How cap and trade works

Learn how this key mechanism works to reduce emissions

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Cap and trade is the most environmentally and economically sensible approach to controlling greenhouse gas emissions, the primary driver of global warming.

The "cap" sets a limit on emissions, which is lowered over time to reduce the amount of pollutants released into the atmosphere.

The "trade" creates a market for carbon allowances, helping companies innovate in order to meet, or come in under, their allocated limit. The less they emit, the less they pay, so it is in their economic incentive to pollute less.

A cap: The only sure way to limit pollution

A cap sets a maximum allowable level of pollution and penalizes companies that exceed their emission allowance. No other system can guarantee to lower emissions.

- **The cap is a limit** on the amount of pollution that can be released, measured in billions of tons of carbon dioxide (or equivalent) per year. It is set based on science.
- **It covers all major sources of pollution.** The cap should limit emissions economy-wide, covering electric power generation, natural gas, transportation, and large manufacturers.
- **Emitters can release only limited pollution.** Permits or "allowances" are distributed or auctioned to polluting entities: one allowance per ton of carbon dioxide, or CO_2 equivalent heat-trapping gases. The total amount of allowances will be equal to the cap. A company or utility may only emit as much carbon as it has allowances for.
- **Industry can plan ahead.** Each year, the cap is ratcheted down on a gradual and predictable schedule. Companies can plan well in advance to be allowed fewer and fewer permits – less global warming pollution

– each year.

Trading: Leads to investment and innovation

Some companies will find it easy to reduce their pollution to match their number of permits; others may find it more difficult. Trading lets companies buy and sell allowances, leading to more cost-effective pollution cuts, and incentive to invest in cleaner technology.

Unlike with some pollutants, all CO2 goes into the upper atmosphere and has a global — not local — effect. So it doesn't matter whether the factory making the emission cuts is in Boston, Baton Rouge, or Berlin, it reduces global emissions.

- **Companies can turn pollution cuts into revenue.** If a company is able to cut its pollution easily and cheaply, it can end up with extra allowances. It can then sell its extra allowances to other companies. This provides a powerful incentive for creativity, energy conservation and investment — companies can turn pollution cuts into dollars.
- **The option to buy allowances gives companies flexibility.** On the other hand, some companies might have trouble reducing their emissions, or want to make longer-term investments instead of quick changes. Trading allowances gives these companies another option for how to meet each year's cap.
- **The same amount of pollution cuts are achieved.** While companies may exchange allowances with each other, the total number of allowances remains the same and the hard limit on pollution is still met every year.

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