



# Cap and Trade 101

## What is Cap and Trade?

**The goal:** To steadily reduce carbon dioxide and other greenhouse gas emissions economy-wide in a cost-effective manner.

**The cap:** Each large-scale emitter, or company, will have a limit on the amount of greenhouse gas that it can emit. The firm must have an “emissions permit” for every ton of carbon dioxide it releases into the atmosphere. These permits set an enforceable limit, or cap, on the amount of greenhouse gas pollution that the company is allowed to emit. Over time, the limits become stricter, allowing less and less pollution, until the ultimate reduction goal is met. This is similar to the cap and trade program enacted by the Clean Air Act of 1990, which reduced the sulfur emissions that cause acid rain, and it met the goals at a much lower cost than industry or government predicted.

**The trade:** It will be relatively cheaper or easier for some companies to reduce their emissions below their required limit than others. These more efficient companies, who emit less than their allowance, can sell their extra permits to companies that are not able to make reductions as easily. This creates a system that guarantees a set level of overall reductions, while rewarding the most efficient companies and ensuring that the cap can be met at the lowest possible cost to the economy.

**The profits:** If the federal government auctions the emissions permits to the companies required to reduce their emissions, it would create a large and dependable revenue stream. These financial resources could be used to achieve critical public policy objectives related to climate change mitigation and economic development. The federal government can also choose to “grandfather” allowances to the polluting firms by handing them out free based on historic or projected emissions. This would give the most benefits to those companies with higher baseline emissions that have historically done the least to reduce their pollution.

## What Would a Successful Cap-and-Trade Program Look Like?

**The goal:** To limit the rise in global temperature to approximately 2.0 degrees Celsius (3.6 degrees Fahrenheit) above pre-industrial levels by 2050 by reducing carbon dioxide and other emissions from companies as part of a larger plan for curbing global warming.

**The cap:** To achieve this goal, the U.S. government should steadily tighten the cap until emissions are reduced to 80 percent below 1990 levels by 2050. Businesses would have to obtain

permits entitling them to emit a certain quantity of carbon dioxide or its equivalent in other greenhouse gases. All permits would be auctioned off by the government. Emissions permits in the near term would likely fall in the range of \$10 to \$15 per metric ton of carbon dioxide or its equivalent.

**The trade:** Companies unable to meet their emissions quotas could purchase allowances from other companies that have acquired more permits than they need to account for their emissions. The cost of buying and selling these credits would be determined by the marketplace, which over time would reduce the cost of trading the credits as trading becomes more widespread and efficient.

**The profits:** Initial estimates by the Congressional Budget Office project that an economy-wide cap-and-trade program would generate at least \$50 billion per year, but could reach up to \$300 billion. Approximately 10 percent

of this revenue should be allocated to help offset costs to businesses and shareholders of affected industries. Of the remaining revenue, approximately half should be devoted to help offset any energy price increases for low- and middle-income Americans that may occur as a result of the transition to more efficient energy sources. The other half of the remaining revenue should be used to invest in renewable energy, efficiency, low-carbon transportation technologies, green-collar job training, and the transition to a low-carbon economy. Some resources should also be invested in the energy, environment, and infrastructure sectors in developing nations to alleviate energy poverty with low-carbon energy systems and help these nations adapt to the inevitable effects of global warming. Revenues from the permit auction would essentially be “recycled” back into the economy to facilitate the transition to an efficient, low-carbon energy economy and ensure that consumers are not unduly burdened by potentially higher energy costs.