



# Carbon Market California

A COMPREHENSIVE ANALYSIS OF  
THE GOLDEN STATE'S CAP-AND-TRADE PROGRAM

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YEAR TWO: 2014

# Executive summary

In 2006, the state of California made a bold commitment to tackle climate change with the signing of the Global Warming Solutions Act, commonly referred to as AB 32. AB 32's main purpose is to decrease the emission of dangerous, heat-trapping greenhouse gases which contribute to climate change. The law centers on an overarching, ambitious mandate: reducing the state's greenhouse gas pollution back to 1990 levels by the year 2020.

To achieve this goal, lawmakers and regulators have pursued a comprehensive suite of policies, implemented as part of AB 32 and subsequent measures. A cap-and-trade program, which now applies to almost 85% of California's greenhouse gas emissions, was launched in 2013 and is widely considered the centerpiece of the program. While cap and trade as a concept predates the signing of AB 32, California's version of it is without precedent, as it covers the vast majority of the state's economic sectors. The other major cap-and-trade system in North America, the Regional Greenhouse Gas Initiative (RGGI), comprises nine Northeastern states, but only applies to the electricity sector.

Because of its sweeping scope, many observers called California's carbon market a "grand experiment." Almost two years into the experiment, all signs are pointing to the overarching conclusion that the experiment—an economy-wide cap-and-trade program in the world's eighth largest economy—is in fact working. California is proving that it is possible to limit, price, and reduce the state's greenhouse gas pollution while spurring continued growth of the state's economy. Even more encouragingly, some of the fastest economic growth is taking place within the "green" portion of the economy—defined by jobs and revenues generated from the accelerated adoption of cleaner energy solutions.

California's experiences must be well-documented, and will be increasingly scrutinized, as more and more cities, states, and countries consider the potential of cap and trade to address carbon pollution. The passage of future climate change and clean energy policies in other places will rely on lessons learned from California and other jurisdictions that have already taken action. It will be essential to analyze emissions reductions side-by-side with a robust economic analysis, given that much of the opposition to laws that curb emissions comes from companies

*Photo below:* United Nations Secretary General Ban Ki Moon (center) with Sam Kahamba Kutesa, President of the sixty-ninth session of the General Assembly (left), and Robert Orr, Assistant Secretary-General for Strategic Planning.



UN Photo/Cia Pak



claiming that fossil fuels are vital to economic health and growth. Indeed, a staggering portion of the world's economy *does* still depend on the use of fossil fuels, and breaking this dependence will require a clear understanding of benefits beyond emissions reductions, such as the health and economic prosperity of individuals and states.

This report contains a thorough analysis of several key indicators of whether California's cap-and-trade program is working, including the health of California's economy, the state's emissions level, how the carbon market is functioning under the regulatory framework, and the level of political support the program enjoys. It is the second in a series; the first report, released in January 2013, analyzed the first year of the cap-and-trade program, and provided an early overview of how implementation was going.

This report has the advantage of a second year's worth of data and analysis on the carbon market's operations and on the current state of California's economy. In addition, the end of 2014 officially marked the conclusion of "Compliance Period One," the first phase of the market program established by the California Air Resources Board (CARB). While important milestones still lie ahead for California's cap-and-trade program—most notably, the inclusion of transportation fuels under the cap starting in January 2015—this executive summary highlights several key conclusions that will be discussed in more depth in the full report.

### **1. The latest data shows that California's economy is thriving and emissions regulated by cap and trade have decreased since the program launched.**

California's gross domestic product (GDP) increased by over 2% in 2013. Overall job growth outpaced the national average, and this trend is expected to continue despite persistent claims that climate policies and carbon prices would interfere. Meanwhile, according to emissions data released by CARB in November 2014, "capped emissions" decreased by almost 4% during the first year of the program. "Capped emissions" are those produced by facilities covered under the cap since the program's launch.

### **2. California's carbon market has remained stable and strong since its inception, as demonstrated by the level of activity and participation in the quarterly auctions and secondary market.**

Cap and trade places a total cap on emissions and then issues a limited number of allowances, or permits, for those emissions. The total number of permits in the market corresponds to the overall statewide cap, which declines every year to help California reach 1990 emissions levels by 2020. In California's program, a percentage of allowances are auctioned off through quarterly auctions. While the idea of issuing permits for continued pollution seems counterintuitive on its face, carbon allowances under a cap-and-trade program actually provide a mechanism to set a carbon limit for an entire economic system and create incentives for companies to decrease emissions over time. In order for the mechanism to work, however, regulations for the market need to be strict and enforced, and entities need to participate. The results of the nine quarterly auctions through November 2014 demonstrate that companies are taking this program seriously and factoring a carbon price into their business strategies. Between the state-run auctions, daily trade activity on the secondary market has been characterized by stable allowance prices and increased trading volumes. These metrics point to a healthy, well-regulated, and active carbon market, which is a positive sign that California's cap-and-trade program is going well, and that the state is on track to meet the 2020 emissions target set by AB 32.

### **3. Regulated companies are actively engaging in the program and complying with the rules that require them to limit and decrease their emissions.**

Companies regulated by the cap-and-trade program are required to purchase enough allowances to cover their greenhouse gas emissions, and must relinquish these allowances at a required

time or face severe penalties. All of the entities regulated under California's cap-and-trade program during the first compliance period (2013–2014) retired the correct number of allowances by the first deadline in November 2014, which demonstrates that companies can comply with the program while incorporating cap-and-trade mechanisms into regular business practices.

#### **4. California's government leaders in the executive and legislative branches have maintained a steadfast commitment to the cap-and-trade program.**

Despite well-financed efforts from some industry groups, which have ramped-up in opposition to transportation fuels coming under the cap in January 2015, California's government leaders have remained strong supporters of the economy-wide cap-and-trade program. The 2014 California legislative session closed without the passage of any bills to significantly weaken the program, and both Governor Brown and state legislative leaders continued to show strong leadership on climate and clean energy policies, including AB 32. Against the backdrop of strong political support, state regulators took steps to strengthen the program, including adopting additional offsets protocols to expand the pool of available emissions reduction opportunities.

#### **5. California's cap-and-trade program will result in investments in innovative projects that benefit communities throughout the state.**

While the primary purpose of AB 32 is to achieve the 2020 target for emissions reductions, the state's cap-and-trade program is designed to yield other benefits, too. Beginning in 2015, proceeds from the quarterly auctions of carbon allowances will be available for re-investment. This money, a total of \$902 million budgeted through mid-2015, has gone into California's Greenhouse Gas Reduction Fund (GGRF). Under a set of rules and criteria, the GGRF will invest in projects that achieve even greater emissions reductions, while creating jobs, improving communities, and slashing other harmful pollutants. The Fund will also direct a minimum of 25% of proceeds to benefit disadvantaged communities disproportionately affected by climate change and pollution.

#### **6. Global momentum for climate action is growing and California continues to be both a model and willing partner for other states and nations eager to move on climate policies.**

California has formed working, two-way partnerships with ten other jurisdictions around the globe, including high-profile agreements with Mexico and China, in which the signing parties commit to share information and lessons learned about climate policies, with a special focus on emissions trading programs. These partnerships are a vehicle for California to share its climate policy knowledge while forming vital intellectual and commercial links with leaders around the world.

In addition to expanding on these conclusions with relevant data and analysis, this report illustrates past milestones, charts the year ahead, and contains interviews with market experts who possess unique vantage points and perspectives on how California's "grand experiment" is working.

While the implementation of California's cap-and-trade program is far from finished, this report shows that all indicators for success are pointing in the right direction. Steady progress towards ambitious climate goals is exactly what's needed, as the United States and other countries begin to take long-overdue steps to combat the worst effects of global warming and stimulate low-carbon economic growth around the world.

*To read the full report online, to read the first report of the series, or for more background information on California's cap-and-trade program, please visit EDF's website at [edf.org](http://edf.org).*





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