

## The Moral Case for Fossil Fuels

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The best-selling book <u>The Moral Case for Fossil Fuels</u> was first published November 27, 2014 by Penguin. The author, Alex Epstein, took a BA in Philosophy from Duke University in 2002. He is the President of the <u>Center for Industrial Progress</u>, a former fellow of the Ayn Rand Institute and an adjunct scholar at the Cato Institute. He was also named as one of the top 10 in Rolling Stone's 2013 "<u>Global Warming Denier Elite</u>." High praise indeed! He was fourth on the list.

Epstein presents a very well written discussion of the climate change debate. He destroys the 97% consensus myth, explains that the carbon dioxide greenhouse effect decreases logarithmically with concentration and shows that the climate computer models used to compute man's influence on climate have never successfully predicted anything. He also shows that global warming has not increased extreme weather of any kind and that the dangers from extreme weather are less today than at any time in man's history largely due to fossil fuels. He discusses Craig Idso's pioneering research proving that increasing carbon dioxide acts as a powerful fertilizer for many plants. But readers of this review know these facts, so we will focus on his discussion of the merits of fossil fuels. He is a good writer and has superhuman skills at laying out a compelling logical argument. He would have put Daniel Webster and Clarence Darrow to shame. I highly recommend the book.

According to ExxonMobil's 2016 report, in 2014 fossil fuels produced 82% of the energy in the world. Fossil fuels have produced more than 80% of the energy used in the US for over 100 years according to the EIA. They predict that in 2040 fossil fuels will still produce 78% of the world's energy. Oil will grow at a 0.7% annual rate and natural gas will grow 1.6% per year. Coal will slightly decline. Yet, many in society think fossil fuels are bad for us and the world.

## Global fuel demand in 2040 – projections Quadrillion BTUs

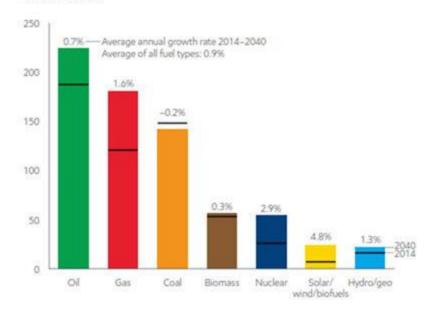


Figure 1: Energy demand in 2014 and 2040, by source

The book challenges this idea that fossil fuels have a negative effect on society. It is a fascinating, fact filled and well-reasoned discussion of the impact fossil fuels have had on our world since they were introduced on a mass scale over 120 years ago. There are 7 billion people on the Earth today and we are better fed, live better and longer than nearly every one of the 900 million people who lived in 1800. It is worth remembering that the <u>average life expectancy</u>, at <u>birth</u>, in 1800, in the UK was about 39 years. Epstein argues that with fossil fuels:

"We don't take a safe environment and make it dangerous; we take a dangerous environment and make it far safer."

So what about those that argue against fossil fuels? Fossil fuels are largely responsible for the quality of life we enjoy today, the food we eat, the rapidly falling rate of poverty, our longer life expectancy, lower infant mortality and many other humanitarian benefits. How could someone argue to take away fossil fuels if they valued human life? It seems they value "pristine nature" over human life. Figure 2, below, shows the expected result:



Figure 2

In McKibben's book *The End of Nature*, he argues that we need a 'humbler world' and "Human happiness [should] be of secondary importance." A <u>Los Angeles Times review</u> in 1989 of McKibbon's book calls man a cancer and plague upon the Earth. The author, David Graber, continues:

"McKibben is a biocentrist, and so am I. We are not interested in the utility of a particular species, or free-flowing river, or ecosystem, to mankind. They have intrinsic value, more value—to me—than another human body, or a billion of them. Human happiness, and certainly human fecundity, are not as important as a wild and healthy planet."

Whew! We might need to report him to the Department of Homeland Security. This is the precise opposite of Epstein's priority of humanity first. Thus, to effectively debate the use of fossil fuels it is important that the debaters state their priorities. Does humanity come first? Or does minimizing human impact on the environment come first? It turns out that this choice makes a huge difference.

The book argues that even if fossil fuels created no waste, including no CO2, if they were even cheaper, if they would last forever, the "Green" movement would still oppose them. The Green movement is not just for a pristine environment untouched by man, they are against human progress. In the 1980's it was thought that controlled fusion of hydrogen into helium was just around the corner. This was pollution free energy. What did the environmental leaders have to say about that?

<u>Jeremy Rifkin</u>: "It's the worst thing that could happen to our planet." Inexhaustible power only gives man an infinite ability to exhaust the planet's resources, to destroy its fragile balance.

<u>Paul Ehrlich</u>: Developing fusion for human beings would be "like giving a machine gun to an idiot child."

<u>Amory Lovins</u>: "It would be little short of disastrous for us to discover a source of clean, cheap, abundant energy, because of what we might do with it."

This "idiot child" would like an inexhaustible, clean source of power. It does often seem that radical environmentalists think everyone else is an "idiot child." Prince Phillip, the former head of the World Wildlife Fund wanted to be <u>reincarnated as a deadly virus</u> in order to cure overpopulation.

Keeping the air, water and land as clean as possible is a benefit for man and the environment. But, fossil fuels can and do help keep our environment clean. Ask anyone in London (or New York for that matter) in 1894, wading through the horse and human manure in the streets at the time. Automobiles powered by fossil fuels were seen as a huge benefit for the environment. They had mostly replaced horses by 1912 and London was a much cleaner place for it. Automobiles and coal fired electrical plants do emit toxins and cause air pollution, but because of modern technology the air in the US is cleaner now, according to the EPA, than in 1970. This is despite the fact that we burn much more coal and gasoline than we did then. Eliminating fossil fuels would cause untold death, famine, and disease. Their elimination will not help the environment. As humans, in order to live healthy, long, quality lives we must modify our environment. We have to be careful about it to be sure, but that does not mean we should minimize it. In Epstein's words:

"The relationship between energy and environment is usually considered in a negative way; how can we use the energy that will least "impact the environment"? But we have to be careful; if we're on a human standard of value, we need to have an impact on our environment.

Transforming our environment is how we survive. ... If we're on a human standard, we should be concerned in a negative way only about impacts of energy use that harm our environment from a human perspective ..."

## He continues:

"But we should also assume that energy gives us more ability to improve our environment, to make it healthier and safer for human beings. ... the natural environment is not naturally a healthy, safe place; that's why human beings historically had a life expectancy of thirty."

## Finally:

"Being forced to rely on solar, wind, and biofuels would be a horror beyond anything we can imagine, as a civilization that runs on cheap, plentiful, reliable energy would see its machines dead, its productivity destroyed, its resources disappearing."

Consider, as Mr. Epstein does, that the average human burns at least 1,800 kilocalories of energy a day. The range is from around 1,800 to 8,000 (very intense exercise can burn 12,000 kilocalories in a day) depending upon the level of activity. When we say "calories" of food we are really talking about kilocalories of energy. A 100 Watt light bulb if left on for 32 hours uses 2,000 kilocalories of energy. In the United States in 2011, the average person's daily energy use (according to the EIA) is 216,095 kilocalories (very similar to the value Epstein gives of

186,000). This includes gasoline, electricity and other outside sources of energy. This is between 27 and 120 human beings worth of energy. So, Mr. Epstein makes this point:

"In the past, before modern energy technology, the main way to overcome the problem of human weakness was putting others into a state of servitude or slavery— which meant that only some could prosper, and at the great expense of others. But with machine energy and machine servants, no one has to suffer..."

We are all descended from slaves, the Roman's, English, Vikings, Greeks, Chinese, Indians, Native American Indians, every culture in the past had slaves. Slavery really only disappeared after man learned to build machines that used fossil fuels for power. One of Epstein's themes is "energy is ability."

As Milton Friedman, the famous economist once wrote:

"Industrial progress, mechanical improvement, all of the great wonders of the modern era have meant little to the wealthy. The rich in ancient Greece would have benefited hardly at all from modern plumbing— running servants replaced running water. Television and radio— the patricians of Rome could enjoy the leading musicians and actors in their home, could have the leading artists as domestic retainers. Ready-to-wear clothing, supermarkets— all these and many other modern developments would have added little to their life. They would have welcomed the improvements in transportation and in medicine, but for the rest, the great achievements of western capitalism have redounded primarily to the benefit of the ordinary person. These achievements have made available to the masses conveniences and amenities that were previously the exclusive prerogative of the rich and powerful."

Thus, the poor and middle classes benefit the most from fossil fuels. Is it any wonder that the main proponents of taking them away are the wealthy like Al Gore (2 mansions, \$200M), John Kerry ("5 mansions Kerry") and Leonardo DiCaprio (also 5 mansions)?

There are seven billion people in the world today 1.3 billion of them have no electricity, three billion more do not have adequate access to electricity. For everyone to have the access to electricity that every American enjoys would require four times the electricity we produce today. When one considers that 82% of our energy comes from fossil fuels how can we imagine quadrupling the world's supply of electricity with only intermittent wind and solar?

Regardless of whether climate change is man-made or not, it can be dangerous. Traditionally, drought, extreme temperatures, wildfires and storms caused many deaths. But, climate related deaths worldwide have <u>fallen by 98%</u> in the last eighty years. Further, the data shows that there is a dramatic difference between the heavy fossil fuel users and the light fossil fuels users. You are much safer in an industrialized country than in a developing country. For example, the United States has had zero deaths from drought in the last decade according to the <u>EM-DAT</u> International Disaster Database.

Historically, drought is the number one climate related cause of death. Worldwide it has gone down by <u>99.98%</u> in the last 80 years for many energy related reasons. Drought relief convoys, more food due to modern fossil fueled agriculture, better fossil fueled water wells and water treatment plants make drought a lesser threat. As Epstein says in Chapter 5:

"The popular climate discussion has the issue backward. It looks at man as a destructive force for climate livability, one who makes the climate dangerous because we use fossil fuels. In fact, the truth is the exact opposite; we don't take a safe climate and make it dangerous; we take a dangerous climate and make it safe. High-energy civilization, not climate, is the driver of climate livability. No matter what, climate will always be naturally hazardous— and the key question will always be whether we have the adaptability to handle it ..."

Epstein argues that the idea that we live in an ideal and delicate climate we are about to screw up is silly:

"The sophisticated version of the idea that our climate is naturally safe or ideal says that because man has flourished in the current climatological period, the 10,000-year post—Ice Age stretch known as the Holocene, that is the only global climate we can live in and if there's a risk that fossil fuels will break the "natural" temperature highs of that last 10,000 years, we need to stop using them. "Just like us," says Bill McKibben, "our crops are adapted to the Holocene, the 11,000-year period of climatic stability we're now leaving . . . in the dust." This argument does not reflect reality. First of all, the Holocene is an abstraction; it is not a "climate" anyone lived in; it is a summary of a climate system that contains an incredible variety of climates that individuals lived in. And in practice, we can live in pretty much any of them if we are industrialized and pretty much none of them if we aren't. The open secret of our relationship to climate is how good we are at living in different climates thanks to technology."

Weather and climate change matter to us, but much less than before the age of fossil fuels. Too hot, go into the air conditioned house; too cold, go into the house heated by natural gas. Absent fossil fuels? Best of luck. Mother Nature is not a real mother, it doesn't take care of us. To have a good life we need to transform our environment and we need energy to do that.

I'll close with a quote from <u>Atlas Shrugged</u> by Ayn Rand that Alex Epstein included in the book. In the midst of a violent storm, Hank Reardon is talking to industrialist Francisco d'Anconia in the safety of d'Anconia's house. They are watching the storm through a window:

"You stood here and watched the storm with the greatest pride one can ever feel—because you are able to have summer flowers and half-naked women in your house on a night like this, in demonstration of your victory over that storm. And if it weren't for you, most of those who are here would be left helpless at the mercy of that wind in the middle of some such plain."

Do you wish to go back to nature? Is your goal to minimize your impact on the environment or is your goal to improve the environment? Epstein shows we should not conflate minimizing our impact with improving the environment. Man is not totally depraved and evil as the environmentalists and the Calvinist's believe, we can improve the environment and do good work. The key point is, if we value human life we will value fossil fuels and what they have allowed us to do.