

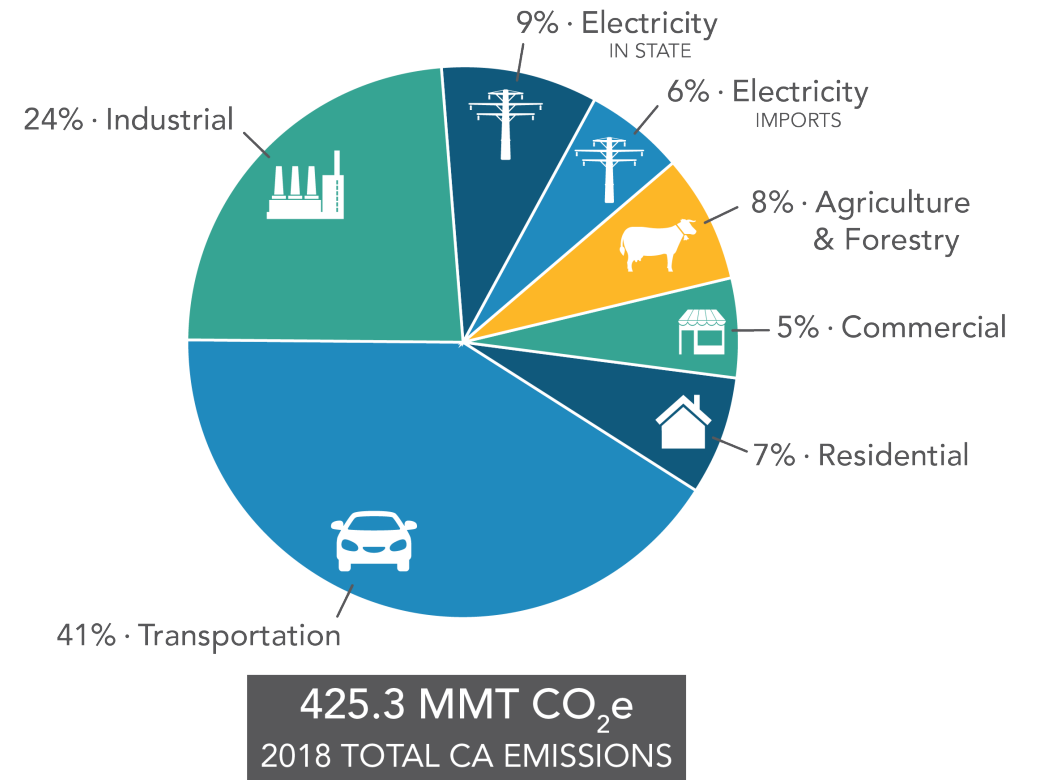
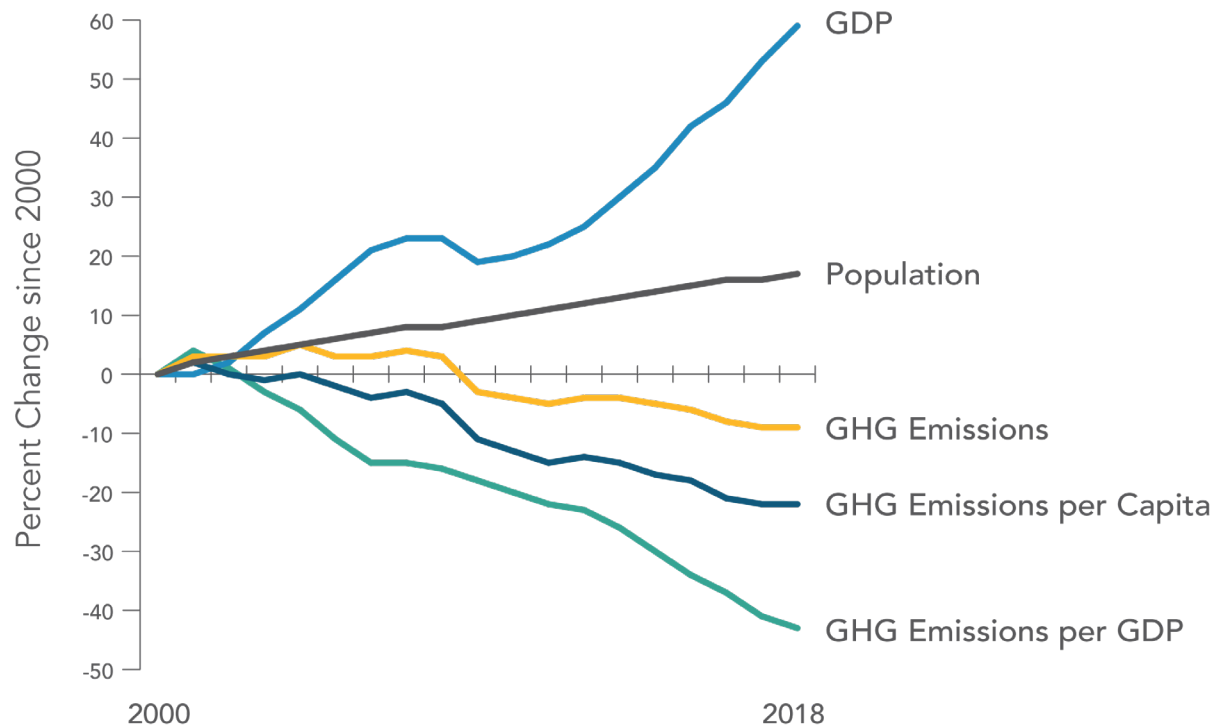
Overview of California Cap-and-Trade Program

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California's Trends



Source: 2020 Edition, California Greenhouse Gas Emission Inventory: 2000-2018

Cap-and-Trade Program Background & Goals

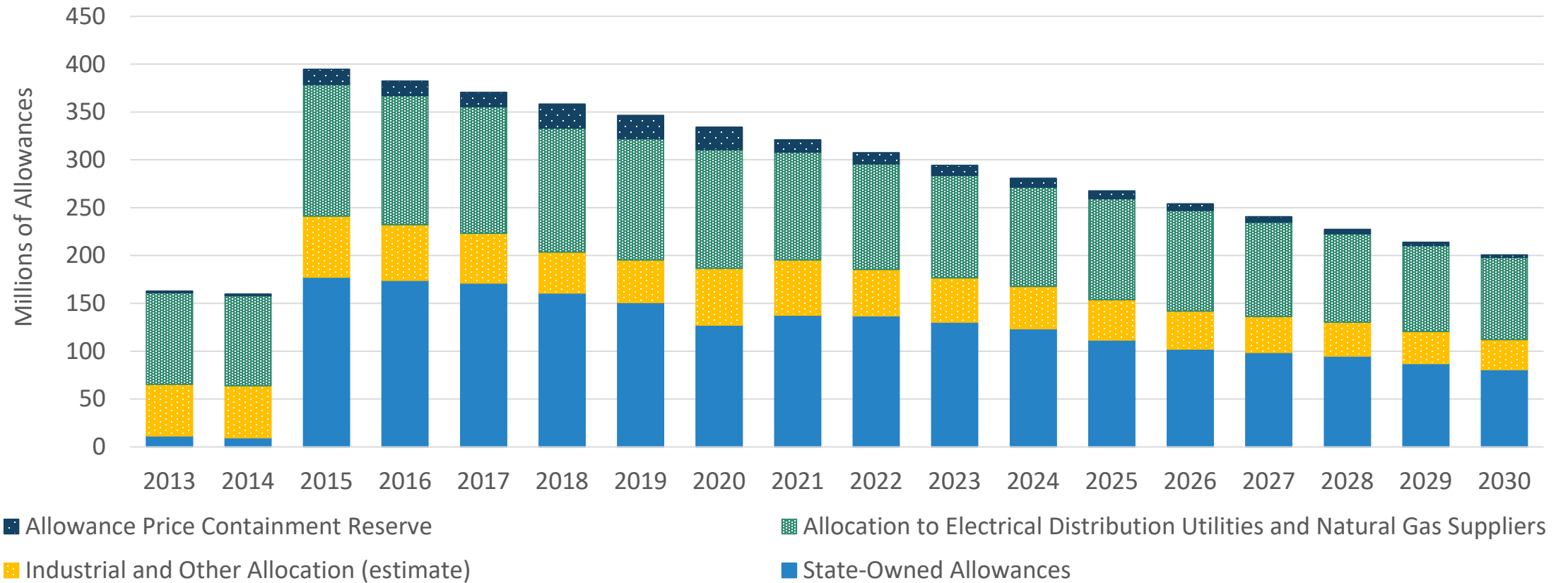


- Critical part of State strategy to achieve AB 32 and SB 32 GHG reduction targets
 - Ensure GHG reduction targets are realized through a limit
 - 2017 Scoping Plan that includes Cap-and-Trade is four times less costly than alternatives
- Works in concert with other complementary air quality and climate policies
 - Program designated in AB 398 to reduce GHG emissions for oil and gas extraction and refinery sectors
- Provide compliance flexibility to achieve cost-effective reductions
- Facilitate integration of regional, national, and international GHG reduction programs

Cap-and-Trade: Facts and Figures

- Covers ~80% of State's emissions
- ~450 covered entities in the Program
 - Large industrial sources & electricity generators with emissions $\geq 25,000$ MTCO₂e per year
 - Electricity importers, natural gas suppliers, and transportation fuel suppliers
- 35 auctions held to-date (27 joint-auctions)
 - First joint auction with Québec was held in November 2014
- Over \$14 billion generated for California Climate Investments
 - ~50% of investments are benefiting disadvantaged communities

Cap-and-Trade Allowance Budgets



Source: CARB, 2018

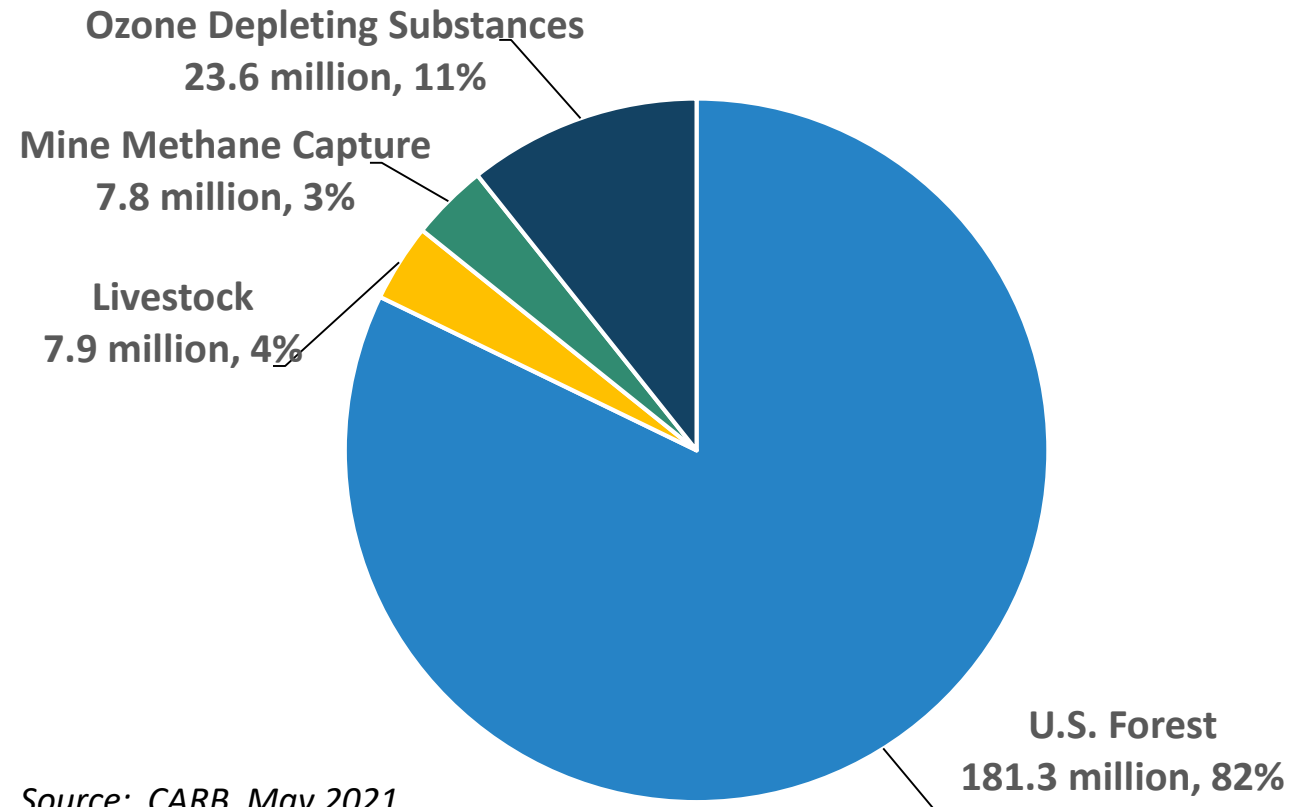
Allowance Value for Public Benefit

- CARB allocates to electricity and natural gas utilities on behalf of their ratepayers in accordance with the goals of AB 32
- Allowances allocated to electric and natural gas utilities must be used for the primary benefit of retail ratepayers
 - Majority of value is returned to ratepayers in the form of biannual climate credits
 - Other uses include: compliance, energy efficiency, renewable energy, building and transportation electrification
- Greater than 50% of monies from state owned allowances is invested in communities heavily burdened by air pollution

Compliance Flexibility

- Allowances
- CARB issued Compliance Offset Credits (4% limit)
- Banking subject to holding limits
- Multi-year compliance periods

Offset credits issued, May 2021



Source: CARB, May 2021

Cap-and-Trade Accounting

- Cap-and-Trade Program and Mandatory Reporting Regulation (MRR) collect emissions data and calculate compliance obligations annually based on covered emissions
 - California power plants report facility-level emissions
 - Electricity importers report imports based on physical delivery of electricity by source
 - Renewable energy is generally assigned a zero emission factor, as are some other electricity sources
- Cap-and-Trade Program compliance is based on compliance instruments retired
 - One allowance = one offset credit = permit to emit one MTCO₂e

Market Integrity

- Mechanisms for ensuring market integrity
 - Purchase and holding limits
 - Registration and disclosure requirements
 - Tracking system
 - Financial penalties
- Regulatory Oversight (early stages, lapses, need to re-establish)
 - Coordinate with the U.S. Commodity Futures Trading Commission (CFTC) and Federal Energy Regulatory Commission (FERC)
- Enforcement
 - Coordinate with California Department of Justice

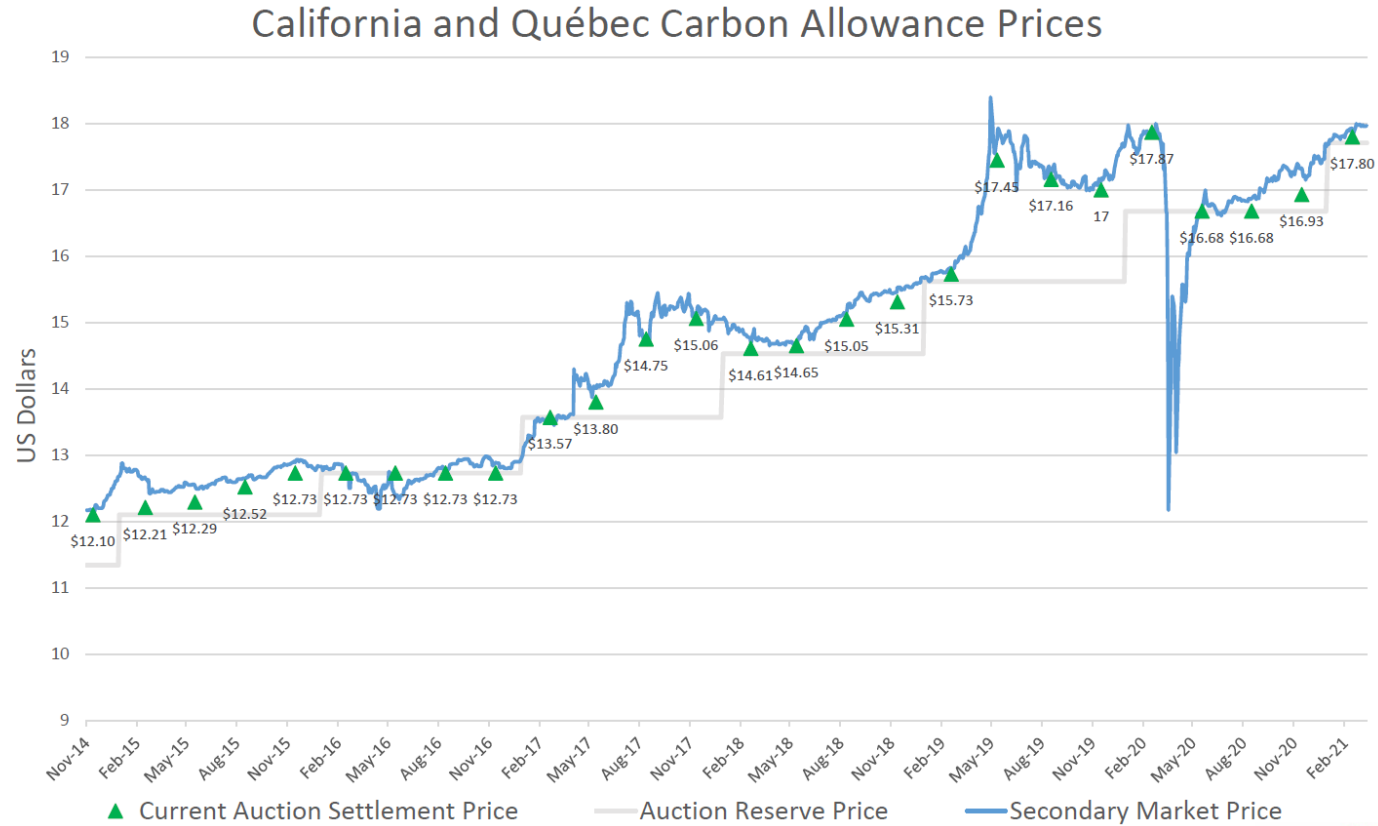
Unsold Allowances at Auction

- “Self-ratcheting” mechanism to remove allowances if low demand at auction
 - Withhold unsold allowances from auctions until two consecutive auctions clear above the auction reserve price
 - Previously unsold allowances slowly returned to market if demand increases
 - Maximum number of unsold allowances that can be returned is 25% of the total allowances offered for auction
 - Allowances that remain unsold after 24 months are removed from circulation and set aside for price containment reserve

Secondary Market Activities

- CARB's Market Monitoring Section provides market program oversight and analysis
- Independent Market Monitor performs market analysis of auctions and secondary markets
- Commodity exchanges help provide price transparency for carbon allowances and offsets (ICE, Nodal, etc.)
- Price reporting services (Argus, Bloomberg, OPIS, etc.) offer daily price reporting on exchange and over-the-counter carbon market prices and other secondary market analyses (price forecasts)
- Over-the-counter transactions and exchange deliveries are required to be recorded in our centralized tracking system
 - Information recorded includes the number and type of instruments, agreement and settlement date, price paid, and currency type
 - Quarterly and annual market summary transfer reports are made public on the [Cap-and-Trade Program Data Page](#)

Cap-and-Trade Allowance Prices



Secondary Market Prices are a composite of commodity exchange futures contract prices for near month delivery and a survey of OTC brokered transactions for California Carbon Allowances. Secondary market prices are provided with permission of [Argus Media Inc.](https://www.argusmedia.com)



Western Climate Initiative, Inc. & Linkage

- California and Quebec linked carbon markets
 - Same market rules, including unsold allowance mechanism
 - Mutual recognition of each others issued allowances and offsets
 - No limits on origin of compliance instruments used for compliance
- Western Climate Initiative, Inc.
 - Non-profit
 - Provide carbon market administration services
 - Single registry system
 - Same auction platform
 - Market monitor services

Resources

- Cap-and Trade Website:

<https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program>

- Mandatory Reporting Website:

<https://ww2.arb.ca.gov/our-work/programs/mandatory-greenhouse-gas-emissions-reporting>

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