# Cap-and-Trade Program Workshop

JULY 27, 2023



### Workshop Logistics

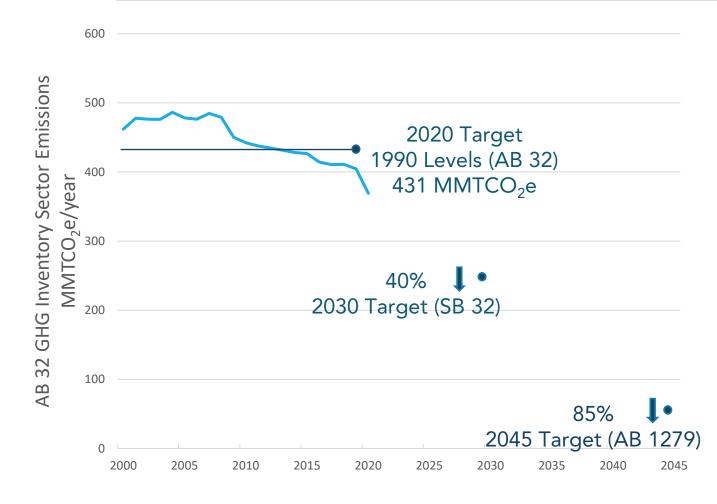
- Workshop materials and comment docket available at Cap-and-Trade Meetings and Workshops webpage
  - <u>https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/cap-and-trade-meetings-workshops</u>
- Written feedback may be submitted to comment docket open through August 17<sup>th</sup> at 11:59 p.m. Pacific Time.
- Public comment after presentation
  - 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 3 minutes. No ceding time to others



### Agenda

- Cap-and-Trade Program overview
- Allowance budget scenarios
- Standardized Regulatory Impact Assessment
- Public comment
- Use of allocated allowance value by electrical distribution utilities and natural gas suppliers
- Allocation to industrial entities
- Voluntary Renewable Electricity Program
- Public comment

### GHG Reduction Targets Achieved AB 32 target in 2014



ACHIEVING CARBON NEUTRALITY BY 2045

GHGs included in statute: Carbon dioxide  $(CO_2)$ , Methane  $(CH_4)$ , Nitrous oxide  $(N_2O)$ , Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulfur hexafluoride  $(SF_6)$ , Nitrogen trifluoride  $(NF_3)$ .

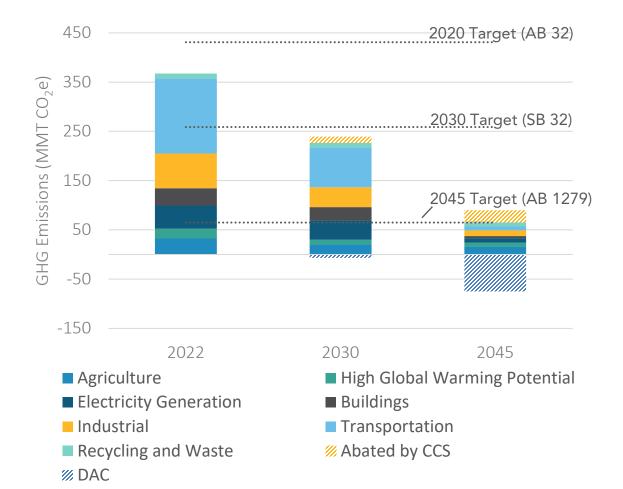
### 2022 Scoping Plan Update A Plan for Science-Driven Climate Action

2030: 48% reduction below 1990

- Increased ambition from SB 32 40% target
- SP scenario incorporates 20 MMTCO<sub>2</sub>e of mechanical carbon dioxide removal (CCUS/DAC) in 2030
- 462x increase in renewable hydrogen

### 2045: 85% reduction below 1990

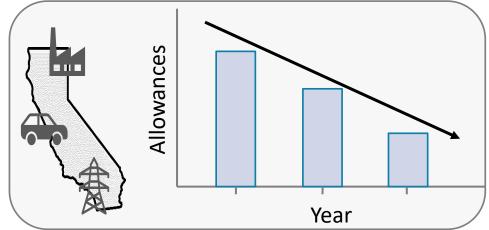
 Need carbon dioxide removal to compensate for residual emissions to achieve carbon neutrality

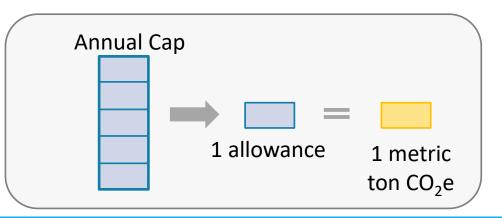


### Cap-and-Trade Overview

Key element of California's portfolio approach to achieve the State's GHG emissions reduction targets

- AB 32 authorized market-based approach for GHG reductions
- Program establishes economy-wide, declining cap on statewide GHG emissions
- Cap set by allowances issued each year according to California's GHG goals
- 1 allowance = 1 metric ton CO<sub>2</sub>e



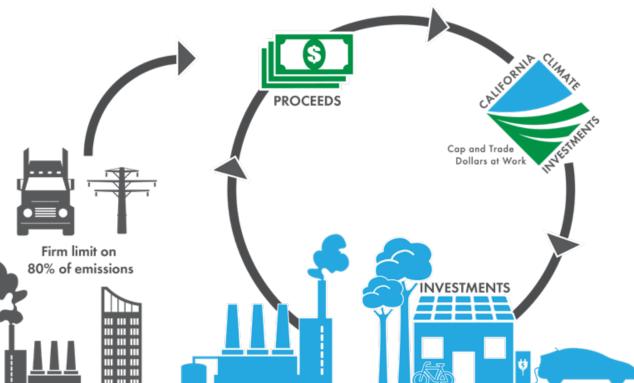


### Cap-and-Trade Overview, cont.



# Cap-and-Trade Program Critical Funding For Equity

- Auction of State allowances solely fund California Climate Investments and funds AB 617 Community Air Protection Program
- \$23B provided; \$9B implemented
- Over 70% implemented benefiting priority populations
- Reduced 97 million metric tons CO<sub>2</sub>e, 80 thousand tons of criteria air pollutants



### CCI Programs Benefit Californians

### CUMULATIVE PROJECT ACHIEVEMENTS

As of November 2022



97.1 MMTCO2e estimated GHG emissions reductions

577,800 individual projects implemented



GHG

10,399 affordable housing units under contract



201,125 urban trees



\$6.7 billion+ (73%) benefiting priority populations



1,069 transit agency projects funded, adding or expanding transit service



427,470+ rebates issued for zero-emission and plug-in hybrid vehicles



891,000 acres of land conservation or restoration

\$9.3 billion implemented through November 2022

### Context for New Cap-and-Trade Program Updates

- 2022 Scoping Plan (SP) Update approved by the Board December 2022
  - Assesses progress toward achieving State climate targets
  - Incorporates targets and actions needed to achieve State's GHG targets
  - Provides economy-wide data to inform review of the Cap-and-Trade Program
- Updated AB 32 GHG Emission Inventory
  - Latest published GHG Emission Inventory included adjustments to align all sector emissions with third-party verified data
- Consider updates to reflect implementation needs, new legislation, Executive Orders, and policies

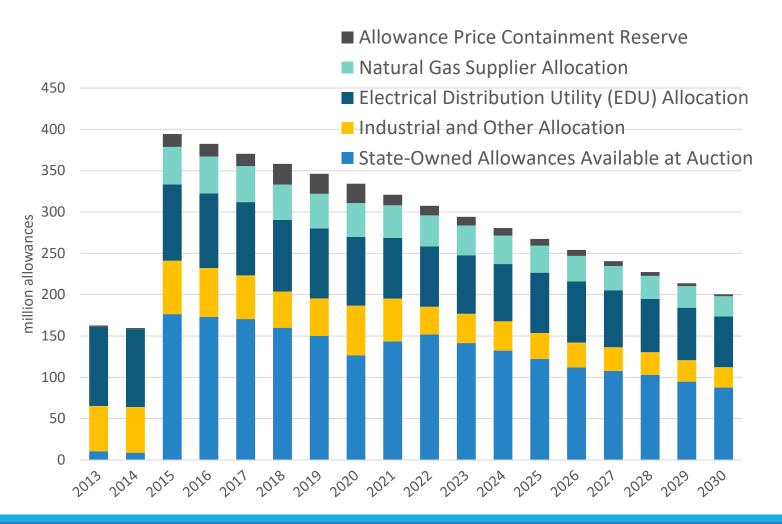
# Initial Concepts: Cap-and-Trade Allowance Budget Scenarios

## Concepts for Cap-and-Trade Allowance Budget Scenarios

- Overview and history of allowance budgets
- Allowance budget scenario framework
- Allowance budget concepts
- Evaluation next steps
- Standardized Regulatory Impact Assessment
- Public comment

### Cap-and-Trade Allowance Budget Overview

- ~4% annual decrease 2020-2030
- Allowances distributed to market
  - Direct allocation
  - Sale at auction
- Allowance Price Containment Reserve (APCR) for cost containment



# History of Cap Setting in Cap-and-Trade Program

### **Initial allowance budgets: 2010 Rulemaking**

 Determined by projected emissions for year that covered source category entered Program.<sup>1</sup>

### 2020 cap: 2010 Rulemaking

- Calculated as the 2008 Scoping Plan estimate of the 2020 cap multiplied by the ratio of 2008 broad scope emissions utilizing MRR data over the 2008 emissions inventory estimate for broad-scope sector categories.<sup>1</sup>
- Resulted in 77.5% of state-wide AB 32 target (return to 1990 by 2020)<sup>1</sup>

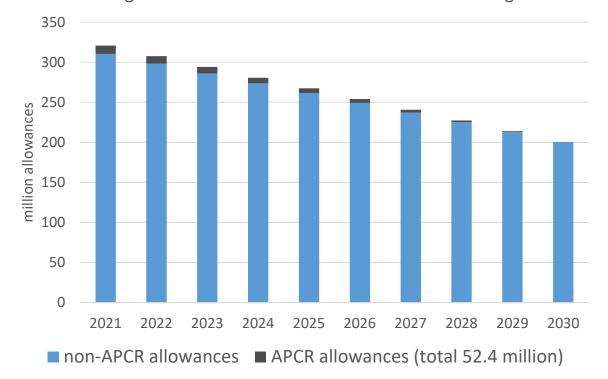
### 2030 cap: 2016 Rulemaking (similar to 2010 Rulemaking)

- Calculated as 77.5% of state-wide SB 32 target (40% reduction by 2030).
- 2021-2030 caps set as linear decline from 2020 cap to 2030 cap

1. https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2010/capandtrade10/capv3appe.pdf (pg E-8)

### Allowances designated to APCR from 2021-2030

- 2016 Rulemaking: 52.4 million allowances from 2021-2030 caps to APCR
- Expectation that 2020 covered emissions would be lower than 2020 cap
- Calculated from 2017 Scoping Plan Reference Scenario 2020 emissions with linear decline to 2030 cap
- Did not alter total annual allowance budgets



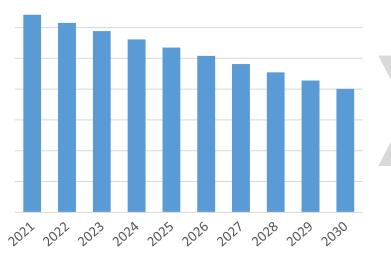
Designation of APCR allowances in 2016 Rulemaking

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2016/capandtrade16/isor.pdf (pg 11-12)

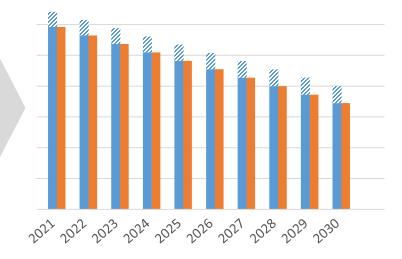
### Populating Cost-Containment Tiers

| Allowance budget year   | APCR  | Price Ceiling |
|---|-------|---------------|
| 2021-2030: account for projected lower<br>2020 emissions in 2016 Rulemaking | 52.4  |               |
| 2013-2020: designated for price containment in 2010 Rulemaking              | 81.2  | 40.6          |
| 2021-2030: account for offset usage in 2018 Rulemaking                      | 22.7  |               |
| 2016, 2017: allowances unsold at auction                                    |       | 37.1          |
| Total   | 156.3 | 77.7          |

### Allowance Budget Scenarios: Framework



Current 2021-2030 Annual Budget



#### Hypothetical scenario with linear decline 2021-2030

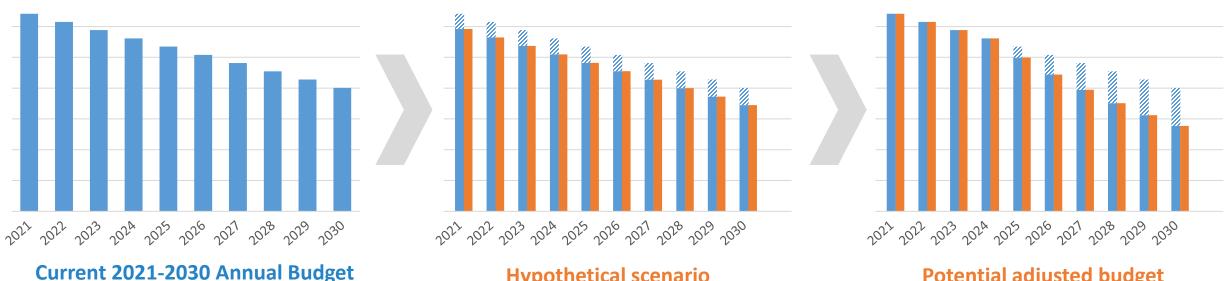
- Total budget supportive of state climate policy
- Reduction from current annual budgets to hypothetical adjusted budgets shown in hashed bars
- Determines cumulative reduction target

# 2022 2023 2024 2025 2026 2021 2028 2029 2030

### Potential adjusted budget with all reductions 2025-2030

- Total budget supportive of state climate policy
- Cumulative reduction from current budget equal to cumulative reduction for hypothetical budgets with linear decline

### Allowance Budget Scenarios: Framework, cont.

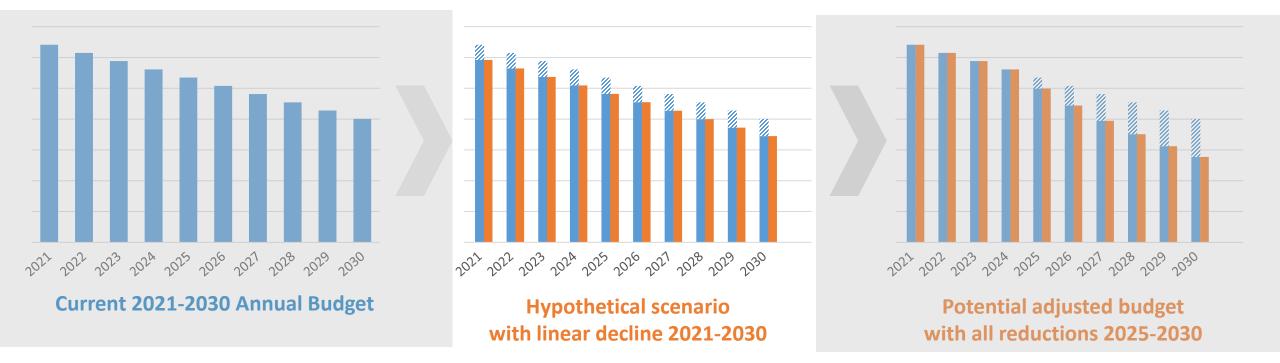


Hypothetical scenario with linear decline 2021-2030

Potential adjusted budget with all reductions 2025-2030

- CARB staff exploring hypothetical linear decline scenarios with 2021 start and 2030 end points informed by 2022 Scoping Plan Update, updated GHG Emission Inventory, and state climate policy
- Hypothetical linear decline scenario for 2021-2030 will determine cumulative reduction achieved by potential adjusted annual budgets for 2025-2030

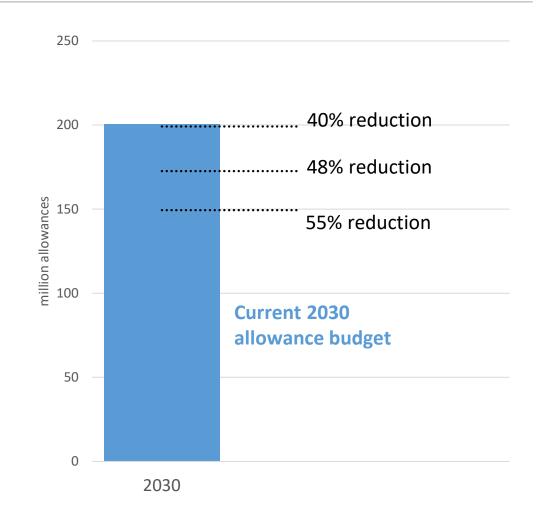
### Hypothetical Allowance Budget Scenarios



- 3 hypothetical allowance budget scenarios with 1 start point (2021) and 3 end points (2030)
- All scenarios: Cap-and-Trade Program calculated to cover 77% of AB 32 GHG emissions sources 2021-2030.
  Based on recent covered emission and GHG Inventory data and 2022 SP Update modeling

### Allowance Budget Scenarios: 2030 end point

- 40% by 2030: 199 MMTCO<sub>2</sub>e
  - Adjusted AB 32 GHG Emission Inventory warrants a review of existing caps
- 48% by 2030: 173 MMTCO<sub>2</sub>e
  - 2022 Scoping Plan Update highlighted accelerated 2030 target
  - Scoping Plan scenario dependent on mechanical carbon dioxide removal and renewable hydrogen
- 55% by 2030: 149 MMTCO<sub>2</sub>e
  - With 7 years until 2030, this represents an upper bound

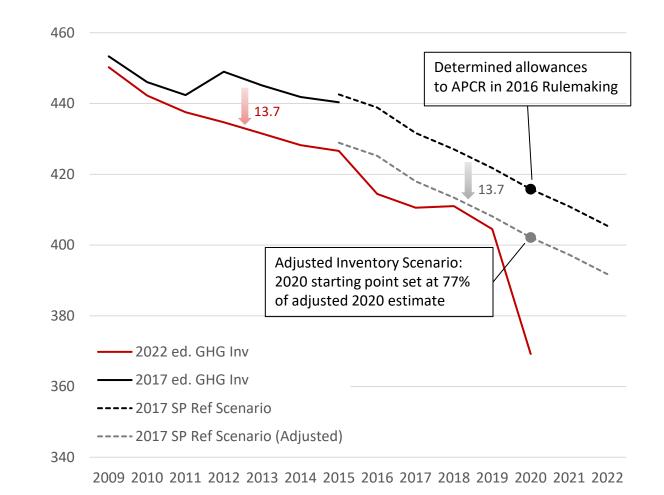


### Allowance Budget Scenarios: 2021 start point

- Adjusted Inventory Scenario
  - Reflects impacts of updates to GHG Inventory on 2017 SP Reference Scenario (used in 2016 Rulemaking for APCR designation)
  - Utilizes adjusted 2017 SP Reference Scenario to determine 2021 start point

### 2021 start point: Adjusted Inventory Scenario

- 2017 SP Update Reference Scenario estimate of 2020 emissions used in 2016 Rulemaking to designate 52 million allowances from 2021-2030 budgets to the APCR
- 2022 ed. GHG Inventory lower than 2017 ed. GHG Inventory by ~13.7 MMTCO<sub>2</sub>e
- Adjust 2017 SP Reference Scenario to reflect updates to GHG Inventory
- Allowance scenario starting point: 2020 set at 77% of updated 2020 estimate based on adjusted 2017 SP Reference Scenario. 2021 determined by linear decrease to 2030 target.



Cumulative Allowance Reduction from Current Budget for 2021-2030

• 3 allowance budget scenarios with 1 start point and 3 end points

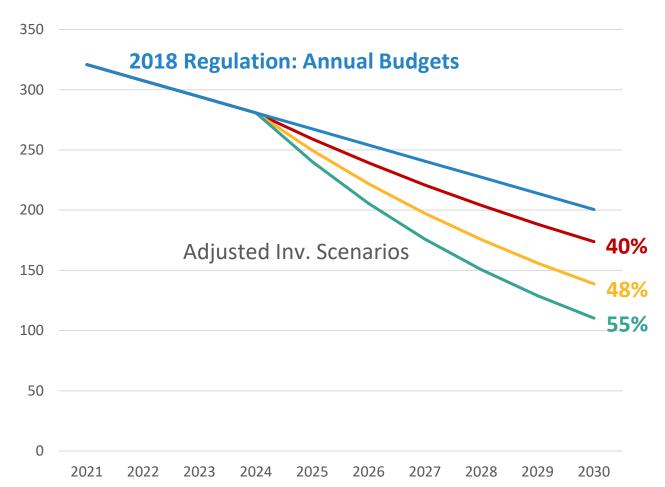
|        | Adjusted Inventory Scenario              |   |  |
|--------|--|---|--|
| Target | Estimated Total 2021-<br>2030 Allowances | Estimated Allowances<br>Removed from Budget |  |
| 40%    | 2,490                                    | 115   |  |
| 48%    | 2,340                                    | 265   |  |
| 55%    | 2,215                                    | 390   |  |

million allowances

### Potential 2021-2030 Allowance Budgets

### All scenarios:

- Same cumulative reduction as corresponding hypothetical scenario
- Adjusts annual budgets for 2025-2030
- Decline path set at constant annual percent change 2024-2030



## Allowance Supply Evaluation Considerations

- 2021 starting point
  - Re-evaluate allowance budgets using method consistent with 2010 and 2016 rulemakings (Adjusted Inventory Scenario)
- 2030 Targets
  - Support statutory targets (40%), increased ambition supportive of 2045 carbon neutrality pathway in Scoping Plan (48%), or upper ambition (55%)
  - Address uncertainty around SB 905 implementation and renewable hydrogen growth in 48%
- Compliance Instrument Supply
  - Potential impact of the 5% bank on budget modeling through 2030 and post-2030

## Total Allowances 2013 through 2030

- Current account holdings as of July 3, 2023
- Includes Québec and California Allowances

| Account                | Million<br>allowances | % of Total 2013-<br>2030 Budget |
|------------------------|-----------------------|---------------------------------|
| Price Ceiling          | 77.7                  | 1.3%                            |
| California APCR Tiers  | 156.3                 | 2.6%                            |
| Québec APCR Tiers      | 39.8                  | 0.7%                            |
| VRE                    | 1.9                   | 0.03%                           |
| Retired                | 2,528.6               | 41.9%                           |
| Private Accounts       | 1,228.7               | 20.4%                           |
| Auction + Allocation + | 2 001 1               | 22.20/                          |
| Issuance (+LUHA)       | 2,001.1               | 33.2%                           |
| Total                  | 6,034.1               | 100.0%                          |

https://ww2.arb.ca.gov/our-work/programs/cap-and-tradeprogram/program-data/compliance-instrument-report

### Potential pools to retire California allowances

| Vintage   | Distribution           | Million<br>allowances |
|-----------|------------------------|-----------------------|
| 2013-2020 | Price Ceiling          | 77.7                  |
| 2013-2030 | APCR                   | 156.3                 |
| 2025-2030 | Auction and Allocation | 1372.6                |

• All pools under consideration for removal of allowances

### Allowance Budget Scenarios: Next Steps

- Build out allowance budgets for 2031-2045
- Evaluate removal of allowances from different available pools and which pools impact stringency
- Evaluate total compliance instrument supply informed by state climate goals and 2022 Scoping Plan modeling
- Allowance <u>cost</u> evaluations for various budget scenarios
- Québec and California will each utilize independent models to estimate allowance costs

# Standardized Regulatory Impact Assessment (SRIA)

- Statutorily required analysis
- Economic impact of proposed major regulations
- Analyses of the costs, benefits, and macroeconomic impacts of the proposed regulation and two additional regulatory alternatives
- May not represent final staff proposal
- Reviewed by Department of Finance

### SRIA Request for Alternatives

- CARB welcomes public input on alternatives to the initial modeled scenarios discussed in this workshop
- In particular, CARB encourages public input on alternative approaches that:
  - May yield the same or greater benefits than those associated with the proposed regulation, or
  - May achieve the goals at lower cost, and
  - Consistent with requirements in statute

### SRIA Request for Alternatives, cont.

- Ensure the submission discusses the alternative's ability to fulfill the purposes of the initial modeled scenarios as CARB has presented it
- Include the associated cost/benefit information and data sources to enable comparison of economic impacts
- Include a clear description of the basis for any cost calculations

### Additional Program Evaluations

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

Cap-and-Trade Program | California Air Resources Board

Questions and Feedback Session: Allowance Budget Scenarios

- Public Comment Instructions
- uter Hand
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### Potential Updates to Allowance Allocation

- Electrical distribution utilities (EDUs) and natural gas suppliers (NGSs) allocation
  - EDU and NGS use of value provisions for ratepayer protection
  - EDU POU consignment requirements
- Industrial allocation to protect against emissions leakage
  - Allocation related to electricity purchases
  - New product allocation
  - Allocation for biofuels production
  - Benchmarks for oil and gas production

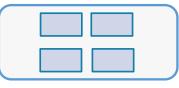
## Utility Allocation for Ratepayer Protection

CARB allocates allowances to electrical distribution utilities (EDUs) and natural gas suppliers (NGSs) for the protection and benefit of ratepayers

- Most allowances consigned to auctions with most proceeds returned to residential ratepayers as flat Climate Credits
- Non-volumetric credits essential tool for protecting residential ratepayers from the costs of the Program while maintaining the carbon price signal



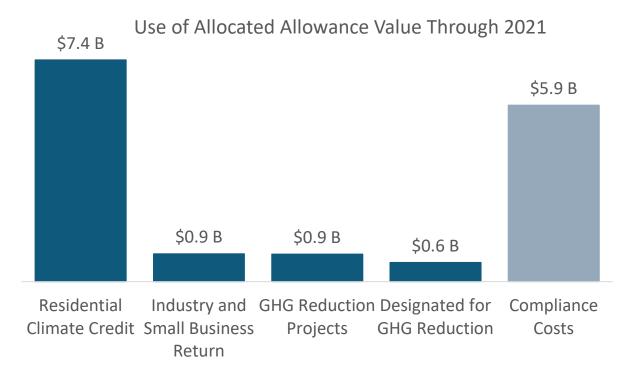
**Free Allocation to Utilities** 





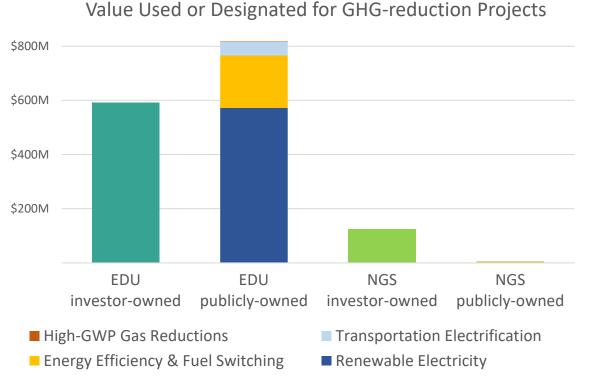
# EDU and NGS Use of Allocated Allowance Value 2013-2021

CARB allocates allowances to electrical distribution utilities (EDUs) and natural gas suppliers (NGSs) for the protection and benefit of ratepayers

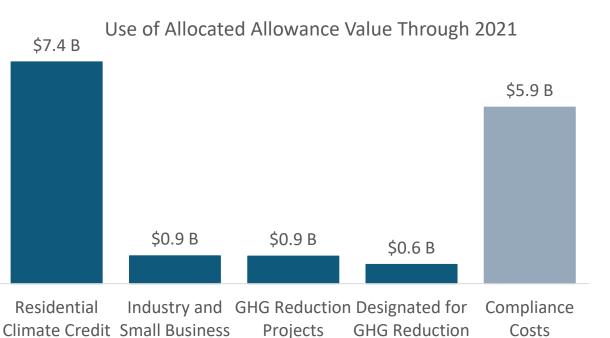


#### EDU and NGS Use of Allocated Allowance Value 2013-2021

CARB allocates allowances to electrical distribution utilities (EDUs) and natural gas suppliers (NGSs) for the protection and benefit of ratepayers





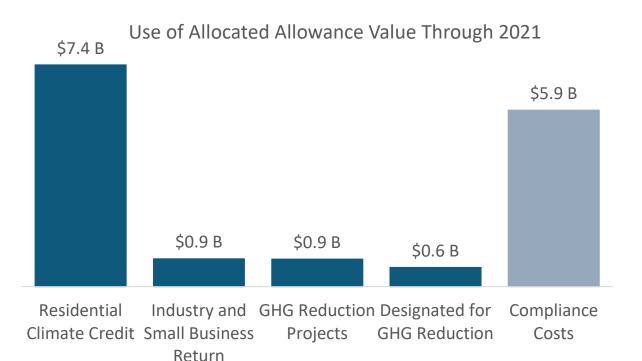


Return

#### Allowed Uses of Allocated Allowance Value

- Investor-owned EDUs: Must consign all
- Publicly-owned and electrical cooperative EDUs: Currently may choose to consign or use for Program compliance
- NGS: Must consign a minimum percentage of allocated allowances; 100% consignment required by 2030

Consignment incentivizes GHG reductions by end-users, benefits energy efficient ratepayers, and maintains the carbon price in energy rates



# EDU and NGS Allocated Allowances: Use of Value Requirements

- Regulation sets requirements for all utility use of allowance value
- Publicly owned utilities (POU) and cooperatives (COOP): Use allocated allowances per the Regulation and decisions of local governing bodies
- Investor-owned utilities (IOU): Also comply with statutory and CPUC directives for auction proceeds
  - SB 1018 (2012) set requirements for electricity IOUs
  - SB 1477 (2018) \$200M to building decarbonization from NGS IOU proceeds
  - CPUC decisions (2020-2022) directed \$120M of NGS IOU proceeds to biomethane projects and heat-pump water heater incentives
  - Remainder of proceeds for climate credits -- residential ratepayers for natural gas IOUs, and residential, small-business, and EITE industrial ratepayers for electricity IOUs

EDU and NGS Allocated Allowance Value: Supporting State Climate Policy

- Allocated allowance value requirements are designed to protect ratepayers and support the state's decarbonization efforts
- Scoping Plan Update indicates need to transition buildings from natural gas to clean electricity
- Cost impact of building electrification may disproportionately burden low-income ratepayers
- High retail electricity rates pose further equity concerns
- Requirements for non-volumetric returns could be updated to help alleviate this burden
- Requires coordination with CPUC

#### EDU and NGS Allocated Allowances: Feedback

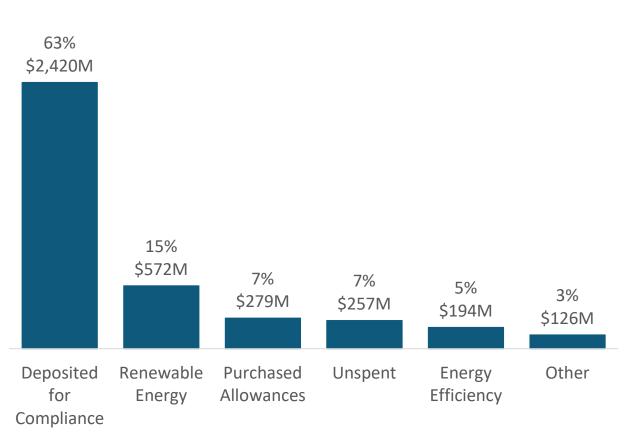
- How could EDU and NGS allocation be used to maximize ratepayer benefit and support Scoping Plan targets?
- How could the requirements for use of allocated allowance value be designed to better protect low-income ratepayers and priority communities?
- Should requirements for the use of allocated allowance value differ between electricity and natural gas utilities? Between IOUs, POUs and COOPs?

### EDU POU and COOP Consignment: Background

#### EDU POUs and COOPs

- Not required to consign allowances
- Since Program inception, 63% allocated allowance value deposited for compliance
- POU and COOPs currently consign most allocated allowances

#### EDU POU and COOP Use of Allocated Allowance Value, 2013-2021



#### EDU POU and COOP Consignment: Considerations

- Monetization of allowances through consignment supports transparency that value is used for ratepayer benefit
- Consignment ensures that the free allocation of allowances to EDUs does not impact carbon pricing of electricity or competition in electricity markets
- Most POUs/COOPs now participate in the CAISO's Energy Imbalance Market
- POU/COOP consignment supports parity with existing requirements for IOU EDUs and NGS
- Needs to be coordinated with CPUC

#### EDU POU and COOP Consignment: Feedback

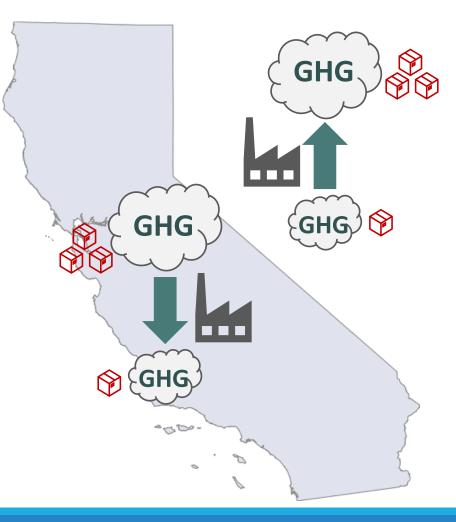
- Should the Regulation require POUs and COOPs to consign allowances similar to IOUs?
- Should all POUs and COOPs be treated the same, regardless of size, or other factors?

## Industrial allocation topics

# Industrial allocation to protect against emissions leakage

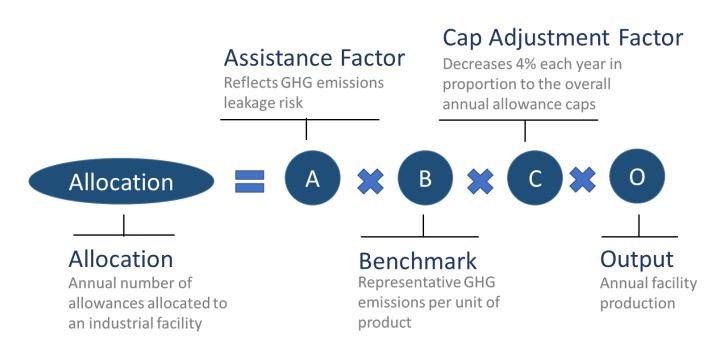
Pursuant to AB 32, Cap-and-Trade is designed to minimize the potential for emissions leakage

- Emissions leakage is decrease in GHG emissions in-state with a corresponding increase in out-ofstate emissions
- May occur when compliance costs faced by regulated entities not shared by competitors out-of-state
- Leakage risk addressed by direct allocation to covered industrial entities



#### Industrial Allocation: Product-based Method

- Preserves incentives for efficient in-state production
- Used for over 98% of industrial allocation
- Declining cap adjustment factor protects against disproportionate allocation to industry relative to total budget



Emission-Intensive, Trade-Exposed (EITE) Electricity Allocation: Background

- CPUC directs electricity IOUs to rebate EITE industrial customers to address leakage risk from electricity purchases
- CPUC calculates rebate using methods similar to CARB's industrial allocation
- CARB's industrial allocation methods do not account for carbon price embedded in purchased electricity
- CARB annually provides needed facility data to CPUC

Emission-Intensive, Trade-Exposed (EITE) Electricity Allocation: Proposal

- Staff is considering directly allocating to industrial covered entities to address carbon costs associated with purchased electricity
- Ensures that covered industrial customers of POU are provided same leakage protection as IOU customers
- Past regulatory amendments supported this transition by deducting allowances from EDUs post-2020
- Additional amendments required to enable direct allocation from CARB to industrial covered entities

Emission-Intensive, Trade-Exposed (EITE) Electricity Allocation: Feedback

Staff is evaluating completing transition to transfer the process of providing value to industrial covered entities for the carbon costs in electricity purchases from CPUC to CARB

- Should CARB make this change?
- Do covered industrial customers of POUs and COOPs have similar leakage risks and receive similar leakage protection?

#### New Product Allocation: Background

- To receive product-based allocation, an industrial facility must produce an eligible product listed in Table 9-1
- A facility may start producing a new product, but may not receive allocation for this product until it is added to Table 9-1, which requires a regulatory amendment
- Facilities are exposed to leakage risk in interim period
- Mechanism needed in the Regulation to address this timing issue

#### New Product Allocation: Feedback

- Should CARB incorporate a mechanism to address this temporary period of leakage risk?
- When new products and new product definitions are added to the Regulation, should CARB also provide allocation for prior years, corresponding to the start of production?

#### Potential Product and Benchmark Updates

- Biogenic fuel production sector
- Cement sector
- Chemical production sector
- Milk processing sector
- Mining sector
- Oil and Gas sector
- Snack food sector

### Drop-in biogenic fuel production: Background

- 2022 Scoping Plan lays out path to decrease petroleum fuel demand by 94% by 2045
- Ongoing demand for legacy on-road, aviation, and off-road
- Zero emission vehicle Executive Order (N-79-20) calls for refineries to transition away from producing petroleum fuels
- Modifications are occurring to existing in-state petroleum refineries to manufacture biogenic fuels
- Evaluating potential for Program to integrate direction from the ZEV EO and the most recent Scoping Plan

## Drop-in biogenic fuel production: Allocation

#### • Table 9-1

| Activity                                 | Output Unit                                  | Benchmark |
|--|--|-----------|
| Petroleum refining                       | complexity<br>weighted barrel                | 3.89      |
| On-purpose<br>hydrogen gas<br>production | metric ton of on-<br>purpose hydrogen<br>gas | 8.94      |
| Sulfuric Acid<br>Regeneration            | short ton of sulfuric acid                   | 0.147     |

- No current benchmark for "biogenic fuel production" activities in Table 9-1
- "Biogenic fuel production" facilities anticipated to engage in other Table 9-1 activities
- Energy-based allocation not applicable to facilities with activities in Table 9-1

#### Drop-in biogenic fuel production: Feedback

- What activities and outputs should be used to provide product-based allocation for "biogenic fuel production" activities?
- From what data sources and years should applicable benchmarks be generated?

Considerations

- One-product one-benchmark framework
- Consistent approach for facilities solely processing biogenic feedstocks and facilities processing both biogenic and petroleum feedstocks
- Data availability and rulemaking timelines

#### Oil and gas production: Background

- Crude oil extraction within California is steadily declining<sup>1</sup>
- GHG intensity of crude oil extraction in California is increasing<sup>2</sup>
- Carbon intensity of crude refined in California (2021 data)<sup>3</sup>
  - California-produced crude oil: 16.8 gCO<sub>2</sub>e/MJ
  - Imported crude oil: 11.4 gCO<sub>2</sub>e /MJ
- UCSB study concluded key reason for high emission intensity of California crude was use of thermal enhanced oil recovery (EOR) utilizing fossil gas combustion for steam production<sup>2</sup>

<sup>1</sup> https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/annual-oil-supply-sources-california

<sup>2 &</sup>lt;u>https://drive.google.com/file/d/1ENx26PelwDr2NOjvF8igZHi15ZxNwk5r/view?pli=1</u>

<sup>3</sup> https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/crude-oil/2021\_crude\_average\_ci\_value\_final.pdf

#### Oil and gas production: Allocation

- Thermal EOR production: Uses injected steam to increase recovery of crude oil
- Non-thermal production: All other extraction methods other than thermal
- Oil and gas extraction: benchmarks differentiated by production method

| Activity   | Output                            | Benchmark |
|--|-----------------------------------|-----------|
| Thermal Enhanced Oil<br>Recovery (EOR) Crude<br>Oil Extraction | barrel of oil<br>equivalent (boe) | 0.0811    |
| Non-thermal Crude<br>Oil Extraction                            | barrel of oil<br>equivalent       | 0.0076    |

 Through budget year 2023 provided ~80 million allowances for oil and gas extraction, with a majority of that for thermal production

#### Oil and gas production: Feedback

• Alternative approaches to allocation for oil and gas extraction

Considerations

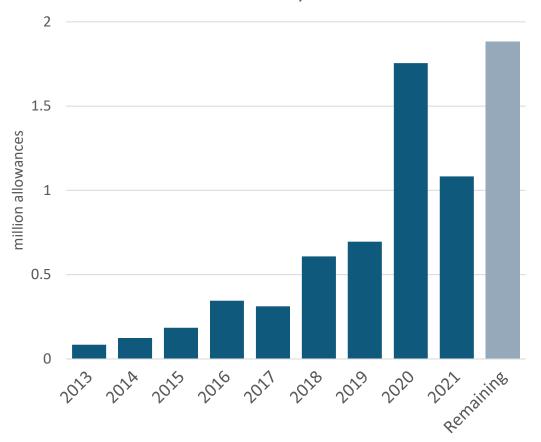
- One-product, one-benchmark framework
- Incentivize lowest GHG method of production
- Aligned with state climate policy and 2022 Scoping Plan Update
- Considerate of emissions leakage risk

### Voluntary Renewable Electricity (VRE) Program: Background

- Supports purchases of renewable electricity not mandated by other programs
- Provides a mechanism for the recognition of voluntary purchases of renewable electricity in the Cap-and-Trade Program
- CARB retires allowances each year for eligible voluntary renewable electricity generated in the previous year

#### Voluntary Renewable Electricity (VRE) Program: Status

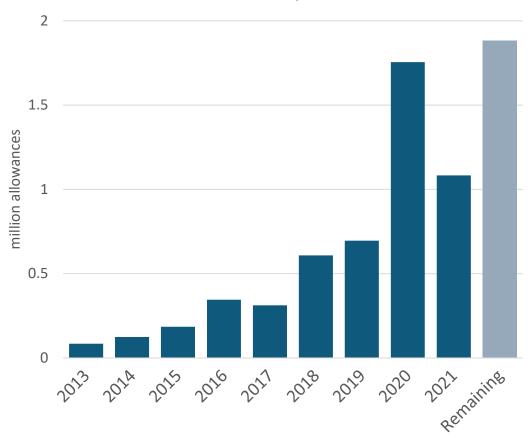
- Specified percentage of 2013-2020 allowance budgets set aside into VRE Reserve
  - Over 7 million allowances were set aside
  - Approximately 1.9 million allowances remain
- If depleted, entities will not be able to recognize voluntary renewable electricity purchases through the VRE Program



#### Allowance Retirements by Generation Year

#### Voluntary Renewable Electricity (VRE) Program: Feedback

- Should the VRE Reserve be replenished?
- From what budgets should the VRE Reserve be populated?
- What number of allowances should be designated to the VRE Reserve?



#### Allowance Retirements by Generation Year

Questions and Feedback Session: Allowance Allocation and VRE

- Public Comment Instructions
- u Raise Hand
- 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 3 minutes, no ceding time to others
- Submit written feedback online through August 17th at 11:59 p.m.
  Pacific Time
- Link to submit written feedback available at Cap-and-Trade Meetings and Workshops webpage
  - <u>https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/cap-and-trade-meetings-workshops</u>

#### Next Steps

- Submit written feedback online through August 17, 2023 at 11:59 p.m.
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