

Background

Cap-and-invest programs are market-based policies designed to reduce greenhouse gas (GHG) emissions by placing a binding, declining limit on total emissions while allowing regulated entities flexibility in how they comply. Under these programs, a regulatory authority sets an emissions cap on one or multiple sectors of the economy and issues a set number of tradable permits (“allowances”) equal to the emissions cap, with each allowance representing one metric ton of carbon dioxide (CO₂). To comply, covered entities must retire allowances equal to their emissions. Allowances are typically distributed through a combination of free allocation and state-run auctions, generating revenue for consumer rebates and pollution abatement.

Cap-and-Invest, Affordability, and Economic Opportunity

Revenue from the sale of allowances can be reinvested in a state’s economy to support energy affordability, infrastructure development, energy efficiency upgrades to homes and businesses, and clean energy deployment. All of these reduce energy bills and create jobs.

- Californian households have received more than \$16 billion in utility bill credits funded by cap-and-invest.
- Since 2005, RGGI has provided “over \$20 billion in energy bill savings.”
- Cap-and-invest programs for power generation could reduce consumers’ electricity bills by 6% on average in Arizona, Colorado, and New Mexico.

Sources: Schneer, DeGolia, and Kiely 2025; and Roy and Burtraw 2025

Key Elements

1. **GHG Emissions Monitoring, Reporting, and Verification:** To effectively implement policies that reduce pollution, a mandatory system for monitoring, reporting, and verifying GHG emissions must be put in place. States can adopt annual reporting requirements and establish emissions baselines from which to measure progress (CNEE 2020).
2. **Program Cap:** Cap-and-invest programs set a binding, predictable, declining limit on emissions in alignment with state policy goals. Each year, the program issues emission allowances equal to the cap. Over time, the number of new allowances issued each year declines. (Cummins 2022).
3. **Covered Entities:** Covered entities commonly include transportation fuel suppliers, natural gas utilities, electric suppliers, and large industrial facilities emitting above a defined threshold, often 25,000 metric tons of CO₂ annually (Cummins 2022; CNEE 2020; CARB 2026a; WA Ecology n.d).
4. **Compliance and Flexibility:** Regulated companies comply by submitting allowances equal to their emissions over a defined reporting period. Companies have flexibility to determine when they will reduce their emissions versus purchasing, selling, or trading allowances. Trading among regulated entities incentivizes achieving the lowest-cost emissions reductions and allows companies to monetize their emissions reduction activities. In addition, companies can bank allowances for use in future years, which incentivizes early action.
5. **Allowance Allocations and Auctions:** Allowances are primarily distributed through state-run auctions, although some programs allocate a portion at no cost to energy-intensive or trade-exposed industries and regulated utilities to mitigate economic risks and protect consumers. Utilities are typically required to use the proceeds from these allowances to benefit customers, for example through utility bill credits and infrastructure investments.
6. **Revenue Investment:** Revenue generated through auctions can be reinvested in a wide variety of activities, including clean energy deployment, electrification, workforce development, co-pollutant reduction, natural climate solutions, and energy bill assistance. Program rules generally require transparent reporting, enabling periodic evaluation of emissions outcomes, economic impacts, and distributional effects (CARB 2026a; Cummins 2022).

7. **Cost Containment:** Most programs incorporate cost-containment mechanisms to manage price volatility and compliance risk, including auction reserve prices (price floors), allowance price containment reserves, and price ceilings. Some systems also permit limited use of offset credits from emissions-reduction projects outside of covered sectors, subject to certain constraints to maintain program integrity (Cummins 2022; CARB 2026a; WA Ecology n.d.).

Additional Considerations

1. *Cost-effective emissions reductions depend on cap stringency.* Cap-and-invest programs enable regulated entities to minimize compliance costs by allowing firms to determine the most cost-effective means of reducing emissions, including through allowance trading and banking. However, weak or overly generous caps can dampen price signals (see: Weeks and Ryan 2025).
2. *Design programs to be flexible and complementary to other policies.* Cap-and-invest frameworks can be adjusted through changes to the emissions cap, allowance supply, and price-containment mechanisms, allowing programs to evolve as emissions trends and economic conditions change (ICAP 2022). Cap-and-invest programs are often implemented alongside complementary policies such as renewable energy standards, vehicle emissions regulations, and building codes.
3. *Consider opportunities for regional coordination.* Linked markets improve market stability by expanding the pool of covered entities, reduce administrative costs by harmonizing market rules, and reduce per-ton compliance costs by widening the pool of potential emissions reductions (see: CARB 2026b).
4. *Protect local air quality.* Experience shows that GHG reductions do not always produce proportional reductions in other air pollutants, and emissions reductions may occur unevenly across different sources or sectors. Consider minimum investment requirements and enhanced air-quality monitoring (Colbert-Sangree 2023; Cummins 2022; Sutter 2025).

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