California Cap-and-Trade Program
Frequently Asked Questions

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California is developing a cap-and-trade program to cut greenhouse gas (GHG) pollution. It is expected to start in 2013. This document answers basic questions about the program. For more information, please contact the authors or visit the California Air Resources Board (CARB) website.[i]

Program Rationale

Q. Why is California developing a cap-and-trade program?

A. The state legislature passed the Global Warming Solutions Act (AB 32) in 2006 requiring CARB to undertake a statewide effort to reduce global warming pollution. After extensive stakeholder input, research and analysis, CARB decided to implement a cap-and-trade program as one of 70 separate measures to cut emissions. Cap-and-trade has been used many times before to successfully reduce pollution, and will complement other regulations like building, vehicle and appliance energy efficiency standards. Since cap-and-trade places an absolute limit - a cap - on the amount of pollution that can be released and creates a price for carbon emissions (through trading), the program as a whole creates a strong economic incentive to cut pollution quickly and at lowest cost.

Q: Why is California regulating greenhouse gases instead of Congress or the U.S. EPA?

A: Climate change is a serious threat to our public health and economic prosperity – worsening air quality, increasing forest fires, and causing sea levels to rise. Scientists across the globe agree that action to reduce pollution must be taken immediately to prevent the worst impacts. Although the Environmental Protection Agency (EPA) has authority to regulate GHGs under the Clean Air Act, federal government action is several steps behind and members of Congress continue to try and limit EPA's authority. In light of the fact that federal action may still occur, California is carefully developing its program so that it works within any future federal program and can stand alone if federal action isn't taken.

Q. Are California's actions going to make a difference?

A. As the world's 8th largest economy and 12th largest emitter of climate pollution, California's leadership is necessary but not sufficient to stop climate change. For this reason, California is developing a cap-and-trade program that can link to other markets in the United States, Canada and other countries around the world. By working with other states and nations, California's cap-and-trade market can inspire investments that reduce pollution well beyond our borders, multiplying the overall economic and environmental benefits achieved.

Impacts on California's Economy and Jobs

Q: How will the program impact California's overall economy?

A: Several studies predict a small but likely positive overall impact on the economy and jobs.[ii] Shifting to home-grown clean energy sources and investing in energy efficiency creates jobs in California and reduces our reliance on imported energy. This will keep money and jobs in the state. California's economy will also become less vulnerable to global fuel price fluctuations because cutting GHGs to meet the pollution limit will reduce fossil fuel imports by 75 million barrels per year.[iii] By getting more of our energy from sources in California and wasting less of it, California's economy will become stronger from within while positioning for long-term prosperity.

Q: How will the program impact California's job market?

A: Anticipation of California's cap-and-trade program has helped attract $15 billion in clean tech investments since the start of 2007. Every $100 million of capital invested creates 2,700 direct jobs at venture-backed companies and many more indirect jobs.[iv] Since 2006, jobs in the green economy have grown 10 times faster than total jobs.[v] The growth in green jobs is expected to accelerate once the program begins because it will encourage even more innovation in clean energy and energy efficiency products and services[vi] and it will create new growth opportunities for companies that market them.

Q: Is this really the right time to implement a cap-and-trade program?

A: Implementing this program will improve California's ability to compete in the global clean energy race, a market for goods and services that has already reached 243 billion. [vii] Although investments in global clean energy increased 30% in 2010, the U.S. fell from first to third place behind China and Germany in the same time period. [viii] California needs to pick up the pace to remain competitive with other countries, and the cap-and-trade program will spur innovative solutions that can be marketed and exported around the world.

Furthermore, Californians strongly support AB 32, of which the cap-and-trade program is a critical element. Polls have shown repeatedly that residents believe strongly that aggressive pursuit of cleaner energy and environmental protection is a 'win-win' that will create jobs and protect our natural resources.[ix] Last November, Californians voted overwhelmingly to keep AB 32 in place by defeating a ballot initiative that would have suspended it. The "pro-AB 32" position on the measure received more votes than any other measure on the November ballot.

Impacts on Businesses

Q: What is the program's likely impact on the businesses that are covered under it and how will it affect their ability to compete?

A: The program was designed to help businesses transition smoothly to a low-carbon economy over the next decade and reward those that reduce emissions fastest. Since industrial polluters will not have to pay for most of their emissions permits (allowances) at the program start, the 360 regulated companies will still be competing on an even playing field against those in states and nations that don't have a price on pollution. Additional features will help keep costs down and maintain competitiveness. One such feature is the ability to use offsets (state-certified pollution reductions from economic sectors--such as agriculture and forestry--that are not directly covered by the program). Another program feature to contain costs is an allowance reserve (a "rainy-day" pool of allowances) that becomes available if prices go up yet does not compromise the environmental integrity of the program.

Q: Why is the program using a free allowance structure instead of selling them through an auction?

A: Giving away free allowances at the start of the program protects businesses from incurring significant compliance costs. Some businesses use large amounts of energy or face stiff competition from producers outside the state and free allowances affords them time to invest in efficiency improvements. With a free allowance structure at the beginning, regulators are able to soften the impact to businesses of their compliance obligations while protecting consumers from increased costs.

Q: Why would companies stay in the California when they can relocate to avoid regulations?

A: Research shows that businesses are not leaving California because of regulatory requirements; in fact, business relocation accounts for a smaller share of job losses and gains in California than in most other states.[x] That said, California is making a gradual transition to a low-carbon economy where new ideas can prosper and businesses can flourish. During this transition, firms will have many good reasons to stay, such as an abundance of talented employees; access to capital; exceptional educational institutions; excellent weather; existing infrastructure; and consumer and business demand in the world's eighth largest economy.

Q: What is the program's likely impact on small businesses?

A: Small businesses are not regulated by the program and are not likely to experience significant operating cost increases.[xi] Sole proprietorships spend on average just 3.3 percent of their sales dollars on electricity, and businesses with more than 500 employees spend just 0.3 percent. Additionally, businesses are likely to reduce costs by having access to more efficient vehicles, buildings and other innovations that cut energy use.

Impacts on Households and Consumers

Q: What is the program's likely impact on consumers?

A: The program is expected to have a minimal impact on consumers. While limiting pollution may cause prices to rise for energy sources that create emissions, monthly energy bills should decline because less energy will be used per person. With more efficient buildings, appliances and cars, and less polluting transportation choices and fuels, implementing AB 32 will mean an increase in personal income of about 30 dollars per person in the year 2020.[xii] This estimate is in line with California's long history of successful energy efficiency programs which show that reducing energy use saves people money. For example, building efficiency standards have saved Californians $56 billion over the last 35 years.[xiii]

Q: What is the program's likely impact on gas prices?

A: California plans to add pollution from transportation fuels to the program in 2015. Making fuel producers pay for pollution will increase prices at the pumps slightly, but the increases will be less than the rise in gas prices that are seen every year during the summer travel season and well below the amount paid during oil price shock events. Natural disasters, political unrest or other discrete events, such as oil price manipulation have caused six severe crude oil price shocks since 1973. With a price on carbon, fuel providers and car makers will have incentives to produce cleaner and more efficient fuels and vehicles, limiting our need for crude oil in the long term and creating more options for consumers to choose from.

Q: Why is this program better than a carbon tax?

A: Cap-and-trade limits total pollution and gives businesses the flexibility to determine how best to invest in reductions. Energy taxes do not put a limit on pollution and can't guarantee results. Additionally, since carbon taxes are politically unfeasible to enact domestically, and impossible to set uniformly from country to country, cap-and-trade is unique in its ability to achieve reductions at the lowest overall cost while minimizing adverse consumer impacts.

Q: How will money raised in the program be used?

A: By law, money raised in the cap-and-trade program will be invested in ways that further the program goals, funding solutions that allow us to reduce pollution, increase clean energy generation, keep energy prices down, or prepare for the impacts of global warming. Examples of investments include energy bill rebates, home weatherization programs for disadvantaged communities and large-scale clean energy projects. By investing this money in California, the program can create local efficiency-related jobs, reduce expenditures on imported fossil fuels and boost consumer spending on other goods and services.

Overall environmental impact

Q.: How will cap-and-trade benefit California's air quality?

A. As businesses, governments and citizens reduce global warming pollution, they will simultaneously reduce other pollutants. Burning less fuel avoids carbon-based pollution that heats the atmosphere, as well as toxic pollution that causes cancer and "criteria" pollutants that contribute to city smog and regional haze. These benefits are likely to be greatest where there is most severe and pressing need. For example, the U.S. acid rain cap-and-trade program inspired the most significant improvements in areas with the worst air quality because the same areas contain the most emitting facilities.

Program enforcement and integrity

Q: How will the program ensure reductions are actually happening?

A: California has a mandatory greenhouse gas emissions reporting rule that requires regulated businesses use consistent methods to annually report emissions. At the end of each three-year compliance period, all polluters will have to hold allowances equal to their emissions. Rigorous regulatory enforcement will involve matching polluters' allowances with reported emissions. Stiff penalties will be levied against companies that don't have allowances equal to their emissions or that try to cheat the program.

Q: How will the program maintain transparency? Who will police it and investigate and correct identified problems?

A: Emissions reports and results from allowance auctioning and trading will be publicly available. CARB will oversee the program with assistance from sister agencies like the California Energy Commission and local air districts. These agencies have several decades of experience successfully enforcing efficiency standards and air quality regulations. State and local agencies will have the authority to investigate and exact penalties for non-compliance.

Q: How does the program ensure offsets have real environmental and economic benefits?

A: Offsets encourage innovation and can stimulate job and economic growth in 'non-capped' sectors like agriculture and forestry. Only verified high-quality offsets (credited under pre-approved offset protocols) can be used in the program, meaning polluters' flexibility to invest in low-cost compliance options will be maintained without compromising environmental integrity. Further, since the program as a whole requires at least 50 % of reductions come from regulated businesses, high-quality offsets can only be used to meet 8 % of compliance obligations.

Q: How will California avoid problems encountered in other cap-and-trade programs?

A: California already has a well-developed emissions reporting program and strong enforcement regime. Therefore, the California program will be based on up-to-date actual reported emissions, not dubious projections. Also, California is developing a process for certifying and tracking offsets, which will ensure every claim of emissions reductions is verified, accurate and accounted for. In these ways, California is expected to avoid initial challenges faced by programs in Europe and the northeastern U.S.

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Q: Is this market vulnerable to the type of manipulation that lead to the state's 2003 energy crisis?

A: Electricity is a very different commodity than greenhouse gas emissions allowances. With three-year compliance periods and ample regulatory oversight, the cap-and-trade program is not subject to the same minute-by-minute trading and system balancing that is required of electricity.

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[i] CARB, 2011, *available at:* www.arb.ca.gov/cc/capandtrade/capandtrade.htm
[ii] Center for Resource Solutions, Climate Policy and Economic Growth in California, 2010, *available at:* www.prnewswire.com/news-releases/controversy-over-economic-impacts-of-californias-climate-law-a-comparative-analysis-of-projections-78446102.html
[iii] EDF, Shockproofing Society, 2010, *available at:* http://www.edf.org/documents/11338_Oil_Shock_Report_Final.pdf
[iv] Environmental Entrepreneurs & Cleantech Venture Network, Creating Cleantech Clusters, 2006 Update. *available at:* www.e2.org/ext/doc/2006%20National%20Cleantech%20FORMATTED%20FINAL.pdf
[v] Next 10, Many Shades of Green, 2010, *available at:* www.next10.org/next10/publications/green_jobs.html
[vi] Employment Development Department, California's Green Economy, 2010, *available at:* www.labormarketinfo.edd.ca.gov/
[vii] Pew Charitable Trust, Investing in Clean Power: Who's Winning the Clean Energy Race? 2011, *available at:* www.pewtrusts.org/news_room_detail.aspx?id=329368
[viii] See note vii.
[ix] PPIC, Californians and the Environment, 2010, *available at:* www.ppic.org/main/pressrelease.asp?p=1037
[x] PPIC, Business Relocation and Homegrown Jobs 1992-2006, 2010 *available at:* www.ppic.org/main/publication.asp?i=956
[xi] CARB, Updated Economic Impact Analysis of California's Climate Change Scoping Plan, 2010, *available at:* www.arb.ca.gov/cc/scopingplan/economics-sp/updated-analysis/updated_sp_analysis.pdf, See also Union of Concerned Scientists, The Economic Impacts of AB 32 on California Small Business, 2010, *available at:* www.ucsusa.org/global_warming/solutions/big_picture_solutions/AB-32-and-CA-small-business.html
[xii] See endnote x at Table ES-2.
[xiii] California Energy Commission, 2011, *available at:* www.energy.ca.gov/title24/