



## Episode 472: Wind and Solar, and Carbon Taxes: The Trouble with Leftist Energy Policy

Guest: Rob Bradley

**WOODS:** I've been talking to Bob Murphy quite a bit lately about show ideas, and I said I want to talk about Bernie Sanders proposals. And one of them has to do with energy and throwing more federal money at wind power and solar power and so on and so forth, is one of his proposals, as is a tax on carbon emissions and so on. I mean, a very conventional leftist approach to energy, really. But all the same, very important to respond to that.

So he said I don't think you've ever had Rob Bradley on your show. I've done over 470 episodes; I've never had you on, so I thought this is the perfect topic to talk about. It's not directly in the news this particular second, so it's not like there's an urgent news hook, but I think Bernie Sanders is an urgent news hook. So let's start with what seems plausible to the average person, that maybe, given the side effects of fossil fuels, it would be better if we could devote more resources to things like wind power and solar power that seem to have no such unpleasant consequences and can generate clean energy for us on a renewable basis. What's wrong with that kind of thinking?

**BRADLEY:** Well, to use an old term that Murray Rothbard used to use, it is a titular fallacy. But it has some superficial appeal, like a lot of planning ideas. You think of wind and solar; you think of free energy. We don't pay to have the wind blow or the sun shine. But the problem is that these are very dilute forms of energy that come in a very dilute flow compared to fossil fuels, which is very concentrated energy from the sun's work over many millions of years. So to take natural wind and solar and to turn it into a usable product – and we're talking about electricity here – requires huge amounts of capital investment, which translates into a lot of steel, a lot of concrete, a lot of land space or roof space, and it ends up being very expensive. So the socialist idea of – or really, the central planning idea of let's transform energy markets, fossil fuels are bad, into this perceived nirvana of natural, renewable energy is quite fallacious. And as a matter of fact, it probably has more negative environmental consequences than using a very dense, storable energy, such as natural gas, coal, and oil.

**WOODS:** All right, let's develop that further. How could that be, when everybody knows the pollution that is caused by burning coal, for example? How could there be anything to compare with that in these other forms of energy?

**BRADLEY:** Well, let's focus on coal, which is the least clean of the three fossil fuels under current technology to generate electricity. You look at emissions from a state of the art coal plant today, and there's extensive regulations today on coal emissions versus the coal plants of several decades ago, let's say early '70s back. And coal is a reformulated, much cleaner form of energy. So controlled coal plants are much cleaner than uncontrolled coal plants. It's not unlike gasoline itself, which has been reformulated, and it's very much an environmental product today compared to uncontrolled levels through the '60s. So coal has gotten a lot cleaner, and with the technological advances, it will become cleaner still. Now there's one emission that's not a pollutant, even though the Supreme Court decided 5-4 some years ago that it was and was subject to the Clean Air Act, and that is carbon dioxide, CO<sub>2</sub>.

**WOODS:** All right, let's come back to the CO<sub>2</sub> in a minute, because I want to treat that separately. I've heard some numbers — I don't expect you to know them off the top of your head — but I know that there are numbers out there that would put in very stark contrast the amount of energy that I can get from solar panels or from wind turbines or whatever as compared to some amount of a fossil fuel, so that it shows, as soon as you hear the statistic, you automatically — it becomes absolutely clear that there is no competition between these sources whatsoever, and it would be impossible, inconceivable to think of replacing fossil fuels on any serious scale with these other forms of energy. What can you tell us about that? I mean, in other words, the case is ridiculous.

**BRADLEY:** Yeah, when you look at the facts of the amount of kilowatt-hours produced by renewable — or non-hydro renewables — versus fossil fuels, you see a stark difference in the footprint, in the amount of land, the amount of steel, concrete, and all the rest of it. And interestingly, this was first noticed in an 1865 book by William Stanley Jevons, a very prominent intellectual at the time, called *The Coal Question*. And he made the link between industrialization and endless energy, i.e., fossil fuels. And he very clearly, renewable by renewable, explained why there was no going back.

And let's say with primitive biomass, the burning of plant and woody matter, which was the number one source of energy other than fossil fuels in his day, that that would require a tremendous amount of land. It would cover the whole island of England, the UK with plants and trees. And so the environmental angle is very interesting here, and that is, the fossil fuels, what you're doing is you're digging deep into the Earth, but if you don't want to do that, then you're having to use a whole lot of the Earth's surface, the green area to get your energy, and it's exactly what you don't want to do from an ecological perspective.

**WOODS:** All right, so let's go to the carbon dioxide thing and talk about this question. Now if you talk about climate change and you are a skeptic, you know what's going to happen to you. You're going to be laughed out of court, you're not entitled to an opinion, and that famous 97% figure is going to be thrown in your face: don't you know 97% of climate scientists disagree with you? That 97% figure, from what I've seen is — David Friedman wrote something on it that was absolutely devastating. There's nothing to that 97% figure. As usual with the Left, their statistics are all phony, whether it's

whatever, 50 million American children are starving to death or whatever, they throw these figures out all the time. Three, four million people are homeless — there's no basis for that. They just made that figure up. Or 150,000 women are dying every year from anorexia, when it's like 85 people total. They make stuff up constantly. And I understand this 97% thing is just in that hallowed tradition of making up figures to try to intimidate people into silence.

**BRADLEY:** Yes, well, we have a consensus today, an alleged consensus on climate change, and one of the arguments I've used against it was we had a very similar consensus that socialism and central planning was the way to have an efficient economy for several decades in academia. And you might know this better than me, but, you know, it might have been as late as the 1970s that Paul Samuelson in his economic textbook, the number one textbook in the country — I think it was 1989 he finally came out and said well, no — or he did say in that textbook that the Russian economy was just fine. So it takes — sometimes you have the intellectual class that is dead wrong.

But regarding the 97%, as climatologist Roy Spencer has noted, he's a member of the 97%, and I would be a member too, because I believe, he believes, most scientists virtually all believe — I guess it's actually 97% — that CO<sub>2</sub> has an enhanced greenhouse effect, but that does not mean that there's a negative externality with increasing atmospheric concentrations in CO<sub>2</sub>. Moderately warmer weather and CO<sub>2</sub> fertilization might result in CO<sub>2</sub> emissions being a net positive externality. I don't think there's any intellectual in the world that can answer that question, whether CO<sub>2</sub> is a positive or a negative externality, and maybe it's a question that can't be answered in the sense that there are so many positives and negatives that you can't compare them between people and places.

But what we do know is that government intervention in the name of correcting this alleged negative externality is all pain and no gain, and the idea of the social cost of carbon and the case for a carbon tax or regulation or cap in trade is very intellectually weak. And Robert Murphy, who you mentioned, has done great work on the social cost of carbon, in talking about how a carbon tax is a loser.

**WOODS:** Yeah, I will link to that on today's show notes page, [TomWoods.com/472](http://TomWoods.com/472). I'll ask Bob what's his best piece on that. But let's say, for the sake of argument, let's say that the global warming/climate change people are correct, that this is happening, there is warming, it is being caused primarily by human activity. Let's say they're right about that.

**BRADLEY:** And I agree with all that. I agree with all that so far.

**WOODS:** So what would be the harm — what exactly is the nature of the harm in saying we need to do something to halt this, and the something that we can do is forcibly limiting the amount of these emissions?

**BRADLEY:** Well, the next step is that it's bad — you know, something can be bad, but it doesn't mean you are going to turn to government for a solution. Theoretically, there's market failure, but practically you know there's government failure too. So the problem has to be so pronounced and so definable that government interventions can be effective. And that's a huge problem, because CO<sub>2</sub> is a global issue. There's a global commons, so to speak, with CO<sub>2</sub> emissions and increasing atmospheric concentrations of CO<sub>2</sub>. So the idea that government can come in and correct this is where things become ludicrous, and even the theoretical attempts to justify it, they have to assume perfect knowledge, in the sense that the knowledge is perfectly understood, the solutions are understood, and you have "an environmental pope," a global, environmental pope to implement the solutions.

So the only way you can make an intellectual case for this is to use a set of assumptions that just don't apply in the real world. So maybe in an ivory tower, you can come up with a case for government intervention in the name of correcting the negative externality of CO<sub>2</sub> emissions, but you just cannot translate that into — or take it to Washington, D.C. or a state capital or any government capital.

**WOODS:** Let me play devil's advocate here. I could imagine an opponent saying well, we certainly did that with regular old air pollution. We came up with a command and control way of approaching that, and the result has been not perfect; it's certainly got a lot of deadweight loss in it; it hasn't been without its costs, but the results are for everyone to see. We have much cleaner air, much cleaner water. Why can't we do with carbon emissions what we did for air and water?

**BRADLEY:** That's a good question, although I think the most fundamental critique of that is carbon dioxide is not like lead and sulfur dioxide and particulate matter and the criteria pollutants. It's something that's completely different. That's why, if you understand the wording and the intention of the Clean Air Act, CO<sub>2</sub> is not among the pollutants. So that's the most important thing. They're trying to define a non-pollutant as a pollutant, because of some indirect effects that it has.

But what really messes everything up from the central planners' point of view with CO<sub>2</sub> control is that it's a global emission and not a regional or local emission. So let's say one country can have very stringent regulations on CO<sub>2</sub>; well, another country might not, and as a matter of fact, there might be so-called leakage, where industry from the highly regulated area moves to the unregulated area and CO<sub>2</sub> emissions actually go up, because in the unregulated area, at least the controls are less in effect.

**WOODS:** So that's an argument for world government. That would be an argument for world government from the Left's point of view.

**BRADLEY:** Yes. You really need a global government. But then again, if there's a global government, how long are they going to be able to enforce a global regulation? And again, we're not dealing with a pollutant in the classic sense.

**WOODS:** Let me ask you an unrelated question, just because I think it's of interest to the audience: a lot of my audience wants to abolish federal agencies left and right — in fact, I would say the whole audience. The Department of Energy sometimes is listed as one of the departments that a libertarian could live without. But can you explain what the Department of Energy does, or what it's supposed to do, and how we would live in its absence?

**BRADLEY:** Well, I think we'd live very well as consumers and cash-savers in its absence. I guess through the Reagan administration there was a lot of talk about abolishing the Department of Energy, and it's something that should be done, but there are some functions of the department that would be transferred to other agencies, such as the military-related activities that deal with energy. But the core of the department is with things that can be privatized, such as strategic petroleum reserves, maybe bring in some money and give some valuable assets to the private sector, sort of a double win. But there's a whole lot of activity that DOE is doing with renewable energy in the national labs that are just pure propaganda machines for the wind and solar industries, and those are easy budget cuts.

Maybe the last thing you would eliminate from the Department of Energy — and by last, I mean I would give it maybe a few more weeks — would be the Energy Information Administration, which compiles a lot of useful statistics, and it's actually done some pretty good work on energy reality and has been a natural pushback to some of the very unrealistic renewable energy schemes that have come out of the political process. But the short answer is, yes, we can eliminate the Department of Energy. Some functions would be transferred regarding national defense, but everything else can go. We'd free up a lot of resources for the productive side of the economy.

**WOODS:** One final thing: you mentioned the strategic petroleum reserve. I've never read anything about it, and my understanding is that this is an innovation following the oil crisis of the 1970s, and the thought was we'll keep some oil off the market for an emergency. In case we're ever in a vice like this ever again and we need energy supplies, we'll have some that has been kept off the market that'll be available. Now of course the amount in reserve is so trivial that it wouldn't really make a big difference anyway, but is your response to this idea that we already have something that rations energy supplies: it's called the price system?

**BRADLEY:** Yeah, I think that's a good answer. The reserve holds, oh, 700 million barrels of oil, and what makes it useful in a supply emergency, at least theoretically, is that the withdrawal can be three to four million barrels a day, so if there's a major cut off, then you could supply this for 60 to 90 days — I'd have to do the math. So theoretically, that's the rationale.

Now, if you look at everything else, you realize that this is just another classic example of the unintended consequences of government intervention or the very predictable consequences. You look at the average cost of a barrel of oil in the reserve, and you take the acquisition cost and add in all the storage and maintenance costs and

adjust it for inflation, you might have \$150 or \$200 barrel of oil in there. There was a lot of buying high. They've had a few sales, but when do you sell this stuff? That's another central planning question.

But basically, the reserve came after the first two oil crises, where we were actually in the gasoline lines, and the reserve was intended for the third wave oil shock, and that's never happened. And the unlearned lesson of the energy crisis, at least from the central planners' point of view, SPR point of view, is that price and allocation controls are what create the gasoline lines and energy crises and not the free market. So the SPR is always a central planning tool, and a lot of us never liked it, because we thought that this would give government an excuse to establish price controls in some sort of emergency, just to say we have a reserve, and if we overshoot, then we'll just withdraw from the reserve. So there's all sorts of good reasons to liquidate the reserve and reduce the central power of the federal government over the oil market.

**WOODS:** Rob, if people want to follow your work and to find out about a free market approach to energy in general, where would you send them online?

**BRADLEY:** There's a blog that I administer — we have a number of different authors, more than 150, as a matter of fact, different free market voices on energy issues — a site called MasterResource.org, "master resource" being the term that Julian Simon used for energy. And we're very much inspired by the Julian Simon worldview, but we have a libertarian slant, so I think there's a lot of good information there. If there's some energy issue that you're interested in, Google the energy term and "master resource," and I think something useful will come up.

**WOODS:** Very good. Well, Rob Bradley, I appreciate your time today. I'm going to direct people to the website you mentioned, MasterResource.org, and I will have a couple other items of interest, including an article of yours on free market energy policy, over at TomWoods.com/472. Thanks so much again.

**BRADLEY:** Great. Good being with you, Tom.