

The Basics of Carbon Cap and Auction

Among the proposed methods for curbing global warming is a national cap and auction program. Cap and auction generally refers to 1) the establishment of an emissions cap that would limit and reduce overall greenhouse gas emissions in a certain set of economic sectors, and 2) the creation of a system that turns emissions reductions into equal economic units (generally one ton) that can be traded or auctioned like a currency.

The theory behind cap and auction is that such a system enables maximum economic efficiency and flexibility for the market by encouraging those entities that can most cost-effectively reduce their emissions to do so aggressively. These processes theoretically combine to produce the lowest price for the reduction of emissions in the economy while ensuring progress toward meeting environmental goals.

Some cap and auction proposals are designed to be “economy-wide”; to take on the whole of U.S. emissions. Others are or could be limited to the utility, industrial, or transportation sectors or some combination.

Cap and Auction Versus Other Options

The two other most discussed methods of controlling greenhouse gases are a “carbon tax,” and “direct regulation” of emissions.

Many economists ascribe the greatest economic efficiency to the imposition of a tax on carbon. By this line of thought, the higher price will simply shift behavior to lower carbon options of powering the economy. The biggest advantage is simplicity and speed of implementation. Critics of a carbon tax note the difficulty of arriving at the proper tax level to achieve the desired emission reduction outcome.



Energy legislation that directly regulates greenhouse gas emissions from the dirtiest sources, including power plants and industrial sources, could very effectively reduce greenhouse gases.

Congress has recently introduced various bills to serve as comprehensive global warming legislation, all of which encompass a carbon cap and auction program. The basic elements of such a system include long and short-term emission reduction goals, an allocation system for carbon allowances, and methods for enforcement. The effectiveness of global warming legislation greatly depends on the details of these elements.

Sierra Club Position

Scientists tell us that we must reduce carbon emission by at least 80% by 2050 to prevent global temperatures from exceeding 2° Celsius above pre-industrial averages. The Sierra Club supports legislation that both requires the U.S. to meet this long-term goal and also requires a short-term emission reduction goal of at least 20% by 2020, thereby ensuring we are on a path to avoid dangerous climate change

The carbon emission allocation system is pivotal in determining the success of global warming legislation. While many bills propose freely distributing credits to polluters as a way to garner political and commercial support, the Sierra Club firmly supports a 100% auction system. An auction system would avoid windfall profits for polluters and generate revenue to incorporate clean energy alternatives into the U.S. energy

portfolio and assist vulnerable communities and natural habitats with measures necessary to adapt to the effects of climate change, including higher energy costs.

Lastly, enforceability mechanisms within comprehensive legislation must ensure polluter compliance with both short and long-term emission reduction goals. Necessary conditions include accurate inventory of baseline greenhouse gas emissions as well as effective systems for measuring future reductions. Also necessary is the exclusion of loopholes and opportunities for polluters to legally comply with a cap and auction program while actually sustaining high levels of greenhouse gas pollution.

The Club believes that a well-designed cap and auction program can successfully control global warming if implemented in concert with energy legislation including a renewable electricity standard, a utility energy efficiency standard, and strong fuel economy standards for vehicles. By applying both comprehensive global warming legislation as well as sectoral energy regulation, we can prevent crossing the dangerous tipping point of 2° Celsius above pre-industrial averages.