



Highlights of [GAO-09-950T](#), a testimony before the Committee on Finance, U.S. Senate

Why GAO Did This Study

Congress is considering proposals to establish a price on greenhouse gas emissions through a cap-and-trade program that would limit overall emissions and require covered entities to hold tradable emissions permits, or allowances, for their emissions. The purpose of such a program is to raise the cost of activities that produce emissions and thereby provide an economic incentive to decrease emissions.

Carbon dioxide, which results from burning fossil fuels, is the primary greenhouse gas and accounts for about 80 percent of U.S. emissions. A cap-and-trade program would increase the cost of burning fossil fuels and other activities that generate emissions and potentially raise costs for consumers. A key decision is the extent to which the government offsets these costs. For example, the government could sell the allowances and then return the revenues to covered entities or households. The government could also give away some or all of the allowances. According to the Congressional Budget Office, the value of the allowances could total \$300 billion annually by 2020.

Today's testimony provides preliminary results of ongoing work assessing the potential effects of (1) allowance allocation methods, and (2) options for distributing program revenues or the economic value of allowances.

GAO reviewed economic literature and interviewed experts in climate policy, including those involved in existing cap-and-trade programs.

View [GAO-09-950T](#) or key components. For more information, contact John Stephenson, (202) 512-3841, stephensonj@gao.gov

CLIMATE CHANGE POLICY

Preliminary Observations on Options for Distributing Emissions Allowances and Revenue under a Cap-and-Trade Program

What GAO Found

The method for allocating allowances in a cap-and-trade program can have significant economic implications for the government, regulated entities, and households. Most importantly, a cap-and-trade system would create a market for a valuable new commodity: emissions allowances. The government could allocate these allowances to regulated entities in three main ways. First, it could auction all of the allowances and collect a significant amount of revenue that it could use, for example, to compensate households affected by the cap-and-trade program. Second, it could give away the allowances to entities affected by the program and thereby transfer the value of the allowances to those entities. This could enhance the program's appeal to covered entities but could also increase the program's overall cost to the economy if it reduced incentives for those entities to decrease their emissions. Third, the government could give away some allowances and auction the rest. For example, studies have suggested that freely allocating 6 to 21 percent of the allowances created by a cap-and-trade program would be sufficient to compensate entities in energy-intensive industries for any profit losses incurred as a result of the cap-and-trade program. According to the economic literature and economists we interviewed, regardless of the mechanism for distributing allowances, consumers will bear most of the costs of a cap-and-trade system because most regulated entities will pass along their increased costs in the form of increased prices; however, these costs could be largely offset depending on how revenues are used.

Available literature and economists we interviewed point to five main options for distributing a program's allowance revenues, although numerous other options exist. First, the government could lower the overall cost of the cap-and-trade program to the economy through accompanying reductions in taxes on income, labor, or investment. Second, auction revenues could be distributed to households through lump-sum payments, which could offset the higher consumer prices resulting from a cap-and-trade program and mitigate any disproportionate impacts on low-income households. Third, the government could expand the scope of the Earned Income Tax Credit to further benefit low-income working families. Fourth, the government could compensate regulated entities and their shareholders for lost profits by allocating them free allowances. Finally, revenues might be used to fund climate-related programs, such as research on low-carbon technologies, or used to support climate change mitigation activities in developing nations. Each potential use of revenues has trade-offs. For example, decreasing tax rates could lower the overall economic cost of the program; however, this approach may do little to compensate low-income consumers, who would receive greater benefit from a direct rebate. In addition, using revenues to dampen increases in energy prices may benefit ratepayers but reduce their incentives to conserve energy, potentially increasing the program's overall cost.