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New California Environmental Laws Target Greenhouse Gas Emissions and Air Pollution: Cap-and-Trade Program Expanded with Bipartisan Support

*By Allan T. Marks**

This article explains two new California environmental laws designed to reduce greenhouse gas emissions and air pollution, which, if successful, may serve as a model for other states in the United States and around the world.

Two significant environmental bills became law in California at the end of July 2017, after intensive negotiations in Sacramento and passionate prodding from California Governor Edmund G. “Jerry” Brown, Jr. First, on July 25, 2017, Governor Brown signed into law an extension to California’s innovative cap-and-trade program to reduce greenhouse gas (“GHG”) emissions. The law, AB 398,¹ was approved by both houses of the California Legislature with unprecedented bipartisan support, including the Democratic majority plus eight Republican legislators. Second, a companion measure, AB 617,² was passed the same day, on July 17, 2017,³ and signed by the Governor on July 26, 2017. That law authorizes stronger measures to control other types of air pollution. The stronger controls by local air quality management districts contained in AB 617 were sought by environmental justice groups focused on air quality near industrial sites and in disadvantaged communities.

Taken together, these two new laws teach three related lessons:

- Policy can be advanced best when opposing parties collaborate.
- Real progress can be made on environmental regulation in ways that also preserve economic growth and industry.
- Both local air pollution and global climate change can be addressed simultaneously through differing but interconnected regulatory approaches.

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¹ The new law has been chaptered by the Secretary of State as Chapter 135, Statutes of 2017.

² The new law has been chaptered by the Secretary of State as Chapter 136, Statutes of 2017.

³ Assembly Bill 398 passed with 55 to 21 votes in the Assembly and 28 to 12 in the Senate. Assembly Bill 617 passed with 50 to 24 votes in the Assembly and 27 to 13 in the Senate.

CAP-AND-TRADE IN CALIFORNIA

At a time when the US federal government is stepping back from efforts to address global climate change, California has taken the lead with a cap-and-trade framework that serves as a model for other states and countries. California's five year old cap-and-trade program, the first of its kind in the United States, created powerful incentives for California industry and utilities to reduce GHG emissions and to move toward cleaner forms of energy. Basically, cap-and-trade is a system of market-based declining annual aggregate emissions limits for sources or categories of sources that emit GHGs. The cap-and-trade program also encourages electric utilities and power generators to find the most efficient and cleanest way to provide electricity to retail customers.

A decade ago, California's Global Warming Act of 2006 (AB 32) committed the state to reduce GHG emissions to 1990 levels by 2020 by authorizing the California Air Resources Board (known as CARB or ARB) to adopt market-based mechanisms that would cover the largest carbon emitters. To that end, California implemented a multi-sector cap-and-trade program to assist reducing GHG emissions from regulated entities by more than 16 percent.⁴ There was little in the way of specific statutory guidance for the cap-and-trade program under AB 32. Under the existing program, CARB adopted cap-and-trade regulations in 2013. The GHG reduction targets were toughened further by statute in 2016. The program covers large industrial facilities and electricity generators emitting more than 25,000 metric tons of CO₂ equivalent per year, as well as distributors of fuels, including gasoline, diesel, and natural gas. The covered facilities together account for approximately 85 percent of California's annual GHG emissions.

The existing program was authorized only until 2020 and, under AB 398, now has been extended through 2030. Legal challenges to the cap-and-trade program were rebuffed when the California Supreme Court recently denied an appeal to review the Third District Court of Appeal's approval of the existing cap-and-trade rules, determining that they did not amount to an unconstitutional tax.⁵ Both the court's ruling and the two-thirds legislative majority for the new extension insulate cap-and-trade from further legal challenges on that basis.⁶ The new law also precludes air districts from imposing additional

⁴ <https://www.c2es.org/us-states-regions/key-legislation/california-cap-trade> (viewed July 30, 2017).

⁵ *California Chamber Of Commerce v. State Air Resources Board*, Case Number S241948, Cal. Sup. Ct. review denied June 28, 2017.

⁶ The state Legislative Analyst noted that "a two-thirds vote would provide legal certainty

regulatory limits on CO₂ emissions from facilities subject to the cap-and-trade rules, a provision that was controversial among environmentalists. The new law thus provides greater regulatory certainty for future investment in carbon-intensive industry in the state.

The premise of the cap-and-trade program is to impose a tangible cost on GHG emissions, rather than taxing them or simply restricting them outright. Thus, emitters have an economic incentive, with costs determined by a market mechanism, to reduce emissions. The program places a cap on the number of allowances made available. The cap gradually decreases by about three percent each year, thus reducing total GHG emissions and arriving at the target limit by 2020. The program incentivizes emitters to either reduce their emissions or to purchase allowances from other companies on the market, who in turn should reduce their own emissions. The existing program requires companies to hold enough GHG emission allowances to cover their emissions, which must be submitted at the end of each compliance period. Allowances are made available on the open market through quarterly auctions held by the State of California, resulting in revenue to the state.⁷ Once issued, allowances may be traded. In addition, California provides some free allowances, so as not to overly curtail industrial activity.

Therefore, to implement the regulation, CARB issues GHG emission allowances equal to the cap through a combination of free allocation to industrial facilities, consignment to electric and gas utilities on behalf of ratepayers, and quarterly auctions of allowances. CARB sets a price floor for auctioned allowances (currently \$13.57), and maintains allowances in a price containment reserve, to be sold to mitigate price spikes if allowances prices reach a specified level (currently \$50.69). The allowance price floor and ceiling escalate at five percent per year plus inflation.⁸

regarding ARB's authority to auction allowances—a method for distributing allowances that is generally recommended by economists. A two-thirds vote would also allow the Legislature to remove the current requirement that cap-and-trade auction revenues can only be used on activities that reduce GHG emissions." See California State Senate Rules Committee, Senate Floor Analyses for AB 398, at <https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml> (July 2017).

⁷ According to California's July 2017 Senate Floor Analyses (*ibid.*), "Since November 2012, ARB has conducted eight California-only and nine joint California-Québec cap-and-trade auctions. To date, \$3.4 billion has been appropriated by the Legislature to 12 state agencies that have distributed \$1.2 billion to [GHG reduction] projects that have been completed or are under way."

⁸ See California State Assembly Floor Analysis of AB 398, at <https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml> (July 2017).

The cap-and-trade program allows emitters to meet up to eight percent of their total emissions compliance obligation in the form of offsets. Offsets, unlike allowances, do not result in revenue to the state. Rather, an offset is a credit for a real, verified, permanent, and enforceable GHG emission reduction project from a source outside a capped sector. Companies may offset some of their emissions by making other qualifying green investments, though use of offsets is more stringently limited under the new law. In this way, the cap-and-trade program balances the public policy of reducing GHG emissions with the need to keep California industry competitive, with net benefits for both the state economy and the global environment.

WHAT DO THE NEW LAWS DO?

AB 398 extends the life of California's cap-and-trade program until 2030, requiring companies to buy and sell greenhouse gas credits in order to release GHG emissions. It is a key piece of California's overall 2030 goal of reducing GHG emissions by 40 percent from the state's 1990 levels. The new law extending the program changes how refineries, utilities and other stationary carbon emitters can acquire and use pollution allowances and offsets. It specifically requires CARB to include specified price ceilings, price containment points, offset credit compliance limits, and industry assistance factors for allowance allocation as part of its new regulations.

The extension differs from the original California cap-and-trade program in that it mandates CARB to establish a firm ceiling for the price of credits granted through the quarterly auction, as well as a floor on the price of credits. The rules require each covered entity to surrender one allowance for every metric ton of carbon dioxide equivalent (MTCO_{2e}) that it emits at the end of a compliance period (currently three years). Once issued, allowances may be traded among entities. At the end of each compliance period, covered entities are required to surrender enough allowances to match their emissions for the period.

AB 398 also cuts back on the use of offsets, independent projects which are implemented to reduce carbon emissions elsewhere, such as reforestation, that can help reduce the effects of GHG emissions. Under the program to date, about 76 percent of offsets have been invested outside the state.⁹ The new law requires that no more than half of new offsets claimed by any entity may be

⁹ The California State Assembly Floor Analysis of AB 398 (*ibid.*) states, "To date, ARB has adopted protocols for the following six project types: livestock manure management, ozone depleting substances (ODS), urban forests, United States (U.S.) forests, mine methane capture (MMC), and rice cultivation. U.S. forests projects are the largest source of compliance offsets by far, followed by ODS, livestock, and MMC. No compliance offsets have been issued for urban forests or rice cultivation projects. The majority (76%) of compliance offsets used to date have been generated by projects located outside of California. Arkansas accounts for about one-third

sourced from projects that do not provide direct environmental benefits in California. AB 398 also outlines how the legislature should prioritize the revenues generated by the state's sale of emission allowances, including but not limited to pollution reduction in disadvantaged communities, low-carbon transportation, climate adaptation and research.

The state has also enacted a companion measure, AB 617. The cap-and-trade program operates statewide and does not uniquely protect disadvantaged communities located near large industrial facilities and refineries. Those communities may still be disproportionately affected by air pollution, including particulates and smog. The state has taken two complementary steps to address that situation. First, AB 398 contemplates the use of state funds, raised from the sale of credits under the cap-and-trade program, to fund air pollution improvements in affected communities. Second, AB 617 requires industrial facilities to update old equipment with cleaner technologies and increases the maximum penalties for violations of air laws from \$1000 to \$5000 per violation. While AB 398 targets GHG emissions that threaten the global climate, AB 617 targets the effects of air pollution closer to home. AB 617 seeks to improve air quality in California by increasing pollution monitoring and refocusing the state's monitoring plans on high-priority areas that produce the most pollution.

SUPPORT AND CONTROVERSY

The new laws received support from several different trade associations and organizations that have opposed such measures in the past, albeit for different reasons. Enactment of the new laws shows that opposing lobbies and legislators from both political parties can compromise and collaborate to enact comprehensive climate and anti-pollution legislation, mindful of balancing environmental and economic concerns. This model of bipartisan cooperation could be a model for other states, despite the lack of consensus in Washington.

The extension of California's cap-and-trade program was supported by many environmental groups (including the Environmental Defense Fund and the Natural Resources Defense Council) and by business lobbies (including the California Chamber of Commerce, manufacturer and agriculture associations, and oil companies).

Fred Krupp, the President of the Environmental Defense Fund, stated on July 17, 2017:

Today California's elected leaders affirmed the state's place at the

of offsets, from large ODS projects. Another one-third are generated by forest projects in states such as Michigan, New Hampshire, and Ohio. California accounts for 24% of offsets, ranging from forest projects on the North Coast to appliance recycling (ODS) in Compton."

forefront of global efforts to fight climate change and protect public health. This vote ensures that another generation of Californians will enjoy a world-leading cap-and-trade program that places a firm and declining limit on carbon pollution and holds polluters accountable. At the same time, it provides the flexibility and cost-effectiveness necessary to achieve one of the most ambitious climate targets in the world. And it ensures that California's economy will continue to reap the rewards of being on the cutting edge of the clean energy revolution, with all the investment and jobs that brings.¹⁰

As the Natural Resources Defense Council noted in a statement praising the passage of AB 398 and AB 617:

The legislation represents a big step forward to continue California's global climate leadership. The concessions to industry are bitter pills, but on balance the package ensures our emissions limits are enforceable against polluters and secures critical gains to improve air quality for millions of Californians. The world is watching for California to chart a path through the climate denial and obstruction coming from the White House—and California is yet again poised to deliver.¹¹

Likewise, many industry groups supported AB 398 as the preferred way of addressing climate concerns. Some businesses feared that, absent an extension of cap-and-trade, harsher emissions rules could be imposed by CARB and local air districts. They preferred the market-based mechanisms and the greater regulatory certainty that the new law provides. Even the Western States Petroleum Association lobbied hard for the bill and praised its passage, stating on July 19, 2017, “The bipartisan cap-and-trade package passed this week is the best, most balanced way for California to comply with state law requiring reduction of GHG emissions.”¹²

Republican former Governor Arnold Schwarzenegger, who worked hard to enact AB 32 (which he signed into law in 2006 with just one Republican vote in the Legislature) and other measures to address climate change during his two gubernatorial terms from 2003 to 2011, thanked the Republican legislators who joined the Democratic majority in passing the new laws. He said:

This bipartisan vote to extend California's historic cap-and-trade

¹⁰ <https://www.edf.org/media/california-extends-landmark-cap-and-trade-program-accelerates-air-quality-improvement> (viewed July 30, 2017).

¹¹ <https://www.nrdc.org/media/2017/170711-1> (viewed July 30, 2017).

¹² https://www.wspa.org/system/files/uploaded_files/WSPA%20CNT%20Statement%2019%20July%202017_0.pdf (viewed July 30, 2017).

program to protect our environment while preserving our nation-leading economic growth fills me with tremendous pride. Congratulations to Governor Brown and the Legislature on continuing California's nonstop leadership toward a clean, prosperous future . . . I hope Republicans around the country can learn from the example of Assemblyman Mayes and his fellow Republicans that we can fight for free market policies to clean up our environment for our children at the same time we fight for a booming economy.¹³

A point of contention is that the state continues to provide free allowances and offsets, which allow businesses to continue to emit GHG emissions. Thus, some environmental groups, including the Sierra Club and Earth Justice, opposed AB 398. They specifically objected to the new law's limits on the ability of local air districts to regulate the carbon emissions of certain polluters. The continuation of free emissions allowances and the preemption of local GHG emission rules, in their view, gave too much away to large oil companies. Many Democratic lawmakers had fought to maintain local regulatory power over large refineries and other sources of pollution, which are often located in particularly low-income communities, thus undermining the authority of local and state agencies to regulate carbon pollution. This policy allows large polluters with the resources to bypass compliance by purchasing allowances or offsets elsewhere.

With the passage of AB 617, though, as noted by the National Resources Defense Council, while local air districts may not be able to limit directly GHG emissions from a particular refinery, for instance, they can still regulate the facility's emissions of other pollutants. Local air pollution rules will be strengthened under AB 617, though perhaps not to the degree sought by the environmental justice groups who championed earlier versions of the bill. The idea underlying the political compromises in the new law is to keep businesses competitive in California and to avoid a spike in natural gas prices for consumers, while still reducing total GHG emissions by 2030 to 40 percent below 1990 levels.

EFFECT ON INDUSTRY; EXPANDED TAX EXEMPTIONS

The cap-and-trade program is fundamental to reaching the state's climate change goals and supports the state's vision to focus on renewable energy sources by incentivizing GHG emissions reduction projects. As Governor Brown and former Governor Schwarzenegger each have noted, despite fears

¹³ <https://www.facebook.com/arnold/posts/10155427516201760> (viewed July 30, 2017).

that the state would lose jobs and the economy would suffer when cap-and-trade was initiated five years ago, neither threat has materialized and the state's business climate has improved.¹⁴

AB 398 also extended the sales and use tax exemption for manufacturers and research and development companies.¹⁵ AB 398 exempts from those taxes, on and after July 1, 2014, and before July 1, 2030, “qualified tangible personal property purchased for use by a qualified person to be used primarily in the generation or production, or storage and distribution, of electric power,” or purchased for use by a contractor for the qualified person, and raw materials used in “manufacturing, processing, refining, fabricating, or recycling refining products.”¹⁶ The law, on and after January 1, 2018, and until July 1, 2030, also exempts from those taxes special purpose buildings and foundations used for the generation or production or storage and distribution of electric power and expands the definition of qualified person to include, among others, a person primarily engaged in the business of electric power generation.

Opponents of the new law argued that these new tax cuts for power companies would cost the state almost \$90 million a year, and extending the tax breaks for manufacturers could mean a total cost more broadly of a quarter-billion dollars annually through 2030. The states' General Fund should be made whole, however, as the lost tax revenue is to be replaced by transfers to the General Fund from the Greenhouse Gas Reduction Fund to be funded by cap-and-trade.

CALIFORNIA'S COMMITMENT TO ADDRESSING CLIMATE CHANGE

Coupled with the passage of SB 32 in September 2016, which ensured California's dedication to drastic GHG emission cuts to prevent global warming, AB 398 and AB 617 have solidified California's commitment to reduce GHG emissions. Taken with Governor Brown's highly visible interna-

¹⁴ See <http://www.sacbee.com/news/politics-government/capitol-alert/article163537923.html> (viewed July 30, 2017).

¹⁵ The California State Assembly Floor Analysis of AB 398 (ibid.) states, “[AB 398] extends the existing manufacturer's partial sales and use tax exemption from July 1, 2022 to July 1, 2030; broadens the scope of eligible individuals and tangible personal property to include generation or production, or storage and distribution, of electric power; removes the exclusion for an agricultural business activity; and requires the total dollar amount of exemptions, as reported by the Department of Tax and Fee Administration, with the concurrence of the Department of Finance, to be transferred from the Greenhouse Gas Reduction Fund (cap and trade auction revenues) to the General Fund.”

¹⁶ Assembly Bill No. 398 (2017), Chapter 135, Section 16, amending Section 6377.1 of the California Revenue and Taxation Code.

tional initiatives to address climate change, the state's leadership is striking particularly when President Trump has declared that the United States will withdraw from the landmark Paris climate accord.¹⁷

As stated in SB 32, the California Global Warming Solutions Act of 2006 (AB 32) designated the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The state board was required to approve a statewide greenhouse gas emissions limit equivalent to the statewide GHG emissions level in 1990 to be achieved by 2020 and to adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG emissions reductions. Ten years later, SB 32¹⁸ required the state board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030.

While California has been slowly reducing its GHG emissions, at 440 million metric tons in the year 2015, it has a long way to go to reach its 2020 target of 431 million metric tons and 2030 target of 260 million metric tons. The extension of the cap-and-trade program under AB 398 should now make that goal easier to achieve using market-based mechanisms to incentivize GHG reductions by large emitters, rather than relying on across-the-board regulatory emissions limits.

The hope is that these policies will stimulate investment and innovation in carbon emissions reductions, renewable energy, smart grid management, energy efficiency, and battery storage. California's cap-and-trade program solidifies the state's climate leadership and, if successful, may serve as a model for other states in the United States and around the world.

¹⁷ Under Article 28 of the Paris Agreement, a nation may withdraw from the agreement by delivering a formal written notice to the United Nations. No withdrawal notice may be given until at least three years have passed since the agreement entered into force. As the Paris Agreement entered into force on Nov. 4, 2016, the United States may submit a written withdrawal notice no earlier than Nov. 4, 2019. The official withdrawal would then take effect one year later or on a later date specified in the notice. (United Nations / Framework Convention on Climate Change (2015) *Adoption of the Paris Agreement*, 21st Conference of the Parties, Paris: United Nations, available at https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf).

¹⁸ Codified in new Section 38566 of the California Health and Safety Code (in 2016).