

FAIR PRICE ENERGY

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Introduction

In the hopes of starting a more serious national discussion of energy policy, this web page suggests a viable solution to the energy crisis in the United States. This new policy would take advantage of economic forces to push consumers and businesses towards improved efficiency and new technologies. Further, the plan would not increase the size of government and would be easiest on the poor.

The Crisis is Real

Many prominent leaders, including the president, have called for us to embrace new sources of energy and even reduce our energy usage. Currently, we produce energy for our homes, factories, and vehicles by burning oil, natural gas, and coal. There are two fundamental problems with producing energy from these fossil fuels:

1. Our dependence on imported energy sources, particularly oil, leaves us vulnerable in foreign policy, affects our economic prosperity, and effectively “finances both sides of the war on terror.”
2. The extraction and burning of fossil fuels contributes to global warming and other environment damaging activities.

It is not my intention to go into detail on these problems, as many others have already written about them (see links at right, for just a few examples). Instead, I would like to share an approach that is capable of taking on this crisis.

A Simple Plan

The first part of the plan is very simple. Two new fees, a security fee and a carbon fee, would be added to each energy purchase by consumers and businesses. Energy purchases would include gasoline, natural gas, and electricity. The security fee would be directly related to how that fuel or source of energy compromises our national security. Thus, for electricity produced from coal, which is produced domestically, there would be no security fee at all, while for gasoline and electricity produced from nuclear power plants, the fee would be quite high. The carbon fee would be similar – there would be high carbon fees for energy sources that contribute large amounts of greenhouse gases or are dangerous to extract (e.g., coal, oil, natural gas), while cleaner technologies (e.g., nuclear, wind, and solar) would have no carbon fees at all.

The second part of the plan is to return all of the fees back to United States taxpayers. Every taxpayer who files an income tax return would receive an “fee return” equal to the total fees collected for the entire country during the year divided by the total number of US taxpayers. Thus, every individual US taxpayer would receive an equally-sized return. Corporations would not receive a fee return. In this way, individuals that use less energy than average, would pay less in fees than they get back in their fee return. Those who use more energy, however, would pay more into the system than they would get back.

How it will work

If implemented, this plan would quickly address America's Energy Crisis, while not overburdening the economy, consumers, or the poor. The entire country would have a financial incentive to either switch to clean and safe energy sources, or to become more energy efficient. Doing so would mean paying less in energy fees.

Unlike many other proposals, the poor would fare quite well under this plan because they typically use the least energy. Other plans that favor particular technologies or simply tax energy would adversely affect the poor because a higher proportion of the poor's income is used for energy. With this plan, they would actually receive more dollars back from the program than they would pay in fees. And yet, the new fees on dirty or dangerous energy sources would still encourage them to use less of these fuels.

Appropriately sized energy fees would take full advantage of market forces, which time and again have proven to be the best tool for efficiently solving large scale economic problems. Currently, there are hidden costs to most energy sources (they fund terrorists or harm the environment) that are not paid by consumers. This effectively breaks the free market model because the *true* cost of energy is not reflected in its price. Security and carbon fees would fix this problem by increasing the cost of dangerous or dirty fuels to reflect their costs to society, not only their costs to extract and deliver. In comparison, subsidies for particular technologies effectively force a particular solution down the market's throat, usually with unintended and negative long-term consequences.

Because corporate energy usage would be subject to energy fees, but corporations would not receive a fee return, it would be necessary for the prices of energy-intensive goods and services to be increased. However, these increases would be offset by the fee returns given to consumers. Corporations, meanwhile, would have a large incentive to become more energy efficient and to switch to clean and safe technologies. Doing so would mean paying less in energy fees, giving them a competitive advantage in the marketplace.

Effects of Energy Fees on US Corporations

Firms doing business in the United States

From an economic standpoint, “average” industries and companies would come out equal under this plan. In this case, “average” would mean an industry or company that uses an average amount of energy in order to produce their product. While the costs of all goods and services would be increased (from paying energy fees), consumers would have more money available (from their energy returns) to spend and the effects would balance. However, energy-intensive industries would have to increase their prices more than average. Similarly, individual firms within an industry that are less energy efficient than their peers would have to learn to use less energy in order to maintain competitive prices.

Firms that export goods and services

Without an appropriate “fix,” energy fees would be a burden on American industries that export to other countries and compete on the international marketplace. To compensate, energy fees would need to be waived on energy used to produce goods and services that are exported to countries without security or carbon fees comparable to ours.

An energy import fee

Energy fees applied only to United States companies would also unfairly advantage foreign firms importing their goods in the US. To compensate, an appropriately sized energy fee should be added to such imports to level the playing field. The size of these fees should be based on estimates of the amount of energy required to produce the product, and any energy fees or taxes that exist in the country where the goods are produced.

Effects on government

Federal and state governments are also major consumers of energy, meaning that they would also be subject to the increased costs of energy. As a result, government agencies would be motivated to become more efficient, or face asking voters to pay for increased taxes. While such tax increases would be easier to bear because of fee rebates, they would nonetheless be unwelcome.

Fair Price Energy and a typical household

Making “Making a difference” Easier

Given the choice, we would all choose lifestyles that are healthy for our planet and do not compromise national security. Unfortunately, our high quality of life is possible only with the consumption of energy. Almost all of this energy currently comes from burning fossil fuels, which cause global warming and enrich regimes hostile to the United States. However, there are things that we can do to lessen the impact of our lifestyle. For example, we could drive more efficient cars or contract with our utility provider to obtain our energy from wind power. Choices such as these provide a tangible benefit to society, but often cost more and provide little benefit to the individual. The purpose of Fair Price Energy is to reward these choices. In the following discussion, I will show how an individual family will benefit from “green” choices.

How we “buy” our energy

The first step is to understand the role that energy plays in our life. When most of us think of energy use, we primarily think of our *direct* energy purchases - usually the gas we purchase at the pump and the utility bill we receive each month. However, we consume energy through all of the products and services that we purchase. As an example, when producing a box of cereal, energy is required to plant, nurture, and harvest the grain, to process the grain into cereal, to make the cardboard box and plastic liner, and to transport the final product to your store. Of course, the “energy content” for different products can vary greatly. All of this energy, expended by businesses that provide us with the “stuff” of our lives, adds up to quite a lot. In fact, more than half of our energy usage goes into the things we buy, and less than half goes into direct energy purchase (the gas pump and utility bill).

Increased costs for fossil fuels and energy intensive products

Energy fees would increase the price of dangerous and dirty fuels. This would immediately impact both direct fuel purchases and the prices of energy intensive products. Increased prices for gasoline, natural gas, and electricity generated from fossil fuels would reward consumers who purchase more efficient vehicles and would encourage utilities to switch to cleaner energy sources. Doing so would mean paying much less in energy fees. In addition, businesses that make energy-intensive products would quickly adapt and either switch to new technologies not subject to energy fees, or learn to make their products more efficiently. The effect of these price increases would be to encourage all of us to conserve energy and invest in new technologies.

A hefty refund

Perhaps the most important aspect of Fair Price Energy is that the increased costs due to energy fees would NOT be an undue burden on American families. While increased gas prices and increased costs for goods and services might seem to be hard to afford, we would also have more money to pay for them, thanks to the Fee Refund. If fees were set in such way that gas fees were increased by \$1.50/gallon, each taxpayer would receive a refund as large as \$4,000 which could easily cover the increased costs. However, because the refund amount is the same regardless of your lifestyle choices, reducing your gasoline consumption would still be “money in your pocket” because you would get to keep more of the refund. Similarly, purchasing fewer energy intensive products would save on energy fees.

Some example numbers

Reasonable carbon and security fees for gasoline might be set at \$0.75/gallon (for a total fee of \$1.50/gallon of gas). If similar carbon fees were set for coal and natural gas, we would generate about \$600 billion dollars in fees! (see lots of gory details in [this PDF document](#)) When returned equally to all taxpayers, this would mean that we would each receive a check for about \$4,000 (a family with two taxpayers would receive \$8,000).

For typical electricity and natural gas uses(600 kWhr and 80 themrs per month), energy fees would add up to \$900 per year (again, there are lots of details [here](#)). If the family drove 25,000 miles each year using vehicles that averaged 22 mpg, they would spend about \$1,700 in fees on gasoline. Together utility fees and gasoline fees would add up to only about \$2,600, much less than the \$8000 that the couple would receive in their fee rebate. The remaining refund would cover increased costs for goods and services, and anything left over would be “money in the bank” that they family could save or spend however they chose.

Other approaches - and their shortcomings

A number of solutions have been proposed to move the United States toward new fuel sources. Unfortunately, I do not believe that any of these proposals are both adequate to address the problem and fair to United States citizens. Here is a summary of some of these proposals:

1. Increased funding for research into new, cleaner technologies

The concept behind this plan is that by developing new technologies such as wind, solar, fuel cells, or biofuels we can provide new alternatives to today's technologies. Unfortunately, the current price of energy from these technologies is higher than the price of energy from existing fossil fuels. Undoubtedly, with continued research, the price of clean technologies will continue to decrease. However, we need to dramatically change our current energy production **now**, not in 5-10 years. So, while increased funding for research is important and should be pursued, more must be done.

2. Subsidies for new technologies

In this solution, clean technologies are given an advantage over fossil fuels using subsidies from the government. Examples include rebates for hybrid cars (which burn less gasoline), subsidies for farming corn to produce ethanol, and rebates for solar panel or windmill installations. The problem with these solutions is that they circumvent the market by favoring a particular technology. It should not be the government's job to decide which fuel sources are best – conservatives and liberals both agree that the market makes better choices than “big government.”

3. Gasoline tax

The purpose of a gasoline tax would be to more accurately reflect the “true” cost of gasoline. Currently, the environmental and national security complications of gasoline consumption are not accurately reflected in the price. Instead, we all get what economists call a “free ride.” An appropriately sized gasoline tax would allow the people and businesses to make their own choices, whether they be simply driving less, purchasing a more efficient vehicle, carpooling, or simply making no change and paying the tax. The government itself would not be dictating the best solution. There are also drawbacks to a gasoline tax. Perhaps most importantly, it would be hardest on the poor, whose gas purchases are larger portion of their expenses. Additionally, another tax would perhaps only exacerbate the size of “big government,” which many feel is inefficient. Of course, a tax only on gasoline would do nothing for the environmental harm caused by burning coal and natural gas.

The next steps

Implementing this plan or something similar will be a tremendous political challenge, to say the least. The first step would be to get the country talking seriously about free market solutions to our energy crisis. Currently, politicians view advocating for increased energy costs as political suicide. But if the public becomes educated on the issue, this will change. In Al Gore's words, "Political will is a renewable resource." The principal goal of this web site is to help start a national conversation that will allow the country to move forward.

Things you can do:

1. Let others know about this web site.
2. Write or email your representatives in Congress and the Senate and the White House asking them to consider energy fees.
3. Reference this site on your blog.
4. Reference this site in a letter to the editor of your local paper.
5. Email me ideas for improving my plan or improving this web site. While I do not currently have an open forum on this site, I will be happy to publish both support and criticism of my ideas. The only requirements are that they be civil and reasonably well-written. Comments critical of energy fees are welcome. Email me at chaz@fairpriceenergy.com.
6. Educate yourself on energy issues. Visit Wikipedia. See "An Inconvenient Truth." Read the arguments of the oil and gas industry.

About the author

Chaz Teplin is currently a scientist at the National Renewable Energy Laboratory in Colorado, where he works on new materials for photovoltaics. Chaz grew up near Washington DC, where he received an elementary economics education from his parents (an economist at the Federal Reserve and an accountant), before focusing his attention on Physics. After attending Swarthmore College, Chaz moved to Colorado for graduate school. After receiving his Ph.D. in physics, he began work at NREL. He and his wife, Jennifer Simpson, hope to make a better world for their 2 year old son, Martin.

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