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ENR 7320
Climate Literacy Tool

CARBON FEE AND DIVIDEND: A SOLUTION FOR THE CLIMATE



Why a carbon tax?

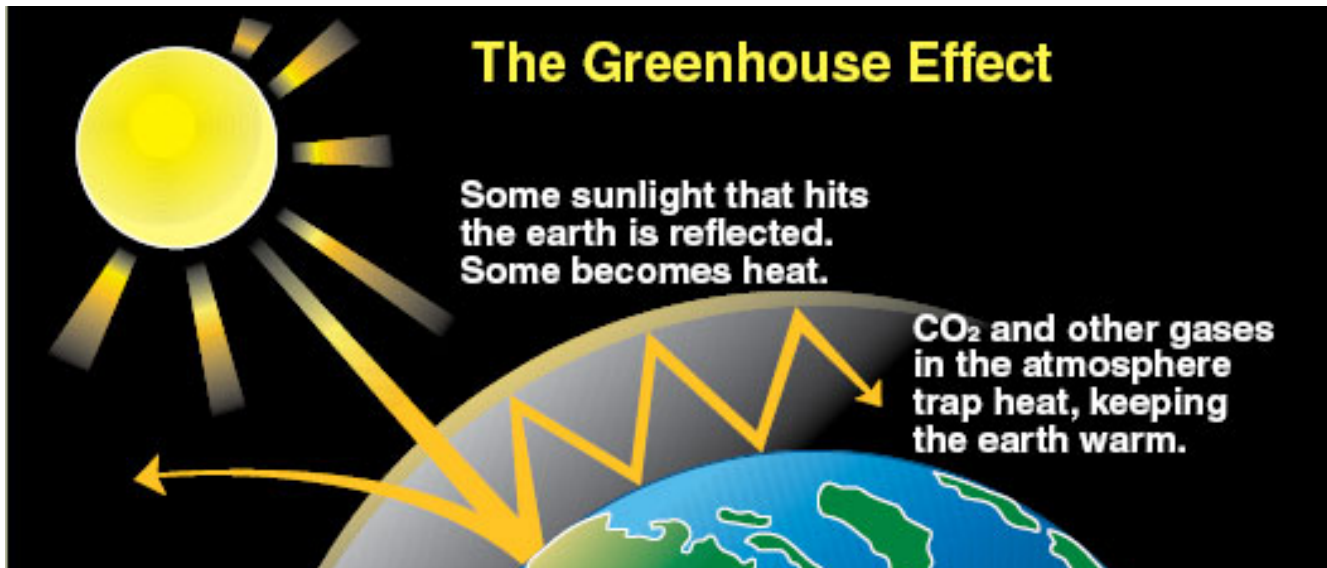
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“Serious, pervasive and irreversible.” That’s how the latest report from the Intergovernmental Panel on Climate Change describes the impacts on human society and nature. These impacts include hotter summers, melting glaciers, sea level rise, ocean acidification, extreme weather, frequent droughts, and increased wildfires, among other things.

What is responsible for this climate destabilization? Scientists believe that greenhouse gases – chiefly carbon dioxide or CO_2 – released by the burning of fossil fuels is changing the atmosphere and ocean.

CO_2 in the atmosphere acts as a blanket, trapping heat and warming the planet. In the ocean it reacts with water to change the pH balance, threatening the survival of marine calcifying organisms such as coral, plankton, and shellfish.

In economic terms, carbon emissions are a classic example of an **externality** – or a cost to society and nature of using a good not accounted for in the price of that good. And the solution most economists recommend to correct externalities is a tax to internalize the external costs.



Background: What is the IPCC?

The **Intergovernmental Panel on Climate Change** (IPCC) is a scientific body set up by the United Nations in 1988 at the request of member governments. It produces reports to support the United Nations Framework Convention on Climate Change (UNFCCC), which is the main international treaty on climate change. The treaty's purpose is to "stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic (human caused) interference with the climate system." The IPCC does not do its own research but rather synthesizes research done by others. Thousands of scientists donate their time and expertise. The IPCC won the Nobel Peace Prize in 2007.

2,000
scientists

30,000
pieces of
research

143,000
expert
comments





The costs of carbon

Quantifying the costs of carbon pollution is difficult because climate change affects every sector of society. However, some costs can be identified:

Severe weather: The National Oceanic and Atmospheric Administration reports the number of severe weather events that inflict at least \$1 billion in damage has risen from an average of two per year in the 1980s to more than 10 per year since 2010. Some of these events cost much more than \$1 billion, as extreme weather events now cost the United States

more than **\$80 billion per year**.

Health effects: Burning fossil contributes to four of the five leading causes of death in the United States, including heart disease, cancer, stroke, and lung diseases, while putting children at risk of asthma and delayed mental development. Coal plants alone cause more than 13,000 deaths each year. According to the National Academy of Sciences, the burning of fossil fuels causes **\$120 billion annually** in health-related damages.

How does it work?

PART ONE

CARBON FEE

\$15 per ton of CO₂, increasing \$10/year

A tax is placed on carbon-based fuels at the source (well, mine, port of entry).

This tax starts at \$15 per ton of fossil CO₂ emitted, and increases steadily each year by \$10 so that clean energy becomes cheaper than fossil fuels within a decade.

PART TWO

DIVIDEND

2/3 of U.S. households break even or better

All of the money collected is returned to American households on an equitable basis.

Under this plan about 2/3 of all households would break even or receive more in their dividend checks than they would pay in higher prices due to the tax, thereby protecting the poor and middle class.

PART THREE

BORDER TAX

Provides a level playing field for U.S. companies

To keep American businesses from being placed at a competitive disadvantage, a border tax is levied on imports from nations that lack carbon pricing.

This keeps the international playing field level and provides incentives for other countries to reduce their use of fossil fuels.



The REMI Report

A report from **Regional Economic Models Inc. (REMI)**, examines the economic, climate, budgetary, power generation, and demographic impacts of a revenue-neutral carbon tax. The study finds that by 2025, the nation would see substantial benefits.

The fee and dividend returns nearly \$400 billion to households -- or **almost \$300 per month for a family of four** -- which consumers would then

spend on industries such as health care, housing, and retail. The impact on cost of living is less than 3%, while gross domestic product (GDP) increases \$80 billion to \$90 billion.

A carbon tax aids in retirement of coal plants and accelerates investments in wind, solar, and nuclear power. Improvements in quality of air and water decrease disease and prevent deaths.

There is no economic argument against a carbon fee and dividend. It creates jobs, grows the economy, saves lives, and makes Americans richer. It does this while cleaning the environment and significantly reducing CO₂ emissions.

Results Summary



Economic

- 2.0 to 3.0 million more jobs than in the baseline
- \$70 to \$90 billion in additional annual GDP

Climate

- Significant reduction in carbon dioxide emissions
- -33% from baseline by 2025, -52% by 2035

Fiscal

- Up to \$600 billion in revenues by the 2030s
- Familial rebate of \$200 per month by 2025

Electricity

- Retirement of coal fleet by the mid-2020s
- Replaced by wind, nuclear, solar, and geothermal

Demographic

- 11,000 to 13,000 annual saved premature deaths
- Larger population, mostly in the Midwest

“If you want to join the fight to save the planet, to save creation for your grandchildren, there is no more effective step you could take than becoming an active member of this group.”

-- NASA scientist James Hansen

**CITIZENS CLIMATE LOBBY
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