The Moral Case for Fossil Fuels
Guest: Alex Epstein
November 13, 2014

***Alex Epstein is the founder of the Center for Industrial Progress and the author of* The Moral Case for Fossil Fuels.**

WOODS: Let's get into what you mean by the moral case because we do have—you could make a utilitarian case for fossil fuels. You could make various types of cases, but you've chosen to approach this as a moral issue. In what way is it a moral issue?

EPSTEIN: Well, I think ultimately, everything in life is a moral issue in that certain things have positive impacts on human life and certain things have negative impacts on human life, short-term and long-term, and we have different moral estimates of them. I think the justification for calling it *The Moral Case for Fossil Fuels* is a lot based on how we think about fossil fuels today. There are really two views that almost everyone adopts to one degree or another. One is what's called the unnecessary evil view that fossil fuels are an unnecessary evil, that they can be replaced by usually renewables, and that we should get off them very quickly. And then also conservatives will counter, or even oil companies will counter with, no, they're not an unnecessary evil, they are a necessary evil because we can't get off them for a while. So their view is, as well, we should seek to get off them slowly, or as quickly as we can, but if there's a further off expiration date than the environmentalists tell us.

My view is that if you actually look at the relationship between fossil fuel energy, both its benefits and its risks, in a full-context way, it's an unbelievably positive thing that you should want more of just as you would say, well, I would really like more people in the world to have access to antibiotics. You wouldn't say, oh, it's a necessary evil because it has side effects. You'd say, well, someone is welcome to do something better, but as long as this is the best, we want more of the best.

WOODS: I hadn't thought of it that way until I read your book, but I do need to ask right off the bat about the peak oil thesis. I don't see it in here. I don't see an index entry for it, and in the chapter on sustainability, I didn't see it spelled out or identified using that term. The peak oil people would say that somebody like you is too optimistic about the long-term prospects for fossil fuel use. You know the whole thesis that we're past the point at which we're going to

continue to see what we saw previously, which was inexpensive and abundant sources of oil, and they say that production has been declining as compared with the amount of discoveries. What's your response to that?

EPSTEIN: I deal with the issue of peak oil, in a sense, extensively in the book, but I don't focus on that terminology because I think it's a very confusing way to think about the issue of resources. I think that there are two basic things you need to understand about resources, and if you do, then the idea of peak oil is bizarre. One of them is just the standard economic point of substitution, which nobody seems to know in the energy industry, which is that part of what happens is if demand increases relative to supply and the price of something goes up, that both invites competition to produce more oil, which is what we've seen with the shale oil, and it invites competition externally. Of course, competition is always invited in a certain sense, but it's even more of an incentive. So in the economic system with most products, we don't think in terms of: the way we're doing things today, can we sustain that forever? I'm sitting in front of a MacBook Pro. I didn't buy this, and nobody buys this and thinks, well, can we make MacBook Pros for the next billion years, or are we going to get depleted of some of the materials? Well, who knows? Maybe you would get depleted of some of them. Maybe they become too expensive, and you'd do something else, and yet, in energy there's this dogma that gasoline and diesel, and all of these other forms of oil—they are just going to disappear. We're going to have a peak production, and we're going to fall off a cliff. So it's really a non-understanding of the role of the human mind in terms of making ultimately resource allocation decisions which relates to also the second point is also a non-appreciation of the mind in the realm of what I call resource creation, and I think this is a less understood point, and this is made by Julian Simon. It's made by Ayn Rand. It's made by George Reisman in various ways. But this is the idea that—and I'll put it in my own words. That nature doesn't give us much in the way of resources. What we call natural resources aren't naturally resources. So, for example, aluminum: aluminum was not a resource 200 years ago. It's one of the most abundant metals in the ground, but we didn't have the knowledge to know how to turn that raw material into a resource. And it's the same with oil, and it's the same with every variety of oil. So at the beginning you could only get oil from 69 ½ feet. That was the first major oil well in the U.S. Then you could go a little bit deeper. Then you can start to sue high sulfur oil because of certain innovations by Standard Oil. And today, the oil that we get from shale, that really wasn't a resource 20, 30 years ago. So if you get that, you don't think of it as there's a giant pool. There's this, actually, not that giant pool that we've sort of drained half of. We might have used half of our current inventory, but it's more like, no, the world is just a giant ball of raw materials that we can turn into resources, and we haven't even scratched the surface.

WOODS: What would be the harm, though, in diversifying, right? That's the claim that's made, that okay, well, maybe we don't have to go completely off fossil fuels, but why don't we try to make more use of wind and solar power? I asked Robert Bryce this. I feel compelled to ask you this just because this is the sort of thing that college kids face all the time—propagandists on their campus are talking about this kind of issue. What's the pithy response to that?

EPSTEIN: I was going to give an elaborate one.

WOODS: Oh, no, please, do whatever you like, sure.

EPSTEIN: But my response is, yeah, go ahead. I'm more than happy for you to use whatever form of energy you want to buy as long as I don't have to pay for the lunch money and college of the founders' kids, right? And you're welcome to try to sell me energy that I would rather buy than the one that I buy. The interesting thing about both questions that you've asked so far is that there's really just foundational—some things in this book I think are just linked to fossil fuels, and they're very misunderstood about fossil fuels, but these issues are just profound and lack of economic education and ability to think carefully about what it means that we—the why of why we use something. So it's this idea of we all collectively have chosen to use oil for 93% of our transportation, and maybe that's the wrong choice, so let's hold a vote. And, no, I went to the car dealership. I thought: do I need a car, first of all, and then I went there, and then I had certain options, and I chose one that runs on gasoline because it was the most cost-effective for my needs, in the same way that I bought my iPhone 6 in that way, and if that changes in 10 years, terrific. But that will change by people coming up with something better.

It's interesting that what people propose—what they desperately want to work—are the two worst energy technologies of the last 150 years, which are solar and wind. And just in a commonsense way: I live in southern California, I'm looking outside. It's sunny right now, but there are a couple of clouds. Wouldn't that affect the energy? And then there's this thing called night that we run into on a daily basis, which really restricts your ability to get energy from the sun. And then, of course you know the wind doesn't blow all the time. So what I talk about in the book is there's ultimately a moral perspective that's driving us that really isn't focused on human life. It's a more religious perspective that our goal should be to not impact the world around us, and solar and wind are seen as natural—as taking in the wind and sun in a harmonious way with nature, which turns out to be completely false. But in any case, that ideal is what's driving this rather than their actual ability to improve human life, which is very, very low right now.

WOODS: Of course, one of the objections that you're bound to run into, and that you've anticipated in the book, is the issue of climate change and the relationship between fossil fuels and climate change. We'll get into that 97% of scientists statistic in a minute, but you have a unique way of responding to this. You've got a number of responses, but one of them has to do with looking at the annual rate of climate-related deaths today as compared to in the past, and this is a brand new way of situating ourselves and contextualizing this issue, at least brand new to me. Can you talk about that?

EPSTEIN: Yeah, definitely, and this is why the book is called *The Moral Case for Fossil Fuels*. And one issue I raise in the first chapter that I have found very clarifying and that many who read the book find very clarifying is the issue that we need to define what we mean by moral—how we measure moral—what our goal is from the outset. And I am very explicit. I am a humanist. I

believe that human life is the goal—human flourishing, human happiness—and as I put it, human life as a standard of value. So when I am looking at a question—and to be the goal doesn't mean that you are myopically focused on it, but of course, you want to do things like understand ecosystems because we live in them, but ultimately it's not about the mosquitos, even if you needed to save mosquitos, it would be for the sake of human beings. And it's really, really important in that every issue we discuss we're clear about, okay, are we orienting ourselves towards human life, or have we been inadvertently disoriented? Because it turns out there's a movement, and the leading environmentalists, if you look at what they say, and in the case of fossil fuels I document pretty extensively what they say. They say explicitly, no, human life is not the standard of value. The standard of value is human non-impact. Our goal should be to leave nature alone as much as possible, and as Bill McKibben puts it, "human happiness would be of secondary importance" in the kind of world that he wants.

The reason that I am prefacing all the climate stuff with this is that it turns out that most of the confusion about climate is failing to carefully think about things in terms of human life. Now, you get the question, do you believe in climate change? This is a kind of very vague and manipulative question, and what's interesting is that when people assume that if there is any man-made climate change, that that must be a bad thing. That the expectation is if you can demonstrate that we have changed anything in any way, you have hit the rhetorical jackpot. And my view is, wait a second, how have we changed climate? Isn't it possible that we can change it positively or that it would be mild or inconsequential compared to just about every other issue? So for example, especially if we learn in school, hey, CO2 is plant food. Isn't it possible that putting more CO2 in the atmosphere might be a net benefit? I am not saying that this is how it turns out or not. That's not the point. The point is that we assume that it's negative. So we assume that any change we create in our environment must be negative, and we assume that every element that the rest of nature contributes to our environment is positive. I actually call this human racism because we have a bias against our own race. Anything we change is bad. Anything other things change is good.

So if we strip ourselves of that bias, the question to ask is: if we look at the big picture, how are the CO2 emissions impacting human life on their own, and then how are they impacting them in the context of we're getting all this energy? They are a byproduct of getting this energy. And one great statistic to look at just for climate, leaving aside all the other benefits of fossil fuels, is climate-related deaths. I was introduced to this by the writings of Indur Goklany from the Cato Institute—the real source is what's called the International Disaster Database—and we've mined it probably more extensively than anyone has, and you see in the book it's just crazy because since the beginning of these statistics being collected, the numbers just plummet. So we're 98% below where we were in the '30s. And last year was one of the record lows, if not the record low, of climate-related deaths in the world. You're talking 30,000 people compared to millions in the '30s, and that's a much smaller population. So think about it. Less than 30,000 people—this is supposedly the worst year in climate history, and what that points to is they are not looking at it by the standard of human life. They just think it's inherently wrong if we're

putting CO2 in the atmosphere and impacting anything. And we are impacting something. My idea is that, well, in the big picture, this impact is part of something very, very good and we should absolutely keep going.

WOODS: What are examples of climate-related deaths that we had so many of them in the past?

EPSTEIN: Well, it's the whole gamut of things that you hear blamed on—well, they say blamed on climate change. There's a whole discussion about why that's really a manipulative term. But blamed on fossil fuel use, ultimately, but drought, flood, extreme heat, extreme cold. Drought is interesting because drought turns out to be by far the biggest. It's relevant certainly in California this year, where we supposedly have the worst drought in history, and one interesting fact is that the rate of drought has decreased even more quickly than the others—something like 99—drought-related death, excuse me—99.98%. It turns out that all of these climate problems, you can't think of climate danger as just what nature does. Climate danger is a function of interaction between what nature does and what human beings can do. And it turns out that the natural climate is inherently variable, it's inherently volatile, and it's inherently vicious. So that's a constant. So climate is a huge problem that we have to deal with as human beings in any era, whether we have fossil fuels or not, and what energy allows us to do is to master that. So in the case of drought, through technology we're progressively really redefining drought or almost making it nonexistent in many ways, because once you can purify water, which we can't do as well as we want in the future, but to the extent you can, to the extent you can move it, and to the extent you can move crops, drought means, as a friend of mine put it: drought used to mean I die. Now it means the price of strawberries goes up by $1.00.

WOODS: Well, in fact, I think this is largely what you're driving at in your chapter on the energy effect and climate mastery: that the energy that we get from the fossil fuels helps us to cope with various aspects of climate that have plagued human beings for an awfully long time, and so to think of fossil fuels entirely as a negative, that fossil fuels are creating climate change and this and that, and we'll get to climate change in a minute, but it's fossil fuels precisely that allow us to cope with these acts of nature that we have just thought are unstoppable or certainly that their consequences are unstoppable, but it turns out they're not.

EPSTEIN: Yeah, and I like the analogy of antibiotics and disease, although I think the case for fossil fuels is even stronger than that. In the sense of the main problem, the starting point to think about antibiotics is, you have these certain categories of diseases that are going to kill you, and you need a way of dealing with them. So if somebody says, well, the antibiotic will create—what if they create like a 5% disease multiplication, which these kinds of things can do in complex systems. Would you say, well, you shouldn't use antibiotics? And you say, no, let's use this kind of technology both to cure all the natural diseases and then any diseases that emerge as problems as we're trying to solve the first problem, but overall you're going to be much, much better.

And the same thing with climate. The main thing with climate is it's hugely unfavorable by the standard of the kinds of lives we want to live and the rates of survival we want to have. If you want to have a good chance at the kids in your family living, and even the majority of them, which historically is very difficult to do, you want to live with your friends into 30s, 40s, 50s, 60s, this is not something that nature provides for us because it doesn't—if you can think of every environment in terms of resources and threats. The natural climate doesn't provide us enough resources in terms of the reliable weather and the reliable water that can guarantee bumper crop years, and it provides us lots of threats that we can't naturally deal with. So climate is fundamentally a problem to solve, and fossil fuels are an essential part of the cure. That's the baseline before worrying about, well, are we making the natural climate a little bit more volatile? But one thing that you notice is we never hear about climate mastery. It's just this bizarro world where we have the safest climate in history, as anyone from 300 years ago could tell you, but we're terrified of climate in this very theoretical way, which unfortunately has a lot of really bad policy implementation.

WOODS: Alex, you mentioned George Reisman earlier on. I am reasonably certain that Reisman has said that supposing for the sake of argument that the climate change, global warming people are correct, even supposing that. If it would require in effect the dismantling of industrial civilization to reverse it, wouldn't it be a better approach to simply try to figure out, taking all our industrial ingenuity, how we might cope with that? Is that more or less where you come down on this in the hypothetical situation that these people are right?

EPSTEIN: Well, I definitely recommend George Reisman's stuff on this to anyone. I don't know. It's probably at GeorgeReisman.com, but if you just search his name and resources and global warming, and I certainly was influenced a lot by just reading his stuff. I think the most interesting point that he makes for the issues that we're talking about. He does say what you said is that he talks about, look, this is a serious issue. Why not just view it in the same way as if the rest of nature had caused the issue. That is, if this is a natural byproduct of our means of survival and flourishing, then take it as if there's a natural fluctuation in storms. Now, there are—I would qualify this in the sense of—we can talk about climate danger—you do need to investigate these things. So part of what I'm talking about so far is mostly common sense although it's never utilized because we're not taught to focus on the human, and then it's quantitatively not—I researched the different quantities involved and included a lot of them in the book. But you have to investigate. There's a theory of threat, and you know that you're making some change in the system that's not completely trivial. That's important to investigate. And imagine if it was the kind of scenario of, oh, we're becoming like Venus. Yeah, that's like almost someone declared war on you. It's an emergency situation. So we can't rule it out based on first principles. But first principles, so to speak, can tell us that we have to look at the full context of human life, and so if you were talking about labeling this as some sort of mass rights violation, you would have to reach an unbelievably high threshold of danger, which is—what we're seeing is the climate is becoming less dangerous. So it's a non-issue except for maybe some theorists should be keeping an eye on it in case something changes.

WOODS: Can you take on, as you do in the book, this claim that we hear all the time that 97% of scientists say that there's global warming and that human beings are the primary culprits? How do you break that down?

EPSTEIN: Well, can we just go Socrates dialogue right now?

WOODS: Sure.

EPSTEIN: Okay, so what would you say as a person asserting that?

WOODS: Well, I would say that this means that really there is no debate. You're being completely unreasonable if you want to take a contrary position to that of the vast majority of specialists.

EPSTEIN: And so what's the position that's unreasonable for me to take?

WOODS: That either the temperature trends that they're talking about are non-existent, or they are being caused by something other than human activity.

EPSTEIN: Okay, but that's not what I said. That's not what a lot of people said. What I said is I'm against President Obama's and the UN's plans to restrict the vast majority of fossil fuels over time. So what does it have to do with it? How does it prove me wrong to say that the majority of warming has been caused by human beings?

WOODS: It doesn't prove you wrong, but it shows that you have little concern for human welfare, because certainly we need to stop this trend, and we can do it by reducing fossil fuel use. I hate being a UN bureaucrat, by the way. I'm doing this just for you, you know?

EPSTEIN: I appreciate that. I'm just curious what makes you think it's bad, because from my reading of the statistics I've studied fairly extensively, every indicator of human life has been going up as we've been using these fossil fuels.

WOODS: Well, that could be, but we could get to a tipping point at which the benefits no doubt still exist, but they have to be weighed against some catastrophic results in terms of ocean levels and ice and melting and all kinds of concerns of this nature and fantastic cases of storm activity that wouldn't have existed in the absence of this. We have to weigh these things against each other.

EPSTEIN: So I'm just curious. How much warmer have fossil fuels made it?

WOODS: All right, well, in this case they'll say so far not that much, and most of the warming took place before we had such intense use of these fuels, but look at the trend. They would say look at the way it's going or could go, and I know you could come back with, well, what's been going on in the past 15 years, and I guess they've got like four dozen excuses for that.

EPSTEIN: Yeah, it's just interesting because it's, again, this issue of connection to life. What you have is a 0.8 degree Celsius, or like 1.31, 1.4 degree Fahrenheit change over 150 years, and as

you indicated, most of it not—not most of it, but a significant portion of that where we weren't using large amounts of fossil fuels. This is the amount of temperature change that would be imperceptible were it not for the fossil fuel civilization producing the science and technology to have the precision instruments to measure it, and this is viewed as a catastrophe that—it's viewed as a point that if you can establish that we cause the majority of the 0.8 degrees in 150 years, then that is this death blow against fossil fuels, which have in the last 150 years increased life expectancy by decades and made it possible for billions of people to live. It just shows that the operational standard of value for people is not human life. It's human non-impact.

So what they're saying is, see Alex, we have impacted things. And I'm like, whoa, I didn't say we haven't impacted things. Build a building in Arizona, and you have a heat island effect. The center of Arizona is 10 degrees warmer—or Phoenix—than the outskirts. Everything we do impacts things. My question is overall are we doing—is it good or bad? And I think this is really, really good. So I just wanted to bring out the point that people aren't operating on a human standard, and I hope that—because there have been a million books on these subject, and I don't like writing—you're a writer too—I am sure you don't like writing something unless you feel like there's a real problem to be solved, something that's really not known, and one of the things that I thought was not known in this book is how to think about these issues with precision from a human perspective. That's why I'm going back and forth. Now, as a matter of fact, the same lack of precision that leads to this kind of garbage reasoning on the significance of human beings causing a majority of warming, that same caliber of reasoning is at work in coming up with this 97%, which is just bizarrely wrong.

So I go into some of the data about it. Essentially they equate anyone who mentions the term, anyone who doesn't completely attack it, as we agree with it. And the vast majority of these papers do not say over 50%, but then the author takes it as, well, if they say any warming at all, then that's over 50% because maybe they didn't dispute that it was major. It's really remarkably dishonest, and I think to learn about it is quite—if you weren't familiar with the dishonesty—I don't know what the word is, but it's striking in terms of how this bad thinking about standards of value, and then this just pretty much outright dishonesty about what scientists say, enables the administration to just say case closed. Nobody can debate with my executive power to restrict fossil fuels—no evidence, no logic, no positive connection to human life, and yet this sort of scientific certainty, or pseudo-scientific certainty, and you wonder how did eugenics get practiced? How did Lysenko's non-genetics in agriculture get practiced? So this is that kind of methodology—just the butchering of science.

WOODS: Alex, take a minute to address the pollution issue, which would be the other strike against fossil fuels.

EPSTEIN: Yeah, well, one thing I notice the more I look at fossil fuels is that the strikes against them are some of the biggest benefits. So pollution is the issue of environmental quality. How does using fossil fuels impact environmental quality? Ask that to 100 people in the oil industry assuming they've never heard any of my work on this, and you will get at least 90 people who

will say—they will talk about only negative things, and they will try to put them in context a bit. Look, you know, if you're in oil sands in Canada, like, we have fewer tailings ponds than we used to. Or we don't mine. Those other guys mine. And yeah, we're trying to restore all the trees that we had to cut down, and we're trying to use the road less, and that's our environmental impact. And I like to use—and I use this with climate also—is just, okay, go back 300 years ago, before we used fossil fuels. I make up this character Thomas because Thomas Newcomen invented one of the modern steam engines 302 years ago. And it's just you take Thomas, and you take him from his environment back then and bring him to our environment now and say, which is better? And he would look at you like you were asking him an insulting question because obviously this environment is amazing.

Think about it. I had so much trouble getting clean water. Either I had to walk a long distance or the local brook would have bacteria or giardia or something in it, and now, I can just turn on a faucet, and I have clean water as much as I want whenever I want it. And the air—I used to be huddling by wood or have massive indoor air pollution, and now I can go even live in a place near a supposedly bad coal plant, most of the time you can't even notice. How about agriculture, this food you're surrounded by. So environment means surrounded. Our surroundings are so healthy compared to what they ever have been. It's just remarkable, and really, that's made possible by a process of using energy to fuel machines that can then transform the inhospitable environment of nature to a far more hospitable human environment. Fossil fuels, their energies are the ability to use machines to improve our lives, and a huge part of that is transforming environmental threats into either an environmentally neutral state or an environmental resource.

So there are certain like chemicals, for instance, oil which we can—you can take oil, which used to be a nuisance, and turn it into an artificial heart. It's just remarkable how good our environment is, and again, you have the issue of, well, in the process of improving our environment, aren't we adding risks and byproducts. Well, by definition, whenever you do something, you add risks and byproducts that wouldn't exist before. Like, there were no computer problems before there were computers, but there were no computer solutions before there were computers either, and the computer solutions far outweigh the problems. So with fossil fuels, there's much more evidence—there's definitive evidence—that you can have a lot of health hazards if you deal with them the wrong way pollution-wise, and that's why it's important to have laws that protect property rights, and it's important above all, or not above that, but then in conjunction with that to use technology to improve them. But the common approach is just to—is just say, well, if there's a problem with them, let's renounce them, and let's go to this other thing that seems problem-free. And guess what? They used to say that about nuclear, like, oh, well, nuclear is really bad—and that's a whole other discussion and mythology—so let's, I guess, coal is better. Oh, no, coal is evil. Let's go to gas. Oh, no, gas is evil. Let's go to solar or wind. As soon as solar and wind, if they ever become practical, which doesn't seem to be very close, what are the human, non-impact people going to say? They take up too much space. Look at all these toxic chemicals. How are we going to dispose of the stuff?

There’s all these waste lands, that we’ve irreversibly contaminated the land. The solar panels emit sulfur hexafluoride when you make them, and that’s an even more potent greenhouse gas than CO2. So, again, human life as a standard clarifies a shocking number of these issues.