

Legal Updates & News

Legal Updates

Tough Choices: California's Cap-and-Trade System Takes Shape

December 2009

by [Michael Steel](#), [William M. Sloan](#), [Rachel Peterson](#)

Taking its place alongside a host of other climate policy and regulatory mechanisms, California's mandated and much-anticipated cap-and-trade system received a fresh round of public scrutiny yesterday. At a workshop on December 14, the California Air Resources Board (ARB) took comments from regulated emitters, industry, environmentalists, and the public on its preliminary draft regulation. (The preliminary draft regulation can be found [here](#).)

Cap-and-trade is a market mechanism with roots in the state's 2006 pathbreaking climate change bill, A.B. 32. (Click [here](#) to read our client alert about A.B. 32.) As drafted, the system would cover about 600 of the state's largest industrial sources and electricity generators. These emitters must contribute to the state's overall goal of reducing its emissions to 1990 levels by 2020 – an approximately 29 percent reduction, reducing total emissions by roughly 174 million metric tons of CO₂-equivalent (MTCO₂e).

The spotlight is on California, because while Congress vacillates, the state's regulatory scheme is being both actively developed and in some provisions already actively enforced. The cap-and-trade system is the centerpiece, and was mandated by A.B. 32 – so barring a legislative push to overturn that law (as occasionally suggested by politicians looking to score points) or preemption by a national scheme, cap-and-trade is coming to California in 2012.

How It Works

Between 2012 and 2020, the state will impose a declining cap on aggregate emissions by the covered industries. The cap is reflected in a total number of "allowances," which represent one metric ton of carbon dioxide (CO₂) or its equivalent in other greenhouse gases (GHGs), and which are apportioned among the covered emitters. At the end of each compliance period, emitters must surrender their allowances to the state, which permanently retires them and issues a new, smaller set for the next compliance period.

Trading allowances is key to industry's ability to operate within an ever-smaller number: heavier emitters

Related Practices:

- › [Cleantech](#)
- › [Environmental Law](#)
- › [Land Use & Natural Resource Law](#)

can purchase allowances from others whose emissions fall below their cap in a given year. Cap-and-trade is widely viewed as a flexible mechanism that encourages technological innovation, eschews command-and-control regulation, and does not impose penalties for emissions that fluctuate from year to year, an aspect especially important in an unsteady economy. Whether it actually works to reduce emissions over time, however, has been the subject of intense discussion. Indeed, cap-and-trade has come under increasing scrutiny as world leaders gather in Copenhagen for climate change talks, and as the U.S. debates a national system. (To read our discussion of lessons from the European Union Emissions Trading System (EU ETS) for California, click [here](#).)

Experts agree that the key to cap-and-trade's success lies in the design decisions made up front – and each choice frequently presents a zero-sum game between stringency and the impact on affected industry, which explains the intense interest in the proposed regulation. Following are the system's components as currently drafted, and the hard choices yet to be made:

Covered Emitters

- *Should everyone be shuffled into the regulatory tent now?*

Without question, the covered emitters for the compliance period starting in 2012 will include electricity generators and importers, and large industrial sources or processes with emissions above 25,000 MTCO_{2e}.^[1] But should more actors be held accountable for the state's emissions from the program's start? ARB sought public comment yesterday on when (2012 or 2015) to include transportation fuels, industrial fuel combustion at facilities with emissions below 25,000 MTCO_{2e}, and all commercial and residential combustion of natural gas and propane. Taken together, all of these emitters account for about 85% of the state's total emissions – leaving out transportation fuels shrinks the coverage to approximately 44%.

At the December 14 workshop, fuel industry representatives naturally argued most strenuously against bringing transportation fuels under the cap from the start of the program. Large utilities countered them, hoping to bring more industries in to share the regulatory burden. Environmentalists urged the same, arguing that starting with more covered industries in 2012 would create a larger market and establish a more appropriate price on carbon, given transportation's large share of the state's total emissions.

While the size of the tent is still being determined, California has chosen a hybrid point of regulation scheme. It targets industrial facility operators and electricity generators, which, as it explains, are most likely to have the authority to innovate to reduce GHG emissions.^[2] Other emissions sources are captured further downstream – but always avoiding the end consumer.

The Release of Allowances

- *A giveaway, an auction, or both?*

This choice may be the most important and controversial design decision ARB faces. Allowances are a limited commodity created entirely by the cap-and-trade system – their economic value will be immediate and measurable. To whom should ARB distribute them, and on what basis? Giving them away at the start of the program, critics say, amounts to an enormous subsidy to the emitters. What's more, releasing the allowances for free deprives the state of a revenue opportunity that could be used to compensate those disproportionately impacted by the imposition of cap-and-trade, pay dividends to the public, or finance investments to achieve the goals of A.B. 32. ^[3]

Those in favor of free allowances say they are a fair, efficient way to compensate the entities affected by the new climate policy and regulation. Allocating allowances for free could also help avoid "emissions leakage," where rising costs imposed by California's climate policy could give rise to increased emissions outside the state, an outcome that does little for either the environment or the state's industry.^[4] Last, some believe that an auction amounts to a tax that is illegal under the California constitution – and cap-and-trade watchers believe that a regulation that requires an auction will be the subject of a lawsuit in short order.

Another pitfall ARB faces is the over- or under-allocation of allowances to industry, which could make it too easy or too difficult to comply. At the workshop, ARB officials stated that they hoped to avoid this problem (overallocation is widely viewed as one reason that the EU ETS has not shown strong environmental benefits), and that the mandatory reporting system already in place (discussed below) should provide sound baseline emissions information. Of course, the corresponding effect on the environment of getting the allowance numbers wrong is the same: if compliance is too easy, industry will take little action; if it is too difficult, actors could prefer the penalties associated with non-compliance.

Not surprisingly, ARB has given this issue a placeholder in the preliminary draft regulation, in anticipation of a final report and recommendation by its specially appointed Economic and Allocation Advisory Committee (EEAC). It does anticipate, however, that at least some proportion of the initial allowances will be auctioned (likely more than 10%), and that, as set out in its Scoping Plan to implement A.B. 32, it will likely transition over time to a 100% auction system.^[5] (The EEAC's draft report on allowance distribution can be read [here](#).)

The Cap

- *When does it become too stringent?*

The preliminary draft regulation proposes only illustrative allowance numbers for the cap, or base allowances budget, as termed by ARB.^[6] However, two key elements of setting the cap are already in place. First, California's mandatory reporting regulation reaped emissions data from emitters that would be covered by the regulation (stationary combustion sources with emissions above 25,000 MTCO₂e per year, and electricity generators or cogenerators with capacity above 1 megawatt and emissions above 2,500 MTCO₂e per year). (The reported emissions data can be viewed [here](#).) Second, ARB has developed spreadsheets using that data alongside other historical and predictive information to make its first pass at the base allowance budget. (The initial cap calculations can be viewed [here](#).)

The Trouble With Offsets

- *Are they worth the regulatory effort?*

The preliminary draft regulation reflects the diminished currency of offsets. Offsets are credits provided by projects that act as carbon sinks, avoid emissions, or reduce emissions. Under the EU ETS, European countries are permitted to purchase offsets based on projects in developing countries as credits toward meeting their emissions cap. The intent was to create a revenue stream for beneficial projects in the developing world and an additional mechanism for European countries to meet the declining targets – but the system has proven difficult to implement with accountability, and has experienced unintended emissions-*inducing* consequences.

California clearly hopes to avoid the same fate, but to do so requires a complex, rigorous system of quantification and verification. As proposed, the preliminary draft regulation crafts such a scheme to ensure the integrity of offsets, and would permit an emitter to purchase offsets of up to 4% of its total to be surrendered in each compliance period. ARB has not yet determined a basis for limiting the geographic scope of the offset projects.^[7]

The program as currently designed also permits links to external GHG emissions trading systems, such as the EU ETS or Regional Greenhouse Gas Initiative in the Northeast, or the national system, if it emerges.^[8] Further, it implements enforcement and penalty mechanisms for reporting violations and non-compliance, and enforcement and penalty mechanisms against offset project developers to incentivize compliance.^[9]

What Happens Next?

ARB will accept public comment on the preliminary draft regulation until January 11, 2010. The EAAC's final recommendation for allocating allowances is also due in January, after which ARB will move forward with the rulemaking process. A draft regulation is due to be released in summer 2010, and is scheduled for final approval by the ARB Board in October 2010.

Will It Work?

Cap-and-trade's actual effectiveness at reducing emissions is much debated – particularly in comparison to a carbon tax. The United States' sole other national cap-and-trade experience, aimed at reducing sulfur dioxide (SO₂) and nitrous oxide (NO_x) emissions by electric power plants, is hailed as an unqualified success. Though instructive, the SO₂ and NO_x program falls short of a reproducible model for GHGs. In the first place, that program required power plants to implement a mature technology that needed little modification of existing equipment. In contrast, global warming is being caused by the emission of several different GHGs, whose emission takes place across the economy. What's more, the effects of climate change are global and occur without a direct line of causation to any one state or country's emissions. Instead of one mature, readily deployable technology, every sector's technology to reduce GHG emissions is at best emergent. Last, Americans are divided about climate change: polls show a streak of skepticism, perhaps driven by (disputed) assessments of climate change policy's negative impact on the economy, but also a can-do attitude toward shrinking personal carbon footprints. This mix underlines the challenge in designing a cap-and-trade system that successfully balances stringency and flexibility.

Yet where California will find itself in 2020 is coming down to the decisions it is making today. As ARB goes about designing the cap-and-trade system, it is determining which economic actors will shoulder the greatest emissions reduction burden. If, as California hopes, those actors face the right mix of incentives, then they, in turn, could spur the technological innovation and behavioral changes that are crucial to solving some of the state's climate-driven problems.

Footnotes

[1] See Preliminary Draft 5 CCR § 98520 and discussion.

[2] See Preliminary Draft Regulation for a California Cap-and-Trade Program (Nov. 24, 2009), pp. 26-27.

[3] See "Allocating Emissions Allowances Under California's Cap-and-Trade Program" (Dec. 9, 2009), pp. 8-10.

[4] *Ibid.* at pp. 6-8.

[5] See staff comment to Preliminary Draft Regulation, Subarticle 8, pp. 45-48.

[6] See Preliminary Draft 5 CCR § 95890, Table 1.

[7] See Preliminary Draft 5 CCR § 96240 et seq.

[8] Preliminary Draft 5 CCR § 96160.

[9] Preliminary Draft 5 CCR § 96500-96504; staff comment to Subarticle 13 (Offset Credits), at p. 76.