Minnesota Budget Project

The Basics of Cap and Trade

What is cap and trade?

In a cap and trade program, a cap is set in order to limit the overall amount of greenhouse gas or carbon pollution that can be emitted in a given year. The overall amount of allowed pollution is divided up into a number of permits — in this case usually referred to as allowances. Individual sources of pollution, such as utilities or oil refineries, must have the appropriate amount of allowances in order to emit their global warming pollution. If such sources find ways to reduce their pollution, often through technological innovation, then they can profit by trading extra allowances with others that may not have made such innovations to reduce their pollution. In this way, market forces are part of the program. Over time, the cap is lowered (meaning fewer allowances are available), so the total amount of global warming pollution will decline.

How would cap and trade work under proposed legislation?

1. First the government must agree on a set cap on the amount of carbon pollution that can be emitted in a given period of time, such as a year. (Current legislation in the Senate has targeted a 17 percent reduction of emissions by 2020.[1])

2. Then the government divides this amount into a number of individual allowances, each of which represents a unit of pollution (a ton of carbon dioxide or its equivalent of other greenhouse gases).

3. The government will distribute allowances to sources of pollution, such as a utility. When a source emits a unit of pollution, it uses up an allowance. The source can only emit pollution if it has an allowance to do so. (Current legislation uses a mixture of auctioned allowances and allowances awarded to specific entities with stipulations tied to the use of their monetary value. In either case, the value of the allowances is determined by the market, or how much polluters are willing to pay.)

4. Sources of emissions can trade allowances, which means they can buy and sell them as needed to achieve compliance given their current levels of pollution.

5. As the cap or limit on emissions gets smaller over time, the incentive to reduce pollution increases. This is a result of a lower number of total allowances, meaning they become a more limited commodity which in turn makes them more expensive. While purchasing allowances becomes more expensive over time, investments in technology to reduce pollution tend to become more affordable over time — making them a more attractive option in the long run.

[1] Summary of the American Power Act, http://kerry.senate.gov/imo/media/doc/APAShortSummary1.pdf.