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## CAP AND TRADE CAN FIGHT GLOBAL WARMING EFFECTIVELY WHILE ALSO PROTECTING CONSUMERS

by Chad Stone, Hannah Shaw, and Sharon Parrott

Some critics of President Obama's budget have argued that the proposal to place a cap on greenhouse gas emissions to combat global warming represents a tax increase for virtually all Americans. That claim is misleading because it focuses on just one aspect of the Administration's cap-and-trade proposal. It ignores the fact that, in addition to raising the cost of using "dirty" energy, a well-designed cap-and-trade program also raises substantial revenue that can be returned to consumers to offset the effect of higher energy costs on their budgets, with the result that no significant "tax increase" occurs. That is what the President's proposal would do.

### Cap and Trade Is an Efficient and Effective Way to Reduce Emissions

Economists agree that the most efficient way to reduce carbon emissions is either to tax them directly or to put in place a "cap-and-trade system."<sup>1</sup> Several northeastern states have already implemented a cap-and-trade system on a regional basis as part of the Regional Greenhouse Gas Initiative. In addition, the 27 nations of the European Union have operated a cap-and-trade system since 2005.

A cap-and-trade system puts a limit (or "cap") on the overall amount of greenhouse gases — mainly carbon dioxide from the burning of fossil fuels — that businesses are allowed to emit each year. Electric power plants, oil refineries, and other firms responsible for emissions of carbon dioxide and other greenhouse gases are then required to purchase permits (called allowances) for each ton of greenhouse gas pollution they emit.

Over time, the number of emissions allowances would shrink in order to achieve the substantial emissions reductions that scientists say are necessary to curb global warming. This would force the

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<sup>1</sup> Like a cap-and-trade system, a carbon tax — a government-imposed charge on firms for every ton of greenhouse gas pollution they produce — uses market forces to achieve cost-effective emissions reductions. The two mechanisms operate in different ways, however. A cap-and-trade system specifies the amount by which emissions must be reduced and lets the market determine how high energy-related prices need to rise to achieve that reduction. A carbon tax does the reverse: it specifies the amount by which energy-related prices will rise, but it lets the market determine how much of an emissions reduction that price increase will cause.

Both mechanisms lead to pollution abatement and generate revenues that can be used to offset the effects of the energy cost increases that result.

economy to gradually adapt by reducing emissions through energy conservation, improved energy efficiency, and greater use of alternative clean energy technologies.

Firms are free to buy and sell (i.e., to “trade”) emission allowances. The price for carbon depends on the level at which the cap is set and the technology available to produce goods and services that use less carbon. Companies that are able to reduce their emissions easily can sell allowances to companies that have more trouble reducing their emissions.

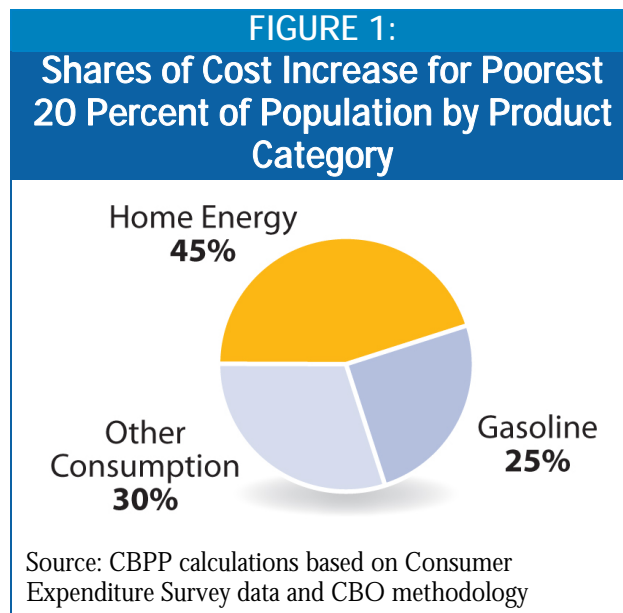
Thus, cap and trade would give firms incentives to pursue cost-effective ways of cutting emissions. The less carbon a firm produces as part of its normal operations, the less money it must spend on purchasing allowances, or the more money it can make by selling its allowances to firms that are not able to reduce their pollution production as easily.

### Cap and trade Generates Revenues to Protect Consumers Against Higher Energy Prices

A cap-and-trade system would raise the prices of goods and services whose production and use involve the emission of greenhouse gases. But it would also generate revenues to offset the effects of these cost increases.

Consumers would face higher prices both for home heating and cooling and for gasoline, food, and other items made with or transported by fossil fuels (see Figure 1).<sup>2</sup> These higher energy-related prices are necessary to encourage emissions reductions. But they do not have to reduce households’ purchasing power. That depends on whether emissions allowances are given away free to polluters or auctioned and the proceeds then used to compensate consumers.

The Obama Administration’s budget calls for auctioning all of the permits; the federal government would auction emissions allowances, and firms that emit carbon dioxide or other greenhouse gases would be required to purchase the permits. If instead, allowances were given away free to polluting firms, only the firms and their shareholders would benefit. These firms would, as CBO has explained, receive “windfall profits”: they would be able to charge higher



<sup>2</sup> Low- and moderate-income households would be hit the hardest by the price increases, for several reasons. They are already living on limited budgets, they spend a larger share of their budgets on necessities like energy than more affluent households do, and they are less able to afford investments that can reduce their energy demand, such as more efficient home appliances, heating systems, or automobiles. That is why relief for low- and moderate-income consumers is an important part of a cap-and-trade system.

prices for their products, but they would not have to pay for their emissions allowances.<sup>3</sup> Ordinary consumers would get no help in dealing with the strain that the higher prices put on their budgets.

Auctioning the emission allowances rather than giving them to firms free of charge will generate substantial revenue that can be used for a variety of purposes, including offsetting the impact of higher energy-related prices on low- and middle-income consumers. (This would still leave considerable resources from the auction proceeds for investments to promote the transition to cleaner energy sources.)

The Administration's budget follows this approach, using a share of the auction proceeds for consumer relief — including about \$65 billion of relief delivered every year through a permanent extension of the Making Work Pay tax credit. It also would use \$15 billion a year for clean technology investments to facilitate the transition away from fossil fuels.

Additional measures to protect consumers — particularly individuals with very low incomes, some seniors, and others who do not pay taxes — will be necessary, and it is likely that the relief provided through the Making Work Pay tax credit will need to be increased or supplemented over time to respond to the increase in energy costs as the emissions cap tightens. The Center on Budget and Policy Priorities has outlined possible ways of delivering this additional support, through a combination of tax credits to consumers generally and electronic benefit transfers to very low-income consumers who are not in the tax system.<sup>4</sup> The resources to fund these additional measures should be available because the amount of revenue that a cap-and-trade system will generate should be significantly greater than what is needed for the two proposals laid out in the President's budget.<sup>5</sup>

## The Payoff to Putting a Price on Pollution

The United States will incur some economic costs to change the way we produce and consume energy in order to reduce greenhouse gas emissions. But a broad consensus exists among scientists that reducing carbon emissions is essential to protecting the planet — and our long-term prosperity. In other words, failure to act is the more costly policy.

Higher energy prices under a cap-and-trade system will give all consumers the incentive to conserve energy and invest in energy efficiency, while rebates make sure the typical consumer has the necessary resources to respond appropriately to those higher prices without taking a substantial hit to his or her budget. Critics who argue that the revenue for climate change legislation in the

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<sup>3</sup> A cap on emissions will limit the amount of energy produced from fossil fuels. Regardless of whether the government gives away or sells the allowances, market forces will raise the price of fossil-fuel energy to the point where the amount demanded will fall to equal the amount supplied. Whether they have to pay for allowances or receive them for free, energy companies will be able to sell their products at the higher price. The increase in prices is the source of windfall profits for the companies that receive allowances for free but are able to charge the higher price.

<sup>4</sup> See Chad Stone and Hannah Shaw, "Extending 'Climate Rebates' to Include Middle-Income Consumers," Center on Budget and Policy Priorities, February 19, 2009. <http://www.cbpp.org/2-19-09climate2.htm>.

<sup>5</sup> The President's budget effectively states that the revenues from climate change legislation will be greater than the amount identified in the budget, as it says that "the balance of the revenue will be returned to the people, especially vulnerable families, communities, and businesses to help with the transition to a clean energy economy." See, Office of Management and Budget, *A New Era of Responsibility: Renewing America's Promise*, p. 21.

President's budget represents a tax increase on American consumers ignore both the benefits from climate change legislation and the measures that would be taken under the Administration's proposal and supplementary proposals to ensure that most consumers, especially those of modest means, are protected.