



TCI AND TRANSPORTATION CAP-AND-TRADE:

FACT SHEET OF ENVIRONMENTAL JUSTICE CONCERNS

Summary of Concerns

- **The market orientation of regulating carbon emissions with cap-and-trade policies poses significant risks for communities with more pollution and higher co-pollutant intensity of carbon emissions—and these are typically communities of color.**
- **The best available evidence shows that cap-and-trade reinforces or worsens localized pollution disparities affecting low-income communities and especially communities of color;**
- **Transportation cap-and-trade could replicate similar inequities but more intensively and on a larger scale;**
- **Potential cap-and-trade reforms to remedy pollution disparities in low-income communities are much less likely to be effective for mobile sources of pollution as compared with stationary sources such as power plants and factories;**
- **To the extent that they are not designed (or cannot be designed) with a clear and accountable goal of reducing local pollution disparities, cap-and-trade policies are legitimately described as contributing to environmental racism.**
- **Climate policy planning processes that minimize or tokenize representation of the most impacted communities demonstrate profound and increasingly life-threatening failures of our democracy.**

I. What is the Transportation and Climate Initiative (TCI): “RGGI on Wheels”

The Primary Focus of TCI is Establishing a Regional Cap-and-Trade System for Regulating Transportation Pollution

TCI seeks to build on the 10-year-old Regional Greenhouse Gas Initiative’s (RGGI) cap-and-trade system for power plants in Northeast and Mid-Atlantic states with the goal of forging a similar multi-state cap-and-trade system to regulate transportation fuels in participating states.

Over ten years in the making, TCI is currently engaged in a year-long official design and alignment process led by government agencies and informed by consultants and academics, with only limited participation from leaders and experts representing the communities most impacted by transportation

pollution. The emerging policy raises significant concerns for the most impacted communities, which are largely low-income communities of color.

TCI's Cap-and-Trade Policy Coming into Focus

Covered Fuels

- Motor Gasoline: 66 percent of regional transportation fuel mix.
- Diesel Fuel: 18 percent of fuel mix, but the largest mobile source of non-GHG co-pollutants and related public health impacts, including 2/3 of particulate matter emissions and 70-80 percent of added cancer risk from air pollution.

[Jet fuel might also be covered but probably not initially: 13 percent of fuel mix]

Other fuel characteristics

- TCI states total transportation emissions: 250 million tons = 5 percent of national GHG emissions.
- Transportation emissions in the TCI region were more than three times greater than power plant emissions of RGGI states as of 2015. Transportation's larger carbon footprint significantly magnifies the scale, complexity, and uncertainty of carbon market performance in the region.
- Nine years of RGGI-era data cast doubt on the effectiveness of cap-and-trade for reducing GHG emissions.

Covered Sources

Pre-combustion "upstream" sources are the only viable option for regulating transportation emissions that are ultimately produced by fuel combustion of millions of individual vehicles. The likely target source for regulation is "prime fuel suppliers," meaning "a firm that produces, imports, or transports selected petroleum products across State boundaries and local marketing areas, and sells the product to local distributors, local retailers, or end users."

Prime fuel suppliers are favored as the primary point of regulation because the number of sources is limited—approximately 100 in the TCI region—and these are already federally required to report monthly fuel purchase volumes; these sources are also the most appropriate for including jet fuel in the future.

How It Would Work

1. States set a transportation emissions cap—the amount of allowable carbon emissions from combustion of transportation fuels.
2. Emissions reductions are achieved by reducing the cap over time, but overall impact is highly contingent on stringency of initial cap and rate of acceleration of cap reductions over time.
3. States establish a point of regulation, and regulated entities are subject to the cap.
4. States auction or provide allowances equal to the cap.
5. Regulated entities obtain pollution allowances and remit allowances equal to their emissions at the end of a prescribed compliance period. Allowances are purchased or received from the state or from other regulated entities, and covered entities can also "bank" allowances based on future market projections or other strategic considerations.

6. The state can use allowance “reserves” to, theoretically, adjust the pricing of emissions in accordance with reduction targets.
7. States control investment of revenue but could cooperatively invest in regional strategies for low-carbon transportation.

II. Upstream Regulation vs. Downstream Impacts: Cap-and-Trade Means Trickle Down Reductions for the Most Pollution-Impacted Communities

While there is very little data at this time to directly assess the equity impacts of transportation cap-and-trade in practice, it is valid to point to clear policy limitations that could negatively affect many communities.

The critical problem is the *gap between upstream regulation of fuels and downstream emissions impacts as fuels are combusted.*

Upstream regulation “caps” the embedded carbon content of transportation fuels that enter a state, which are then distributed for retail purchase and variously combusted throughout a state. Such a cap does not regulate actual transportation emissions in communities. What this ultimately means:

- Stark existing inequalities of exposure to transportation emissions, by overall volume, by relative health impacts of different types of fuels, and by clustering effects in combination with other pollution sources, are likely to persist under any technically and politically feasible cap-and-trade policy for transportation fuels.
- Thus, the communities already heavily impacted by transportation pollution will continue to be the most impacted, even as overall transportation emissions may decline if caps and allowance prices are sufficiently stringent to incentivize of market shifts to clean transportation (a big “if”).
- Further, existing inequalities of exposure could grow worse as the market flexibility at the heart of cap-and-trade disfavors transportation emissions reductions where reductions are comparatively more costly or higher costs are easiest to pass on to consumers.
- For example, diesel fuel supplies for freight trucking—the most harmful source of pollution in low-income urban communities—may be less responsive to cap-and-trade incentives because the political price of passing on diesel fuel/freight trucking allowance costs to consumers is lower than is likely to be the case for rising gas prices at the pump. Similarly, the financial costs of actually reducing diesel fuel emissions and impacts in communities by conversion to cleaner fuels and electric trucks are likely to be challenging well into the future due to the slower curve of technological development and fleet turnover for electric freight trucking.
- Due to the scale and complexity of transportation, transportation emissions reductions from cap-and-trade are potentially subject to significant counter-effects. For example, increases in vehicle miles traveled (VMT) due to poor transportation planning or a hurricane that reduces commuter rail service could offset emissions reductions driven by other policies.

III. Comparable California Model Provides Evidence of Major Equity Problems

Local Emissions are Increasing and Inequitably Distributed

Research shows that, after implementation of cap-and trade, California’s in-state emissions actually increased between 2011-2015. More than half of regulated facilities reported higher in-state emissions

under cap-and-trade, and the communities subjected to increasing emissions were home to higher proportions of people of color and low-income households compared to communities that enjoyed emissions reductions.¹

Transportation fuels were added under California's carbon cap starting in 2015. Covered sources are "upstream" prime fuel suppliers, as is likely to be the case in the TCI framework. Compliance is limited to prime suppliers responsible for at least 25,000 metric tons of emissions annually.

One year of data on transportation sector emissions under cap-and-trade in California also showed increasing emissions (2015-2016).² The increase in transportation emissions is consistent with the 2.6% growth in Vehicle Miles Traveled (VMT) in California from 2015 to 2016,³ which clearly more than offset any reductions in emissions attributable to fuel efficiency regulations, the cap-and-trade program, or any other policy driver of reduced emissions.

The transportation data from California and other places should be telling for transportation cap-and-trade advocates because they point to underlying trends in our economy that cannot be addressed, let alone rectified, by carbon trading. If increasing VMT threatens to offset cap-and-trade benefits, as is likely the case in California, a much more effective climate policy would focus on housing justice in proximity to job centers—by controlling rents, eliminating single family zoning laws, investing in mass transit, and other policies that prevent gentrification, displacement, and resulting carbon-intensive and vehicle-dependent sprawl.⁴

Carbon Offsets?

To date, TCI does not seem to be giving much consideration to including carbon offsets, where polluters can pay for their continuing pollution by financing projects that sequester or otherwise prevent equivalent emissions elsewhere (and often out-of-state). RGGI has a very small and restrictive offset program which is almost completely un-utilized.

California's cap-and-trade system gives much greater latitude for carbon offsets (on top of auctioned allowances), and this policy clearly contributes to California's problem of a cap-and-trade system that is increasing local emissions even as overall compliance appears to be reducing emissions.⁵

¹ Lara Cushing, et. al., "Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap-and-trade program (2011–2015)," PLOS, July 2018, available at <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002604>.

² California Air Resources Board, "California Greenhouse Gas Emissions for 2000 to 2016: Trends of Emissions and Other Indicators," 7/11/2018, available at: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf.

³ California Department of Transportation (CALTRANS), Historical Monthly Vehicle Miles of Travel 1972 -2016, available at: <https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/f0017712-vmthist1.pdf>

⁴ Scott Wiener and Daniel Kammen, "Why Housing Policy is Climate Policy," *The New York Times*, March 25, 2019, <https://www.nytimes.com/2019/03/25/opinion/california-home-prices-climate.html>.

⁵ Barbara Haya, "The Size of California's Carbon Offset Program," California Institute for Energy and Environment, June 2018, available at <http://bhaya.berkeley.edu/docs/FACTSHEET-the-size-of-CAs-offset-program-Haya.pdf>.