

## What is a Carbon Fee and Dividend ?

By Todd J. Smith, Citizens Climate Lobby volunteer

### Why is this legislation necessary?

This legislation will put us on the path of a sustainable climate by reducing our greenhouse gas emissions and transitioning us to a clean energy economy. Since the beginning of the industrial revolution we have increased the level of greenhouse gases, especially carbon dioxide (CO<sub>2</sub>), in our atmosphere. Scientists warn that this is having a drastic effect on our climate. Changes that would normally take thousands of years are happening in decades. In effect, we have covered the earth with a large blanket of greenhouse gases and the earth is warming up. The oceans are absorbing this increased carbon dioxide in the atmosphere, making them more acidic. Eventually, this acidity will affect the oceans' ability to support life.

### What is a carbon fee?

It is a fee based on the amount of carbon in a fossil fuel. Fossil fuels such as oil, gas and coal contain carbon. When burned they release the potent greenhouse gas, carbon dioxide (CO<sub>2</sub>), into the atmosphere. The fee is based on the tons of carbon dioxide the fuel would generate, and it would be collected at the point of entry -- well, mine or port. The fee would start out low -- \$15 per ton -- and gradually increase \$10-\$15 each year. The amount would be determined by Congress.

### How much will the carbon fee effect energy prices?

The best example would be gasoline. A \$1 per ton increase in the carbon fee would equal about 1 penny on the price of gas. So if the carbon fee started at \$15/ton, gasoline would go up by 15 cents per gallon the first year and 10-15 cents each year afterward.

### What is the dividend?

A dividend is defined as a quantity of revenue to be divided. In this case, 100 percent of the total carbon fees collected are divided up and given back to all citizens equally. This dividend helps citizens pay the increased costs associated with the carbon fee while our nation transitions to a clean energy economy.

### How does Carbon Fee and Dividend legislation work?

Carbon Fee and Dividend legislation puts a fee on the amount of carbon dioxide in fossil fuels. This fee is assessed at the source of the fuel: at the mine, well, or port of entry. The fee starts out low and increases annually in a predictable manner until green energy is competitive with fossil fuel. The fee is collected and 100 percent reimbursed to all citizens, shielding them from the financial impact of the transition to a clean energy economy. Because the fee (and the price of fossil fuel) goes up predictably over time, it sends a clear price signal to begin using fossil fuels more efficiently or replace them with green energy. Investment flows to green technologies and the rising cost of fossil fuels increases the demand for these products, making them even less expensive as they reach mass production. This clear easy to understand price signal (increasing fossil fuel costs and decreasing green technology costs) drive the transition to a green economy. This transition will reduce greenhouse gases stabilizing, our climate and the health of our oceans.

### What are the consequences if we do nothing?

According to the U.S. National Academy of Sciences we are already experiencing the warning signs of climate change -- more extreme weather, longer droughts, worse flooding, warmer average ocean and surface temperatures, disappearing glaciers, melting ice caps and snow fields, increased land desertification, rising ocean levels and ocean acidification, mass extinction of animal species because they cannot move fast enough or adapt soon enough to the changes in their habitat. We are already at climate reinforcing points (when warming speeds up). A good example is the North Pole's ice cap which is over water. This ice cap has traditionally reflected 90% of the solar radiation, which falls on it, back into space keeping the ocean underneath cold. This icecap is disappearing in the summers allowing the open ocean to absorb most of the heat. This is speeding up the warming of the water and melting of the icecap. Our top climate scientists warn us that we need to bring CO<sub>2</sub> levels back down to 350 parts per million in the atmosphere. We are currently at 392 and rising by 2-3 ppm annually. This is what is forcing our climate to warm, and because oceans absorb a large percent of this CO<sub>2</sub>, our oceans are becoming more acidic.

### How is this legislation fair to businesses, utilities, manufacturer, services, farms?

By giving all of the carbon fee back to the citizens -- the end users -- consumers will be able to pay the higher prices of goods and services caused by the higher price of fossil fuels. This allows businesses to pass along the increased cost and keep market share. Each year the carbon fee goes up, the dividend goes up as well. Everyone is on a level playing field for the first few years. But if businesses do not become more energy efficient and start converting to green energy they will become less competitive and lose market share. These market forces will drive innovations in green technology, creating new business opportunities to develop, produce, install and service these products. This will create millions of new jobs here in America. American companies will be able to sell these green technologies globally and American companies will become more efficient with the energy they use, making them more competitive worldwide.

### Why will citizens change to green technologies if they are given a dividend to pay for the increasing price of fossil fuels?

With Carbon Fee and Dividend legislation, it is clear to citizens that fossil fuels will go up every year. Part of their motivation is to save as much of their dividend check as possible rather than spending it on more expensive fossil fuels. They can do this by changing over to energy efficient lighting and appliances, upgrading their insulation or windows, replacing that old oil furnace with a geothermal heat pump, etc. When it comes time to get another vehicle, they would consider one that gets better gas mileage or an all-electric vehicle. They can then buy clean electricity (where available) through their utility to charge their car, getting them off fossil fuels altogether. The motivation is to reduce cost in the years to come.

### How will our manufacturers be protected?

The CCL legislative proposal calls for placing a border adjustment levy on all imports from countries that do not price carbon similarly, leveling the playing field for our companies and complying with the World Trade Organization (WTO) to foster competition.

### How will our exporters be protected?

The legislative proposal calls for rebating the border adjustment fee to American companies exporting to countries without similar carbon pricing, leveling the playing field for our companies and complying with the World Trade Organization (WTO).

### Why will the adoption of Carbon Fee and Dividend legislation put America in the leadership position on climate change?

Because of the carbon fee border adjustments, exporting countries will either adopt similar carbon pricing or pay at our border. All countries that adopt similar fees on carbon are on the same level playing field and can make border adjustments with countries that do not adopt such fees. This encourages all countries to place similar fees on carbon. As more nations adopt carbon fees, worldwide demand brings the best green technologies to mass market faster, driving down costs and making the transition to a green economy less expensive for everyone.

## What is green technology?

Green technology is any technology that reduces waste, increases energy efficiency, or produces low- or no-carbon energy. By reducing waste you actually save energy. Recycling aluminum cans for example, uses only about 5 percent of the energy needed to make aluminum from ore. Energy efficient technologies include Light-Emitting Diodes (LEDs) and Compact Fluorescent lighting, energy star appliances, efficient building design, high efficiency windows, hybrid and all electric cars, etc. Green technology includes those technologies that help us use fossil fuels more efficiently. Green energy (also known as clean energy) is energy produced by sources -- solar, wind, wave, geothermal, biomass, biofuel -- that do not contribute to total greenhouse gas emissions.

## How many new jobs will be created if we adopt Carbon Fee and Dividend Legislation?

The American Solar Energy Association did a recent study estimating that 4.2 million new jobs would be created in America over the next 10 years if we adopt sound climate legislation. Carbon Fee and Dividend legislation is very transparent, easy to understand and fair to all parties making it more likely to achieve the intended goals of lowering total CO2 levels while transitioning to a green economy. The transition to a green economy creates the jobs researching, manufacturing, installing and servicing green technologies that reduce our dependence on fossil fuels.

## What benefits will America receive by addressing climate change through Carbon Fee and Dividend legislation?

1. We will reduce the CO2 level in the atmosphere back down to 350 ppm or less, stabilizing our climate and oceans and slowing down the mass extinction of species.
2. It will put America in a position of leadership on climate legislation and in green technology. Governments will be forced to adopt the same carbon fees as we do or their exports to our country will be charged the carbon fee at our ports.
3. It will decrease our dependence on foreign oil, substituting green technology and green energy made in the U.S. The U.S. spends up to \$200 billion annually on imported oil. When we substitute that for green energy made in America it creates jobs. We can create more jobs developing green technology and clean energy than we can drilling for oil (without the risks or damage to the environment), and we can export green technology worldwide.
4. Decreasing our dependence on foreign oil increases our national security. Much of our military budget is spent protecting the free flow of oil and propping up the bad governments that control it.
5. The transition to clean energy will clean our air of smog, ozone, fine particulate matter and other pollutants caused by burning fossil fuel. It will clean our lakes, rivers and oceans from the mercury poisoning caused by burning coal, the leachates from coal mine tailings and salt brines from drilling.
6. We will gain a sense of national pride by tackling and achieving a tough goal together, leading the world not in the industrial revolution or the information age but in the Green Technology Revolution. Most of the green technologies we know of today were developed and tested in American laboratories only to be brought to market in other countries because those governments had national energy policies encouraging the adoption of green energy. We have already lost millions of jobs by holding on to the centuries-old technology of fossil fuels while other countries are transitioning to clean-energy economies. It is time we regained the lead.

## Why is Carbon Fee and Dividend better than Cap and Trade?

**Cap and Trade** was used by some early signers of the Kyoto Protocol, the first international treaty to address climate change. Though most early adopters tried hard to make it work, Cap and Trade was not easy to understand, energy prices swung wildly, consumers paid the whole cost of the experiment, and it was not very effective in reducing total CO2 emissions. Much of the reason for this was because of offset credits. Power providers could buy offset credits that allowed them to burn more fossil fuels, but the offset credits did not actually reduce total CO2 emissions. Carbon traders and offset investors made lots of money. Utilities and manufacturers had increased costs that were passed on to the consumer. No real reduction in CO2 was achieved and the consumer was stuck with the bill. **Carbon Fee and Dividend**, on the other hand, is easy for everyone to understand, it gives the end consumer 100 percent of the proceeds of the carbon fee to help pay for the transition to clean energy, there are no offset credits or carbon credits to manipulate and no one technology is singled out to win or lose. Only with inaction over several years do you become disadvantaged. With action you become more efficient and competitive. The free market picks the winning and losing technologies. Green energy and efficiency measures become cost competitive as prices rise for fossil fuels. As we transition to green technologies and green energies, CO2 emissions are reduced. Investments in green energy spur the development of innovative technologies that we export to other countries. America regains leadership in the green revolution.