Trade works
  - Potential Cap-and-Trade updates and overview of rulemaking process
- Public comment after the presentation

# Environmental Justice Advisory Committee (EJAC)

Cap and Trade Concerns and Recommendations

*Comité Asesor de Justicia Ambiental*  
*Preocupaciones y Recomendaciones sobre los*  
*Límites Máximos y Comercio*

October 30 and November 7, 2023  
30 de octubre y 7 de noviembre del 2023



**REALITY**

**EQUALITY**

**EQUITY**

**LIBERACIÓN**

**REALIDAD**

**IGUALDAD**

**EQUIDAD**

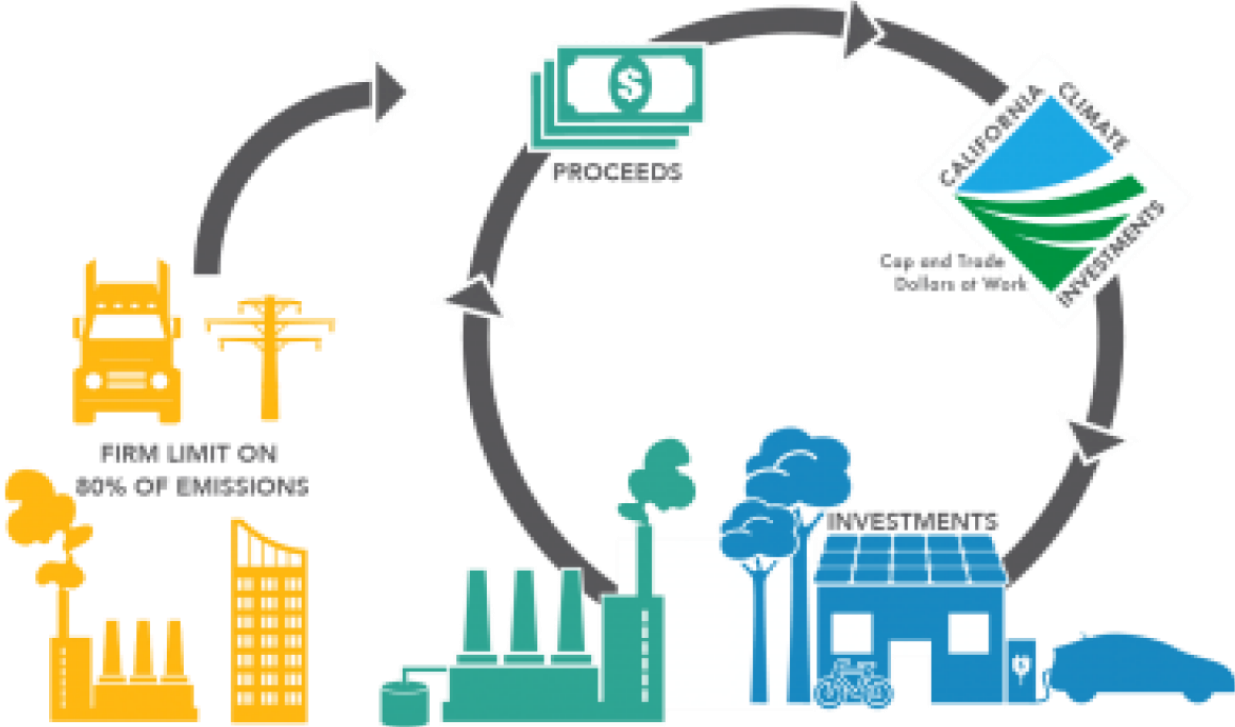
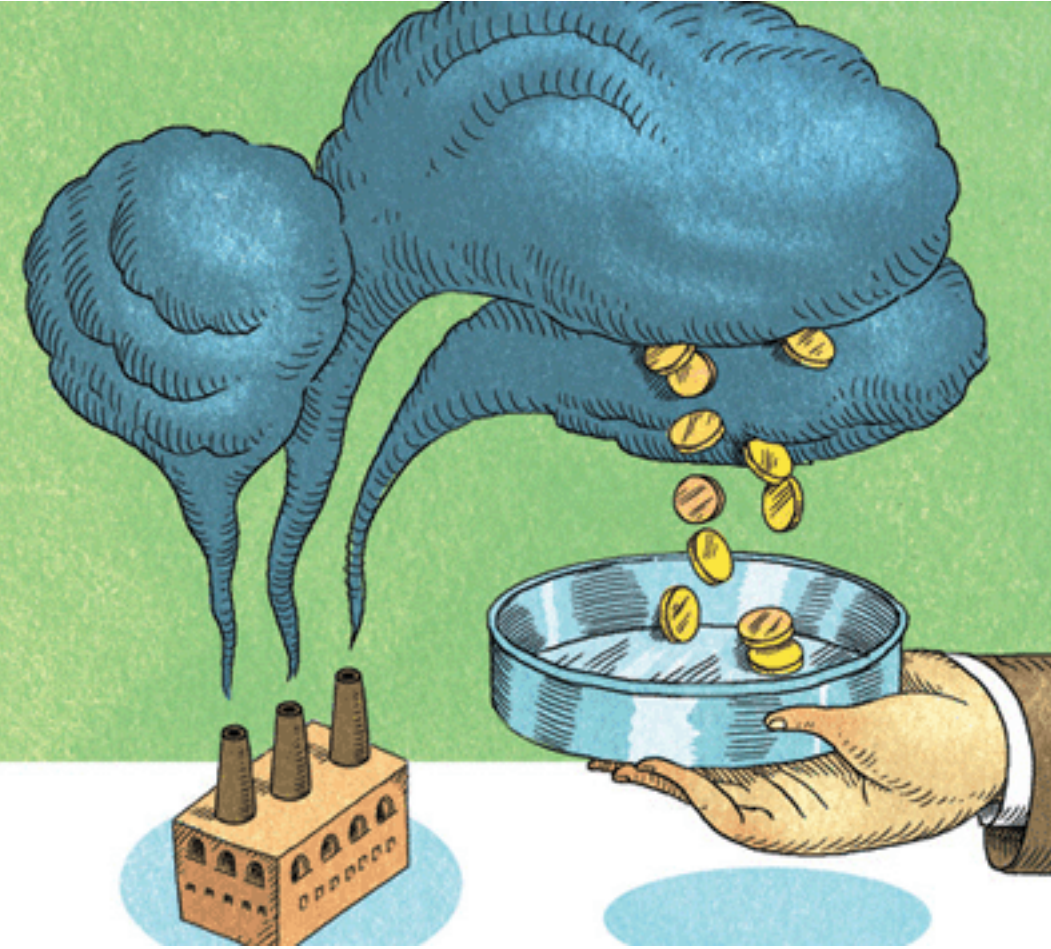
**LIBERACIÓN**



# Reaching Real Zero / Lograno el Cero Real

1. CARB must prioritize direct emissions measures in the Scoping Plan.
  2. CARB should reduce the percentage of reductions expected from the cap-and-trade program.
  3. CARB should strengthen data reporting to ensure timely tracking of emissions changes.
- 
1. La CARB debe priorizar las medidas de emisiones directas en el Plan de Alcance.
  2. La CARB debería reducir el porcentaje de reducciones anticipadas del programa de comercio de derechos de emisión.
  3. La CARB debe fortalecer la presentación de datos para garantizar un seguimiento oportuno de los cambios en las emisiones.

# Cap and Trade / Límites Máximos y Comercio

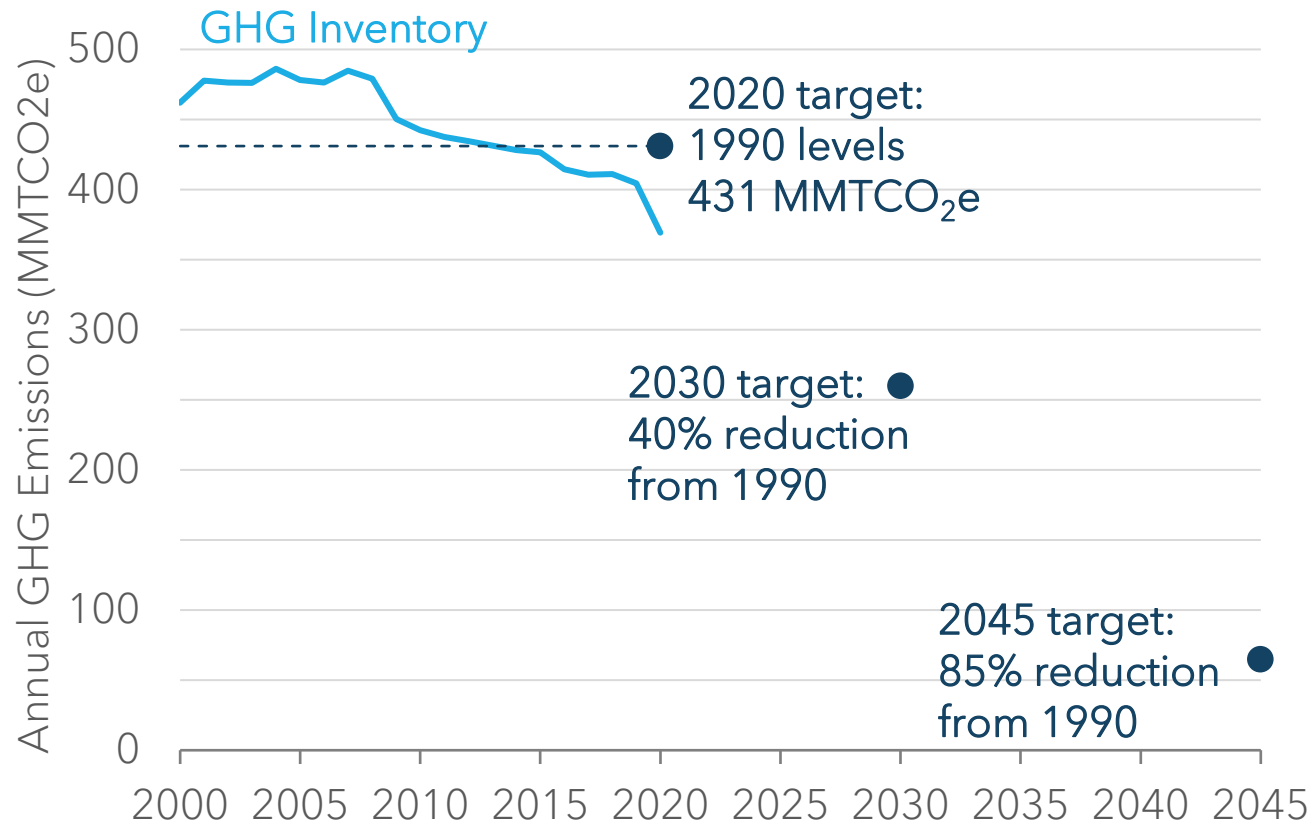


# Recommendations / Recomendaciones

1. Eliminate free allowances. / Eliminar las asignaciones gratuitas.
2. Eliminate offsets. / Eliminar las compensaciones.
3. Restrict trading in priority environmental justice communities. / Restringir el comercio en comunidades de justicia ambiental.

# California's Fight against Climate Change

## *Met the 2020 GHG Emissions Target Early*



ACHIEVING  
**CARBON**  
NEUTRALITY  
BY **2045**

# California's Climate Policy Portfolio

## *Mix of Regulations, Incentives, and Carbon Pricing*

---

- **Economy-wide carbon price funding further GHG reductions:** Cap-and-Trade
- **Reduce carbon-intensity of transportation fuels:** Low Carbon Fuel Standard
- **Renewable energy requirements for utilities:** Renewables Portfolio Standard
- **Zero-emission new vehicle sale targets:** Advanced Clean Cars, Advanced Clean Trucks
- **Building energy efficiency and electrification:** Energy Code and Green Building Standards
- **Reduce short-lived climate pollutants:** Oil and Gas, HFC, and Landfill Methane Regulations
- Develop **State Strategies** for natural and working lands, cement decarbonization, carbon-capture and sequestration, and low-carbon hydrogen development
- Leverage **funding and investments** provided through the Cap-and-Trade funded Greenhouse Gas Reduction Fund, state General Fund, federal Bipartisan Infrastructure Bill, and Inflation Reduction Act

# Connection to Local Air Quality

- Climate change programs fall under a different legal framework than local air pollutant measures
- To meet federal air quality standards and reduce local air pollutants:
  - CARB adopts regulations on mobile sources additional to federal regulation
  - Local air districts set pollution regulations and permitting requirements for stationary facilities additional to federal regulations
- **CARB has the authority to regulate all sources of GHG emissions**

*Legal framework for local air pollutant measures*

Mobile Sources



Stationary Sources



# AB 32 Established Authority and Requirements for CARB to Reduce GHG Emissions

---

*AB 32 (2006) gave CARB authority to establish “a system of market-based declining annual aggregate emission limits” to reduce GHGs.*

CARB regulations adopted under AB 32 shall:

- Consider cost-effectiveness and technological feasibility
- Minimize the administrative burden of implementing and complying with the regulations
- Minimize leakage of emissions to out-of-state
- Consider the significance of the contribution of each source or category of sources to statewide emissions of greenhouse gases

# Overview of Cap-and-Trade Program Development

---

*The Regulation has been amended 8 times since adoption. Each update balances input from the legislature, stakeholders, environmental justice groups, environmental groups, communities, other government agencies and the Board.*

**2006**

AB 32 authorized market approach

**2008-2011**

Multi-year development process with expert committees

**2012**

Two rulemakings to support linkage with Québec

**2013**

Updates focused on minimizing emissions leakage risk

**2014**

Two rulemakings including updates to offset protocols

**2016**

Post-2020 program extension and updates for electricity markets

**2018**

Extensive Program update after 2017 Scoping Plan and AB 398



# Program Amended in 2018 Following Direction from AB 398

---

*AB 398 (2017) was passed by two-thirds of the Legislature and provided post-2020 direction to the Program*

- Bolstered cost-containment, reduced the role of offset credits, and prioritized protection against emissions leakage

*AB 617 (2017) was passed in conjunction with AB 398 in response to environmental justice concerns*

- Established the Community Air Protection Program to reduce exposures in communities most impacted by air pollution

*AB 378 (2017) offered alternative direction to the Program, including no-trade zones, facility-specific caps, and air pollution emissions standards, but failed to pass*

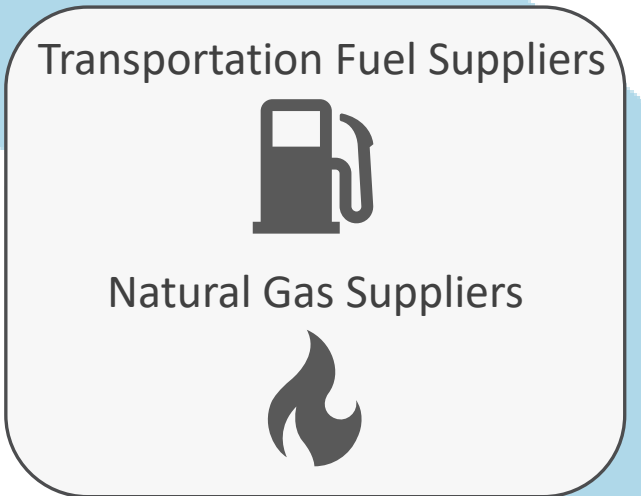
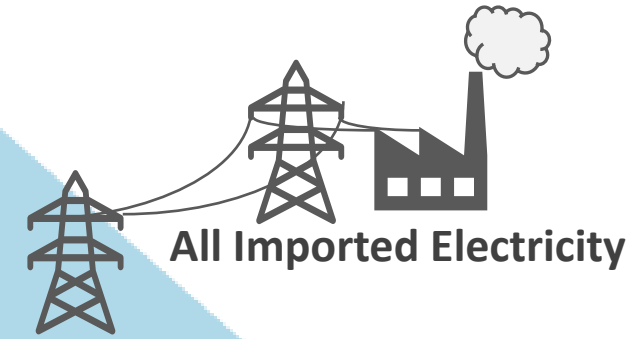
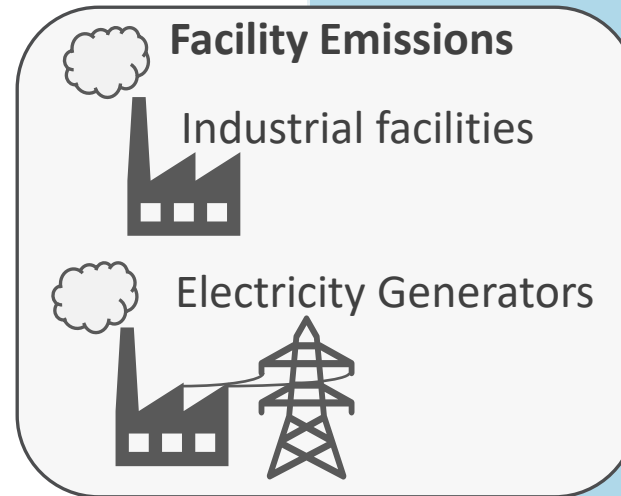
# Cap-and-Trade Program Overview

---

# Cap-and-Trade Covers GHG Emissions Across California Economy

Complements sector-specific programs by placing an economy-wide, declining cap on statewide GHG emissions

Covers about 400 total facilities, including industry, electricity generators and importers, and suppliers of gasoline, diesel and natural gas



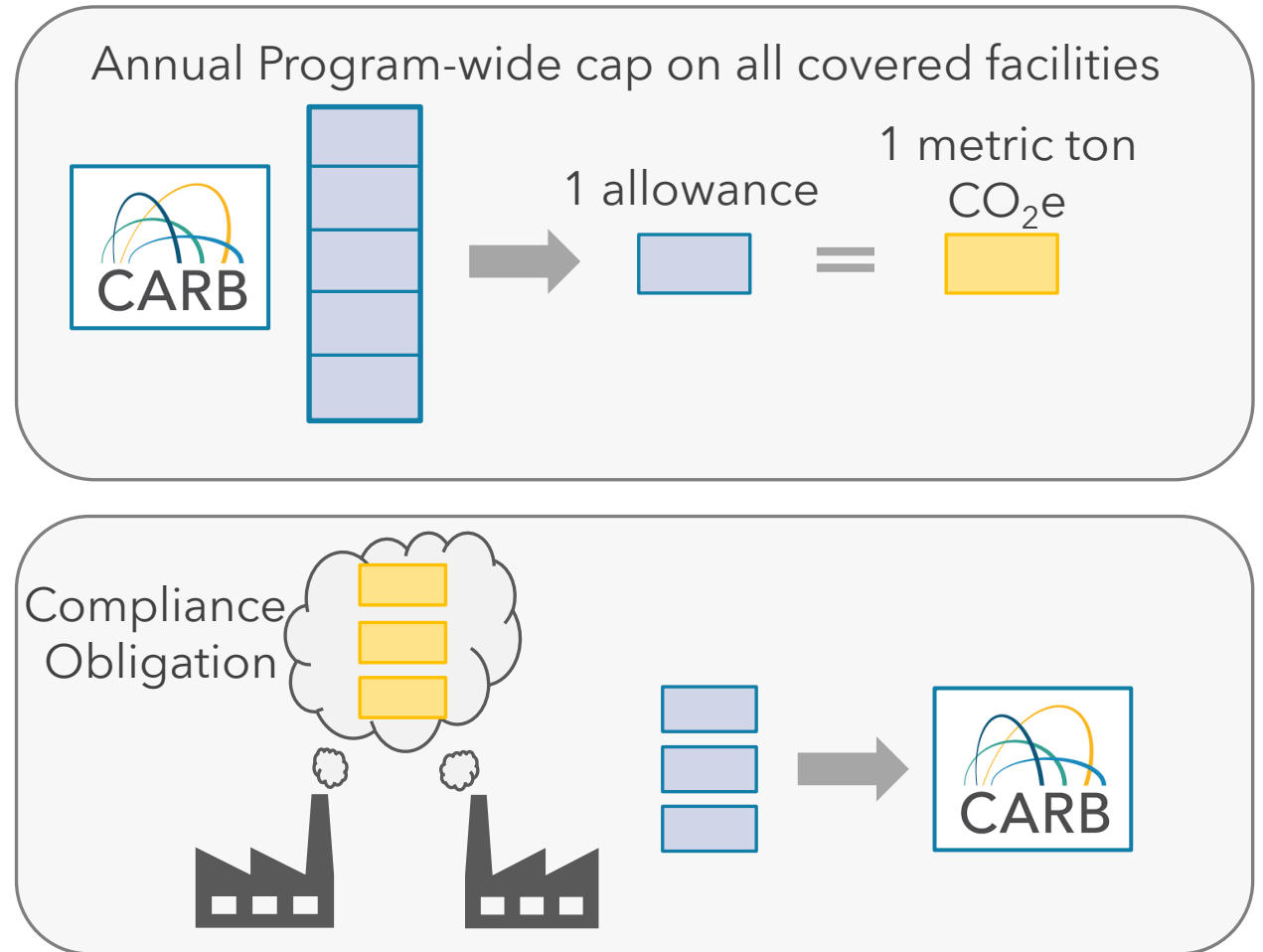
# Program Cap Set According to State's GHG Goals

One allowance equals one metric ton of carbon dioxide equivalent

Covered entities must acquire and surrender allowances, from the aggregate cap, in an amount equal to the GHG emissions from all their covered facilities

A covered entity may be responsible for multiple facilities

No individual facility caps are established by the Program



# Cap-and-Trade Program Provides Long-Term Incentive for Economy-Wide Decarbonization



# Verified Data and Strong Enforcement Protect Program Integrity

---

- Emissions data annually reported and verified by third-parties
- Purchase and holding limits of allowances prevent market manipulation
- If an entity misses a compliance deadline, it is responsible for surrendering four allowances for every missed allowance
- CARB has strong authority to enforce Program requirements, including by financial penalties
- Coordination with U.S. Commodity Futures Trading Commission, Federal Energy Regulatory Commission, and California Department of Justice

# Cap-and-Trade Program Protections and Benefits

---

# Successful Implementation Since 2012

---

Through 2021, over 2.1B allowances surrendered to Cap-and-Trade Program, holding entities accountable for GHG emissions

100% Program compliance rate through 2020, demonstrating successful Program approach for hundreds of entities

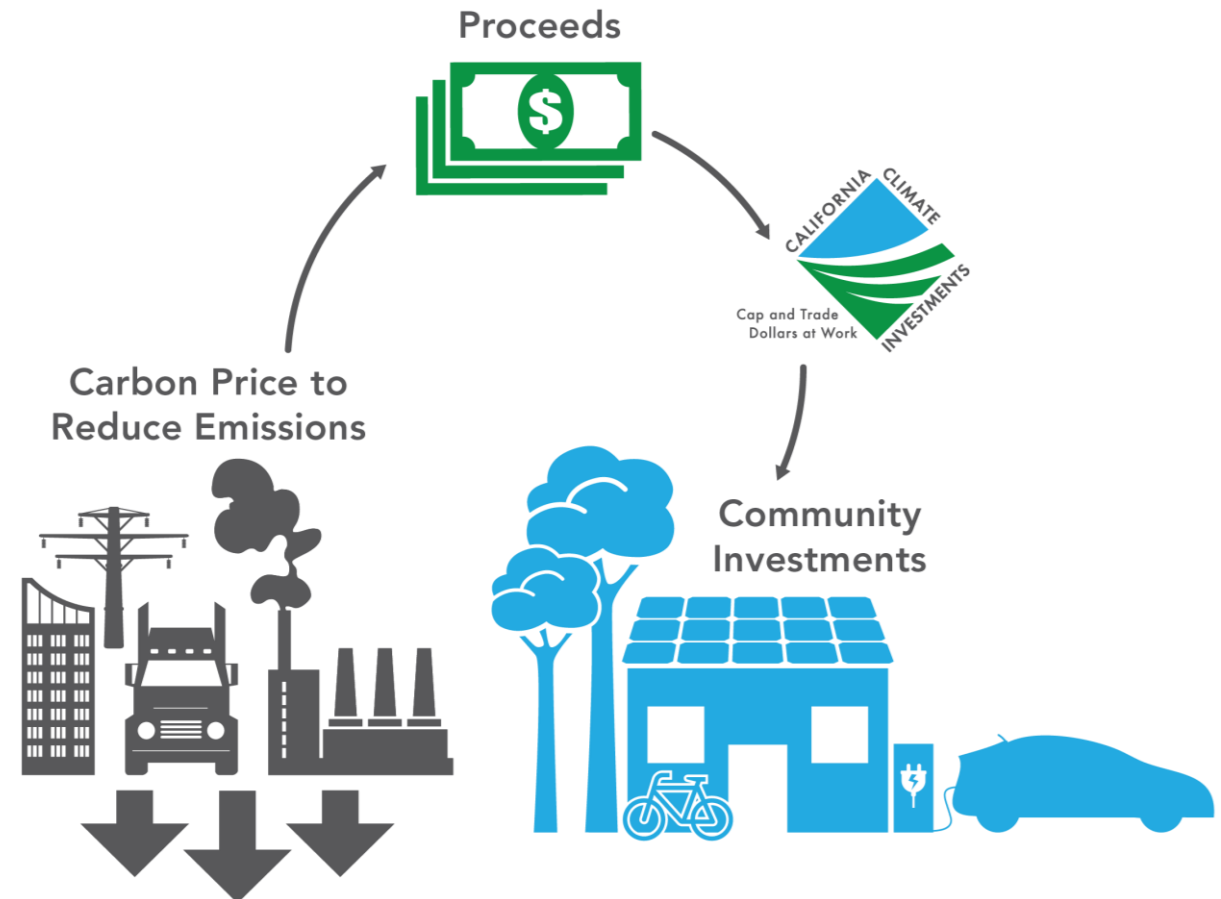
Early achievement of 2020 reduction target indicates lower GHG emissions benefiting the climate

44 auctions since 2012 generated over \$40B of proceeds for utility customer protection and California Climate Investments



# Cap-and-Trade Provides Critical Funding for Communities

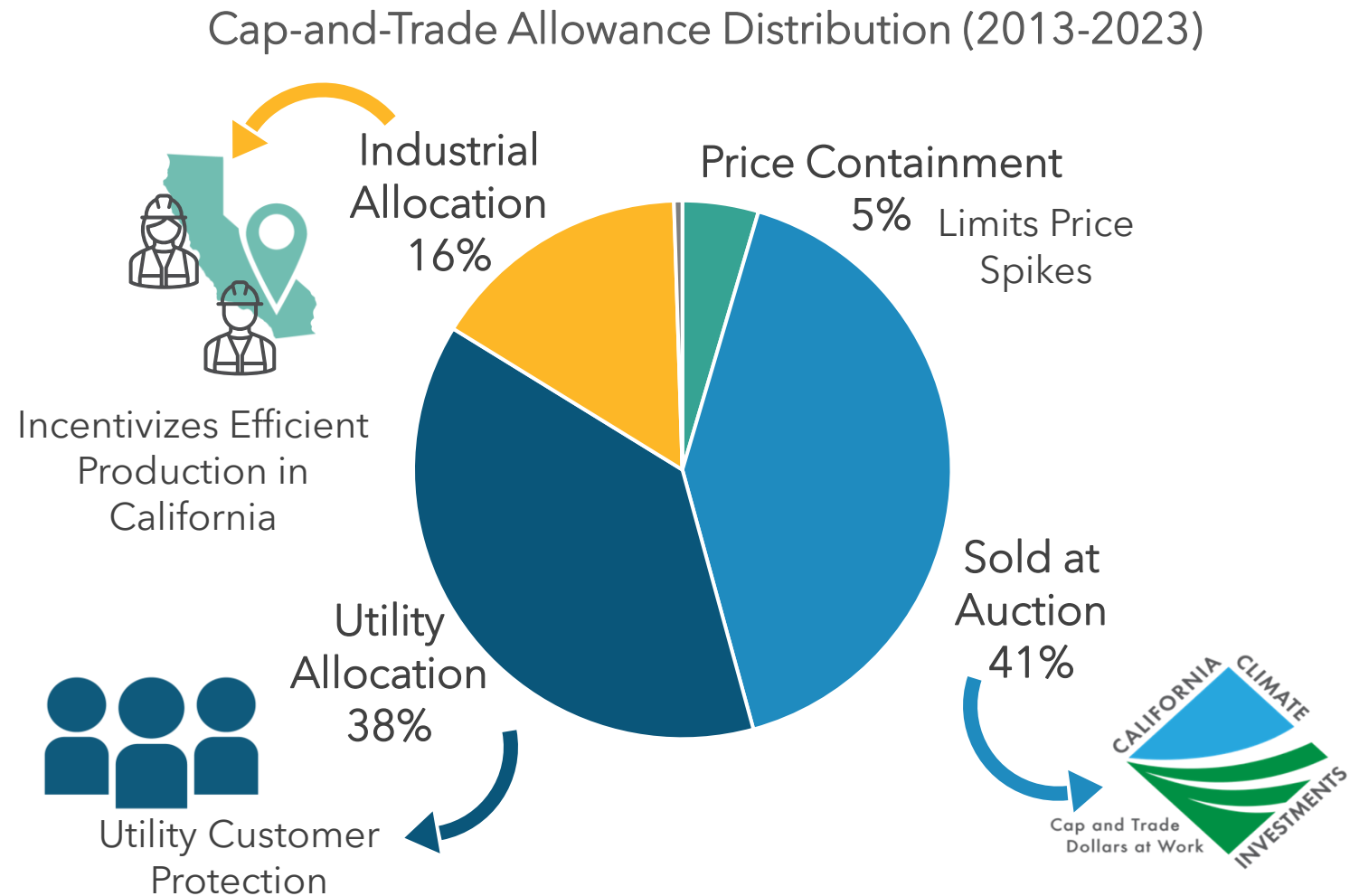
- Auction of State allowances solely fund California Climate Investments and funds AB 617 Community Air Protection Program
- \$23.7B provided; \$9.8B implemented (through May 2023)
- Over 74% implemented benefiting priority populations
- Projects will reduce 98 million metric tons CO<sub>2</sub>e, 85 thousand tons of criteria air pollutants



# Cap-and-Trade Allowance Distribution

## Allowance value distribution

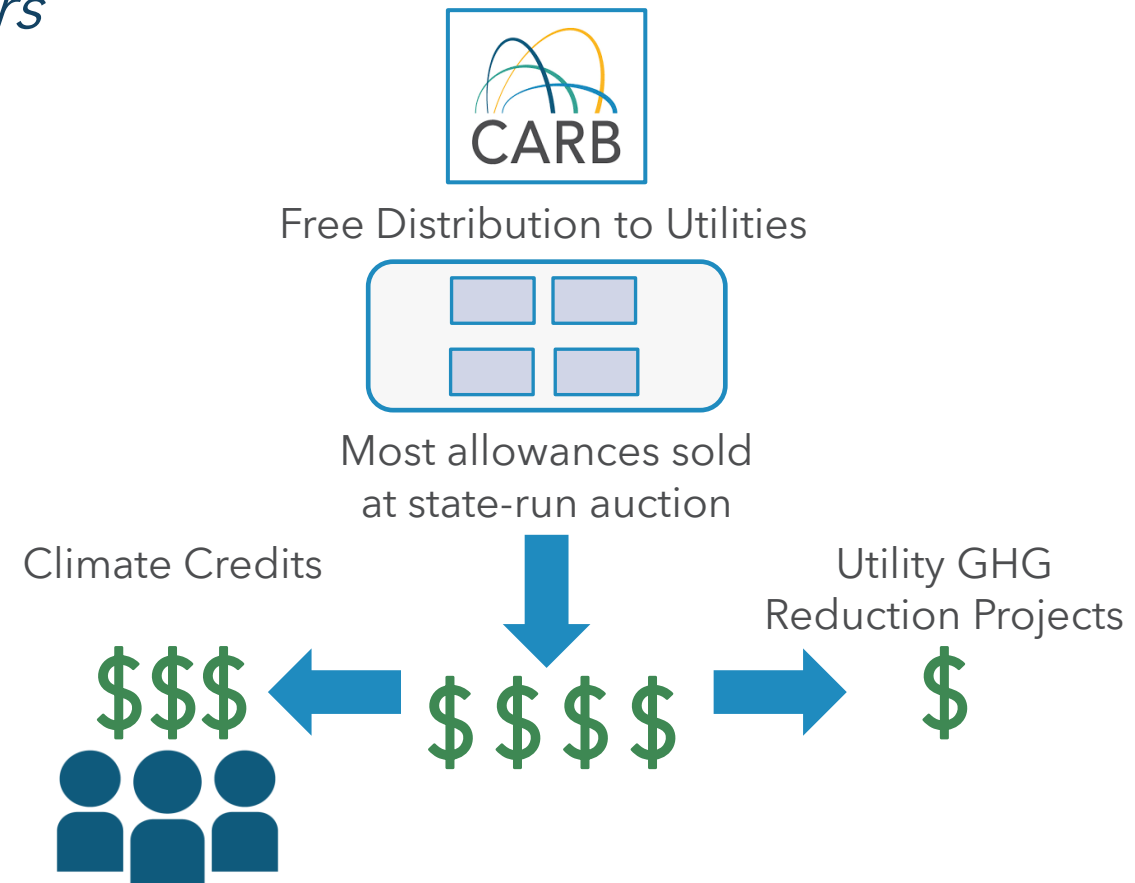
- Sale at auction funds California Climate Investments and AB 617 efforts
- Free distribution to utilities for customer protection
- Free distribution to industry to support efficient production in California



# Utility Customer Protection

*CARB provides allowances to electricity and natural gas utilities for the protection and benefit of their customers*

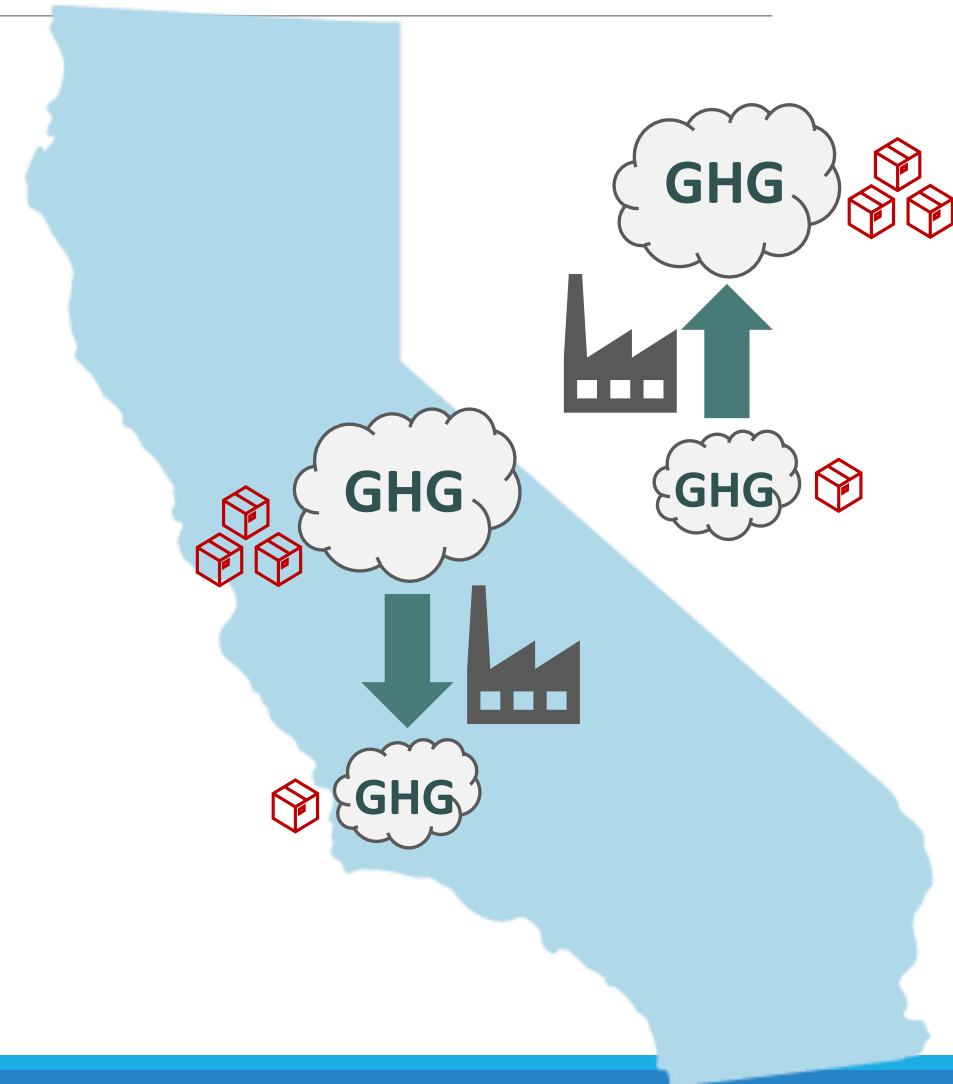
- Most utility allowances are sold at auctions with most proceeds returned to residential customers as automatic flat Climate Credits that reduce bills one or twice per year
- Flat Climate Credits are an essential tool for protecting residential customers from the costs of the Program while maintaining the carbon price signal
- Through 2021, **\$7.4B returned as residential Climate Credit**



# Industrial Distribution Incentivizes Maintaining Clean Production in California

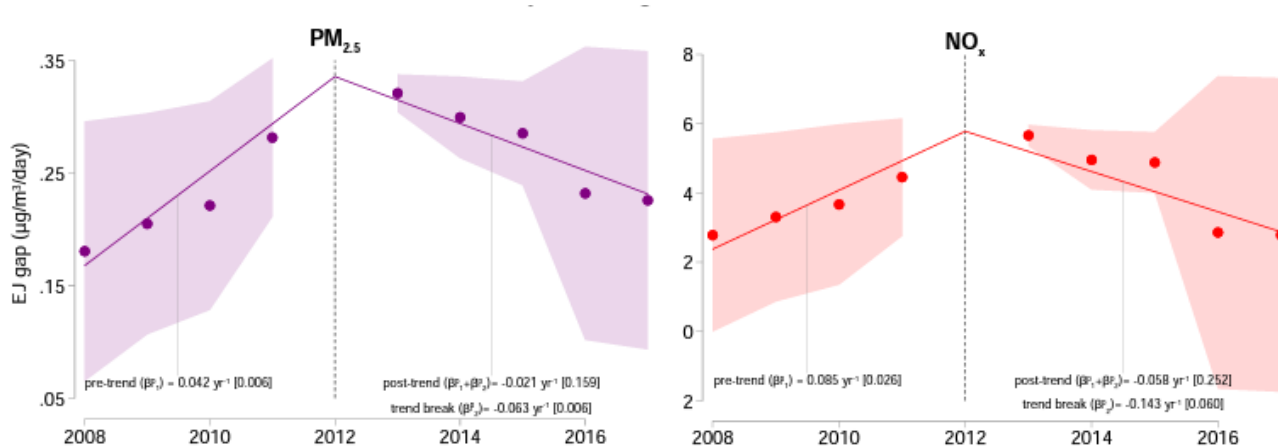
*Cap-and-Trade Program is designed to support efficient production in California*

- Shift of businesses or production to out-of-state could result in decrease in GHG emissions in-state with a corresponding increase in out-of-state emissions
- Risk addressed by allowance distribution to industrial entities
- Incentives maintaining low-carbon production, businesses, and jobs in California



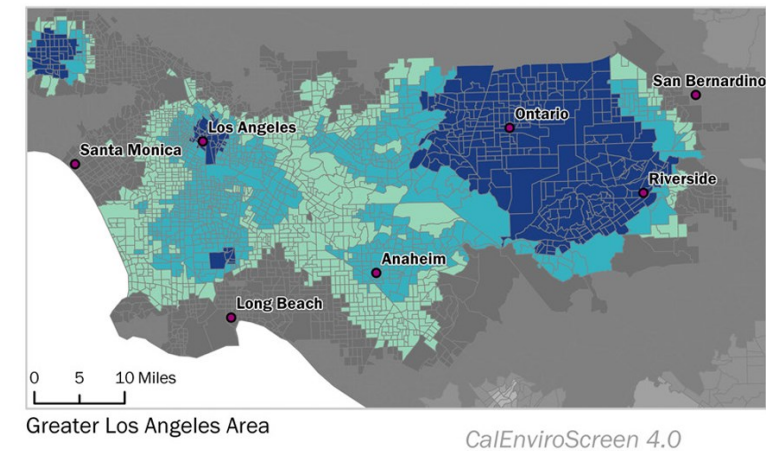
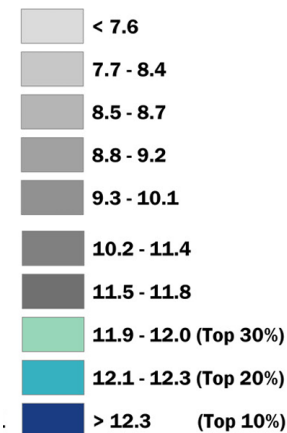
# GHG Emissions and Local Air Pollution are Not Always Well Correlated

- Cap-and-Trade is designed to reduce GHG emissions, which do not always correlate with local air pollution
- [Breadth of independent studies](#), including a [2022 OEHHA report](#), shows Cap-and-Trade has not concentrated harmful air pollution in overburdened communities



Research shows the pollution gap between overburdened and other communities narrowed after Program implementation ([Hernandez-Cortes, Meng 2022](#))

Annual mean PM<sub>2.5</sub> concentration,  $\mu\text{g}/\text{m}^3$  (2015-2017)

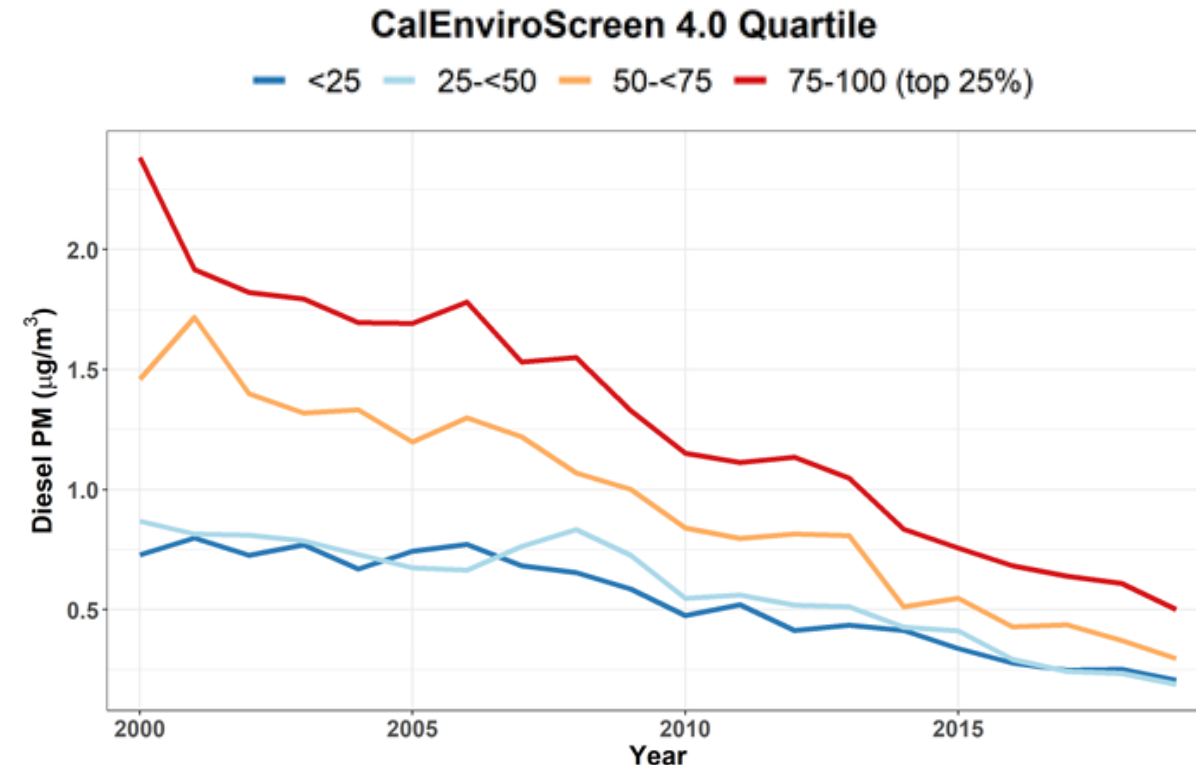


[CalEnviroScreen 4.0](#) shows the distribution of ambient fine particulate matter (PM 2.5) in California census tracts is impacted by geography and non-point sources

# CARB Develops Targeted Regulations to Reduce Harmful Air Pollutants

- CARB and air district efforts have improved air quality across the State and especially in overburdened communities, although persistent disparities remain
- CARB's targeting of heavy-duty transport and goods movement have dramatically reduced toxic diesel exhaust in overburdened communities
- CARB's Community Air Protection Program, established in response to AB 617, works in partnership with local air districts and communities to directly reduce local pollution and reduce exposure for residents

[Cap-and-Trade FAQ](#)  
[OEHHA 2022 Report on Progress Toward Reducing Inequities](#)  
[Community Air Protection Program](#)



*Diesel Particulate Matter Trend by CalEnviroScreen 4.0 Quartile from 2000 to 2019 shows benefits to overburdened communities ([OEHHA 2022](#))*

# Additional Program Evaluations

---

- Cap-and-Trade FAQ & Local Air Pollution  
<https://ww2.arb.ca.gov/resources/documents/faq-cap-and-trade-program>
- Facility-Specific Requirements Alternative Analysis  
[2016 Rulemaking App. C: Revised SRIA](#)
- 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](#)

# Context for Current Cap-and-Trade Program Updates

---

- New legislative targets for 85% emissions GHG reductions and carbon neutrality by 2045
- CARB's 2022 Scoping Plan identified the need for a more ambitious GHG emissions trajectory to support carbon neutrality by 2045
- Updated GHG Emission Inventory
- CARB is considering more stringent allowance budgets to accelerate GHG reductions in support of State goals
- Also considering other Program updates to reflect additional legislation, Executive Orders, State climate policies, and implementation needs



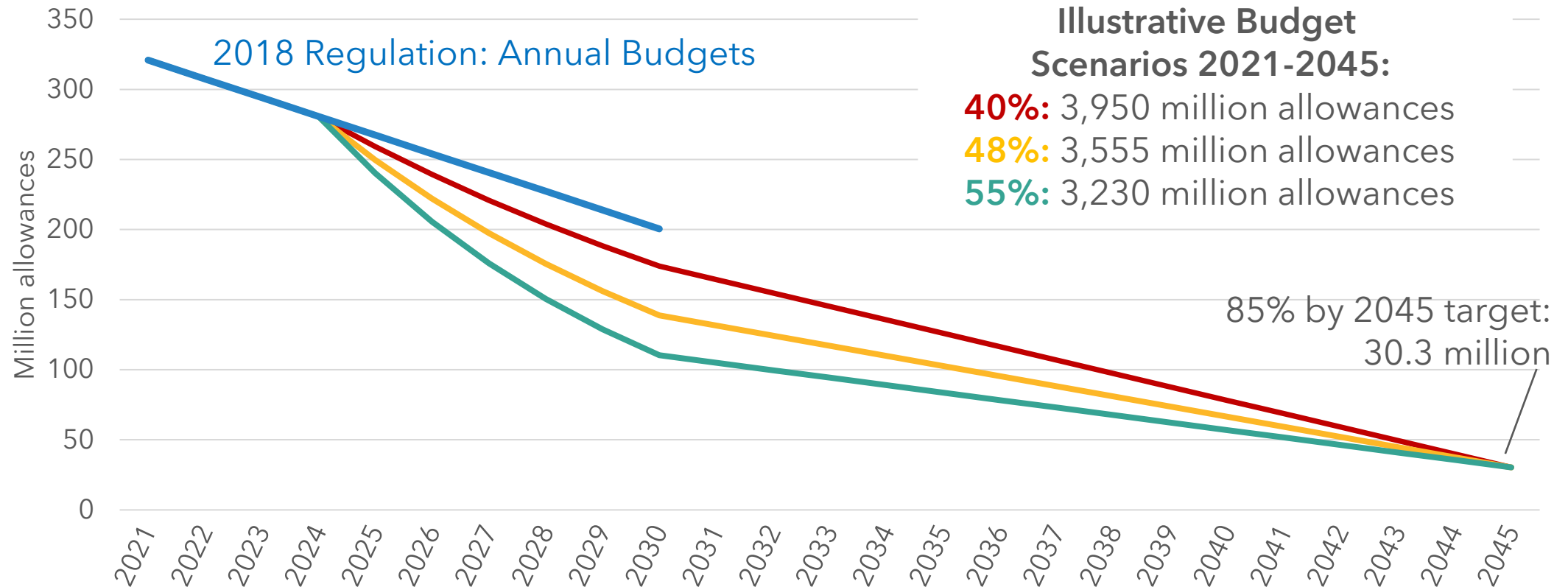
# Potential Updated 2021-2030 Caps

## Scenario Description

- 40% by 2030
  - Adjusted for GHG Emission Inventory updates
- 48% by 2030
  - 2022 Scoping Plan Update highlighted accelerated 2030 target
- 55% by 2030
  - With 7 years until 2030, this represents an upper bound

Target Scenario	Estimated Total 2021-2030 Allowances	Estimated Allowances Removed
<i>Current Regulation</i>	~2,605	--
Potential Update: 40%	~2,490	115
Potential Update: 48%	~2,340	265
Potential Update: 55%	~2,215	390

# Illustrative Aggregate Caps for 2021-2045



*"As regulated industries adapt to future reductions in the emissions cap, California is likely to see more reductions in localized GHG and co-pollutant emissions." ([Cushing, et al. 2016](#))*

# Other Potential Regulation Updates

---

CARB is also considering other potential Program changes, and topics may include:

- Mechanisms to further incentivize industrial decarbonization
- Review of customer and low-income protections provided by utility allocation
- Updated treatment of biogenic CO<sub>2</sub> emissions
- Updates to compliance offset protocols

# Process for Updating the Cap-and-Trade Program

## Context for Cap-and-Trade Program Updates

- Dec 2022 - Board Approved 2022 Scoping Plan Update
- Updated AB 32 GHG Emission Inventory
- Implementation needs and ongoing experience

New executive orders, legislative direction, and Board direction to lay out path to carbon neutrality

## Cap-and-Trade Pre-Rulemaking

- Informal Workshops
  - Evaluate Cap-and-Trade and economy-wide trends
  - Identify regulatory concepts
  - Discuss alignment with latest Scoping Plan
  - Solicit public input

Public workshops to develop concepts aligned with State goals

## Cap-and-Trade Formal Rulemaking

- Issue Notice of Proposed Rulemaking\*
  - Draft regulatory text
  - Initial Staff Report
  - Environmental and economic analyses
- 45-day comment period
- Potential additional amendments and 15-day comment period
- Adoption by CARB at Board Hearing
- Final Staff Report with comment response
- Office of Administrative Law review
- Implementation begins

Formal process with specific timelines

\* By law, CARB has one year to complete the final rule once initial proposal is published

# Questions for Community Feedback

---

- What priorities should CARB have when amending Cap-and-Trade to achieve GHG reductions supportive of State climate goals?
- What 2030 target should the Program use to develop updated allowance budgets?
- How should the value of allowances distributed to utilities be used to maximize ratepayer benefit and protect low-income communities?
- How can Cap-and-Trade balance increasing ambition with managing costs and maintaining clean production within California?

# Questions and Feedback Session

---

- 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
  4. Select English in the interpretation menu (globe) to enable hearing simultaneous English interpretation of any comments provided in Spanish
- Submit written feedback online through December 1 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>

# Next Steps

---

- Submit written feedback online through December 1 at 11:59 p.m.
- 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>