INTERVIEW: LARRY BELL

European Solar and Wind Countries Are 'Ostriches in the Coal Mine'

This is the edited transcript of an interview with Larry Bell, Professor of Space Architecture at the University of Houston. He was interviewed by Paul Gallagher on April 26, 2019.

EIR: Dr. Bell, you recently wrote a review of a book called *Green Tyranny: Exposing the Totalitarian Roots of the Cli*

mate Industrial Complex, by Rupert Darwall, which deals with what's going on in Europe. We know there's a kind of "children's crusade," of demonstrations led by 11-year-olds and 15-year-olds, and not only in the streets but speaking to parliaments, to the British House of Commons—children accusing their parents and grandparents of having denied them any future at all, and ruined the planet and given them only twelve years left to live before the planet becomes uninhabitable; and demanding the "decarbonization" of the economy, demanding green power only-solar and wind only—no eating meat....

On the basis of this book which you have written about, what's been the result in the countries in Europe that have made this big shift to wind and solar power.

Three Fallacies of the 'Climate Crisis'

Prof. Larry Bell: I think there's at least three major issues here.... One has to do with the whole premise that we have a crisis, a climate crisis. And really, look-



EIRNS/Stuart Lewis

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ing at the data, and looking at the absolute refusal of the "climate establishment" to discuss or debate the issue, on the grounds that it's settled, which is not true,—

Another layer of this has to do with what they call renewable energy or "clean energy"—which really boils down to wind and solar, because the climate establishment won't claim hydropower or nuclear; what's surprising is they'll claim biomass as a clean energy source! But the notion that you can populate the surface of the world with just windmills and sunbeams and think you're going to provide reliable or adequate energy, is absolutely preposterous.

The third level is really looking at it from an eco-

nomic standpoint. In terms of those countries that have really bought into it for various reasons—I don't know if they're canaries in the coal mine or ostriches in the coal mine, but they're pretty conspicuous.

The Result of Going Green in Europe

You look at Germany, for example—and this is really taking some data out of Rupert Darwell's book *Green Tyranny*. I recently attended a talk of his, and I found a lot more information in it. Germany shut down its lignite [coal]-burning plants following unification. Of course they needed power, so they installed a gigantic amount of

solar and wind capacity, more solar capacity than any other nation in the world. Combined with wind, they claim they have provided over 37% of their generating capacity. Now, when you talk about "generating capacity," those are wiggle-words. The generating capacity isn't necessarily what you get at all, nor when you want it. It's typically intermittent.

And so, they hyped this up—they typically do,



A wind turbine array in Germany.

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there's huge lobbies behind this—"Well, we're going to get 400,000 jobs," and so on. What came out of it was:

- 40 million of their households saw huge electricity [cost] increases. Over a 9-year period between 2006 and 2015 they saw a 50% increase in their electricity cost.
 - All of business and industry saw a 25% increase.
- Who it really hurts, are the people in the low-income brackets. It's an extremely painful tax, and it comes in the form of the cost of consumption of electricity. And it also comes in the form of subsidizations paid to these so-called "green" utility companies whether we use their electricity or not.
- What are the impacts in terms of having reliable energy? Wind and solar are obviously intermittent. In the United States we have an ancient power grid. And if you put this intermittent power on it, you put these grids—the three major grids—at risk and great, great hazard.

In Germany, up until 2008, they had never had a grid failure, an interruption of their grid. In 2012, four years later, there were 1,000 brownout events in Ger-

many. One year later there were 2,500 brownouts, which means that power was interrupted. Maybe they can get by with it, maybe the hospitals have generators, but what they're doing is destabilizing the grid.

• Look at the Danes. They had the highest capacity of wind production in the world in 2014. The Danes pay four times more for electricity than we do in the U.S. They paid 44 cents per kilowatt hour, in 2014. In Germany, which is second highest, they're paying 33 cents per kilowatt hour. So, the costs are enormous.

EIR: We pay on the order of 11, 12 cents in the United States?

Prof. Bell: Yes. These are non-trivial events....

More Dirty Little Green Secrets

And other dirty little secrets. What they call the "claimed generating capacities." With wind, you might get 10-15% of that, because wind's very intermittent. So in order to balance this out on the grid, you have to have an equal amount of spinning reserve power that's



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Wind turbines in northern Germany.



A solar energy plant in Leipzig, Germany.

immediately available to kick in when the wind isn't blowing or clouds cover the Sun. This is just to keep the grid balanced.

And what is that reserve? By and large, it's coal and natural gas. So, now you've got an amount equal to claimed capacity, of spinning reserve. And it's used in the most inefficient way possible. In order to balance out the grid, you crank up the turbine; you stop the turbine; you crank it up.... You're really using fossil energy, but in the least efficient way possible.

EIR: Many people hear a statistic that 10 or 11% of the power in the United States is already coming from wind and solar. And many people tend to think that means that we're getting 10% of our energy already from wind and solar. You've recently shown that this is simply not true.

Prof. Bell: It's much worse than that. I was preparing for an article, and I thought I knew how much of our energy came from wind and solar. I thought, "I'll check this; it should be pretty simple to check." So I contacted the Energy Information Administration with a simple question: "How much energy do we get, in the United States, from wind and solar?" And the stock answer was, "We get 11% of our electricity"—our *electricity*, mind you—"from renewable sources." "But I didn't ask you that. I asked you how much *energy* (measured in BTUs) we get. I didn't ask you how much *electricity*."

So, I peeled back layers of the onion. We have four sectors of energy: One is the electricity sector; another has to do with transportation; another has to do with

residential [heating and cooling]; another has to do with business and industry.

It breaks down like this: 11% of the electricity we get comes from renewables; 27% of the 11% comes from wind and solar. And I'm winging this now, but I think I'm pretty close to right: Something close to 40% of our energy—actually 37%, goes into the electricity sector. Of that, 11% comes from renewables; but only 27% of those renewables are wind and solar; so, 27% of 11% of 37% of our energy is what we get from wind and solar power.

It ain't very much. It's about 2%. And then you look at the other energy sectors, and you ask, "How much wind and solar goes into the transportation sector?" Well damn near nothing. As you know, that's natural gas and liquid gas. "How much goes into the residential sector?" Damn little. "How much goes into the industrial sector?" Damn little; that's mostly coal and natural gas.

But there's another dirty little secret. When you look at the life-cycle costs of wind and solar—and you can check this in the European experience—the life cycle of a wind turbine on shore is about 14 years. So you've got this incredible investment in all this infrastructure, all this steel that went into building these turbines—a 14-year life cycle. It's worse offshore, because of the sea-water corrosion. And somehow, they're sending these children out saying Bambi's going to be saved if we cover the surface of the planet with sushi machines for birds. It's illiterate.

But the level of misinformation and disinformation—to me, is absolutely egregious. This is so easy to check. No, the ocean rise has not accelerated in the last 100 years. It's still seven inches a century, just like it was before. There's been subsidence and some other events. No, extreme weather has not become more frequent. You just see it more because it makes good drama on television, and everyone's got cell phones, so they can photograph themselves in a windstorm.

Would an Honest Scientist Say, 'I Don't Want to Debate'?

EIR: In terms of what is changing: I got an invitation to an event of the CO₂ Coalition in Washington on

CO₂ Coalition Intervenes in Washington

Princeton physicist Dr. Will Happer, one of the founders of the CO₂ Coalition of scientists, was reportedly scheduled to meet with President Donald Trump in the White House May 1, while the Coalition presented a forum in Washington-enlightening though sparsely attended—on the benefits of rising atmospheric levels of CO, for global food security. Dr. Happer, who did not speak at the forum, was to discuss Trump's idea of a Presidential panel on climate science, according to a report in

the Daily Caller May 1 and another in the Washington Examiner May 2. Dr. Happer is on the staff of the National Security Council.

No confirmation of the Trump/Happer meeting came from either the White House or Dr. Happer, although the Examiner reported that "Friends of Happer, and some advising the formation of the group, say they expect an announcement soon from the panel on its direction and structure."

In the Visitors' Center meeting rooms under the Capitol, Dr. Jacob Rossiter and Dr. Craig Idso of the Coalition presented exhaustive evidence that the small rise in CO₂ atmospheric concentrations in the industrial age has provided extraordinary benefits for the biosphere—specifically, for the growth of plants of every kind from trees to cereals to legumes.

Dr. Idso gave the main presentation; Dr. Rossiter testified on the subject April 30 to the House Government Oversight Subcommittee on Science and Environment. Activists from the neo-medieval children's crusade called the Sunrise Movement had been gathered to shout down Rossiter's testimony, and he was able to give it only after Capitol Police cleared them from the chamber.

Most provocative were Idso's charts and maps demonstrating that the 1982-2011 trend of increas-



Dr. Will Happer

Gage Skidmore

ing gross primary production (GPP) and water use efficiency (WUE) of biomass—including the contribution to these increases of a higher total leaf area index—were in fact global trends affecting even the world's great deserts. The largest percentage in-

> creases in GPP and WUE have actually taken place on the great African/Eurasian desert, only exception being a northern section of the Gobi Desert in northern and northeastern China and southern Mongolia, where both have declined. Gross primary production of biomass has declined in the central African Sahel despite slightly increased water use efficiency—this is the area to be transformed by the Transagua Project.

> Since the development and publication of these fundamental measures by Dr. Sylvan H.

Wittner in 1982, some 10,000 experiments, in both indoor and outdoor environments, have been conducted to test the role of increasing CO₂ concentration in this global trend—and it appeared Dr. Idso might have the data from all of them! These experiments show that more CO,—that is, concentrations testing up to 650 ppm, compared to current conditions of 400 ppm, causes higher plant productivity, increased nutrient acquisition (including from fertilizers), and increased crop yields per unit of irrigation water applied.

This has been shown for cereals, roots and tubers, legumes, leafy vegetables, beans, and fruit bushes, vines, and trees. In addition, the rise already measured since the start of the industrial age, from approximately 330 ppm to 400 ppm, has seen increased tree size all over the world, in addition to the counterdesertification effects noted above.

When EIR raised the proposed Presidential climate science panel at the forum, the much understated Dr. Idso strongly and "absolutely" supported it. "That's how science works," he said. "Make hypotheses, test time. Find out whose are more correct."

The pamphlet, "What Rising CO, Means for Global Food Security," is available from https:// CO2coalition.org

May 1. What they said they were going to discuss, was that carbon dioxide concentrations in the atmosphere have risen slightly over recent decades, but that the effect has been expansion of biomass, of crops and plant life generally, even encroaching on deserts in certain areas.

Prof. Bell: I'm affiliated with them, and I have great respect for that group of people. They're absolutely right. It's not theoretical, you can see it on satellite images. There's been accelerated greening in a lot of areas—carbon dioxide, after all, is plant food. It helps plants retain water. And it's particularly helpful for desert plants because they don't lose as much water and so on. Absolutely, it has that benefit.

This demonization of carbon dioxide is silly. Even the Intergovernmental Panel on Climate Change [IPCC] has admitted they can't predict climate; the models really vali-

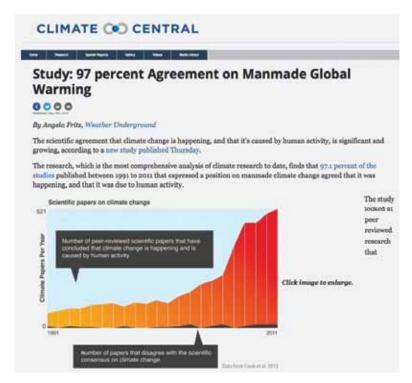
date that, because the models have never comported with observations.

Will Happer, one of the founders of the CO₂ Coalition, is now with the Trump White House, and he's been a strong proponent of having an open discussion, debate on this. Will's a Professor Emeritus at Princeton and an excellent guy, and he's trying to get a discussion going to review. Let's look at the science. Before we spend \$100 trillion or whatever it is, let's look at the science....

EIR: You support the idea of President Trump that's been associated with Dr. Happer's name, to form a national climate science panel, to examine all this evidence?

Prof. Bell: Absolutely! And I would submit that any honest scientist, who's really responsible and honest, would welcome it—rather than saying, "The science is settled." How many times has "settled science" been contested successfully? What honest, competent scientist would say, "I don't want to debate; you guys are making a lot of noise about unfair and untrue science"? Here's an opportunity to set "you guys" right. Why don't they set us right?

It ought to be a piece of cake to debate with us. We'll just take things that they've said, and say, "Well, can



you support this data? Can you support the so-called 97% climate consensus? Let's really look at that."

Is there one real scientist in this whole country who said, "Yeah, that was a really good poll. That really met our standards of polling in science." One organization, one scientist who claims that they would support that? What that poll really was? And how they arrived at that? And whether the poll suggested that there was anything to be alarmed about? Did it really say that 97% of scientists are alarmed that the climate's on fire, and the oceans are rising? No. No. But since it's repeated so often ...

That would be a simple thing to look at. Let's just look at the poll. How did that originate? What organization would really defend that as a scientific poll? It's a simple thing.

Have the oceans risen, has it accelerated over the past 100 years or more? Let's look at that; it's a simple thing. Have there been more extreme weather conditions over the past century? That's an easy thing to check.

How good have the climate models been, in actually predicting it? The IPCC actually acknowledged, themselves, that the climate can't be predicted. They said they couldn't. And how do you arrive at climate sensitivity? And why don't you mention the fact that carbon dioxide increases—has a reverse logarithmic

effect; in other words, each molecule has half the absorption effect [of reflected sunlight] of the previous one. They don't stack up and get worse. That's a simple thing to explain to the public, that it's not linear, it's reverse logarithmic—200 parts per million [ppm] is not twice the impact of 100 ppm, and 800 ppm isn't the double of 400 ppm.

And to me the egregious thing is, even when they know better, reputable science organizations won't stand up and say, "You misquoted what we said. You exaggerated what we said." Instead they complacently sit back and let the media terrify the public. that polar bears are dying—and actually they've probably never done

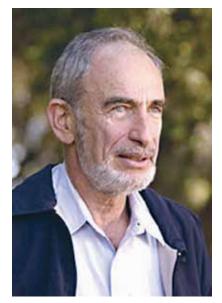
better, probably—that icebergs are melting. Antarctica is gaining ice mass now, not losing it. The Arctic goes though cycles, everybody knows that—the North Atlantic Oscillation—and so forth. So why won't they simply come up and say, "We never said the Earth was going to end!"

If I sound like I'm agitated, I am offended by disreputable representations of alarmism that have no basis in fact, and pollute young people's minds, terrify people, and use polar bears as poster children for how

your SUV is killing the climate.

Anti-Human Eugenics is Now Anti-Human Ecology

EIR: A British "climate scientist" named Kevin Anderson who has been travelling around with Greta Thunberg, the child star of the "children's crusade" in Europe, says that the population that the Earth can support is really only 500 million people. Lyndon LaRouche's EIR published a Special Report in 2015 titled, Global Warming is Population Control, Not Science. It focused on the British Royal Family, and on the idea that the "ecology" movement, so-called, actually emerged from a retool-



Paul Ehrlich

Thomas Malthus, full circle in Europe again, where the Earth can't be sustained because we're going to run out of energy and resources and so on. And it goes back to Paul Ehrlich's book, The Population Bomb: Population Control, or Race to Oblivion?

ing of the eugenics movement after

World War II—where eugenics, the

"culling of the human herd," was

turned into ecology, becoming the

reason why the human herd had to be

Prof. Bell: Well, this goes back to

and others, where the "solution" is, we're going to have to cut back population

culled.

When countries start to become prosperous, they start having fewer children. You look at agriculture when it took so many people just to support a farm. Then machines came along, and there was suddenly no longer a need for twenty people. So if you're really concerned about population, raise people out of poverty! And you raise people out of poverty, in large part, through energy! And also, not a bad idea to have some of that carbon dioxide around so you can grow some plants to feed those farting cows that you're so worried about, to provide milk for these

The DDT ban! How many million people have died because of the bad science surrounding DDT? A village in Africa can get money from the World Bank to build a windmill; but they can't develop their own coal. So they cook with animal dung. And they don't have DDT. And they're dving of lung disease, and the ones that are most vulnerable are the elderly and the children. So we'll give them mosquito nets. It's just egregious! In the name of saving the climate. And they commandeer these words. like "ecology." Nice words, of course. Now it's "global warm-



Greta Thunberg

ing"; now it's "climate change," and "carbon-neutral."

And rational, conservative people are now talking about a carbon tax. Why would you have a regressive tax on energy that's most impactful on the people who are most impacted by price increases? Everything requires energy.

What Should U.S. Energy Policy Be?

EIR: What should United States energy policy be, in your view?

Prof. Bell: First things first. Let's get the "climate" thing, let's open that up, and let's have a real scientific discussion, and separate it from energy—or at least define what relationship it has, if any, to energy. When talking about energy, commandeering terms like "climate pollution,"— carbon dioxide now is a pollutant; plant food is a pollutant, somehow. No, a pollutant is things that you can remove from coal and other sources—the particulates, the stuff that you really don't want, the sulfur dioxide, the smoke, the particles, stuff that volcanos erupt. What does that do? It causes cooling, but I wouldn't put a lot of soot into the environment

for the sake of cooling the planet. We talk about clean coal. Clean coal isn't scrubbing carbon dioxide, it's cleaning stuff that *all* of us want to have scrubbed. And it's easily done with scrubbers, and we're doing it....

Let me say one other thing. I know Lyndon La-Rouche, and there's been a lot of interest in fusion.... Very broadly, of course we need to look at new energy sources. And with regard to space, I don't believe we're *ever* going to go to the Moon or Mars without nuclear power, for the same reason we can't do without it on Earth. We can't live on sunbeams; we can't develop mining operations and whatever else we're going to do on the Moon or Mars without nuclear power. So we need to do that.

Maybe space can be a test bed for some of this, since certainly we're going to need it. Whether it's thorium reactors, or—we haven't invested in new energy technology now for, what, half a century, practically? I'm not an expert on fusion. Jack Schmidt's a good friend of mine [astronaut Harrison Schmidt—ed.], and I know he's really passionate about it, Helium-3. I look at fusion as something that's always ten years off. Nevertheless, we should look at these things.

