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How Europe's Economy Is Being Devastated By Global Warming Orthodoxy

By: [Jim Powell](#) – September 19, 2013

Many Europeans complain about their high energy costs, largely due to their increasing dependence on renewables — the most costly energy sources. But European political parties as well as a majority of people still want government to promote costly options, especially wind and solar power.

This is killing European economies. Electricity costs in Europe are more than double the cost of electricity in the U.S. High electricity costs make it difficult for businesses to operate if they need a lot of electricity. Their cost of electricity is high, and they might not be able to pass it on to consumers when consumers are free to patronize businesses operating where electricity costs are much lower. Many businesses under pressure are likely move to a lower-cost location, and jobs will go with them. Antonio Tajani, European Commissioner for Industry and Entrepreneurship, warned: “We face a systemic industrial massacre.”

The Germans probably have done more than anyone else to promote high-cost wind and solar power. Other types of renewable energy, like hydropower and geothermal power, usually are limited to a small number of suitable sites. The Germans want to have renewables account for 80 percent of their electricity. Their experience illustrates consequences of such a policy.

The most obvious consequence is lots of subsidies and taxes. The German government has arranged for renewable energy producers to sell the power grid their electricity at more than 6 times the wholesale electricity market rate. *Nature* reported that in 2012 renewable energy producers “cashed in an estimated €20 billion for electricity worth a mere €3 billion.” Counting the costs of electricity from all sources, the Institute for Energy Research reported that “Germans pay 34 cents a kilowatt hour compared to an average of 12 cents in the United States).”

Big gap between low U.S. energy costs and high European energy costs

Americans, of course, benefit from the fracking revolution, despite President Obama’s efforts to discourage it. Fracking is responsible for natural gas prices that are one-third to one-quarter of what Europeans pay for Russian gas. As we know, fracking has boosted oil production in America, too. Since 2005, U.S. electricity rates have remained substantially the same, while European electricity rates have jumped about 40 percent. The expansion of pipelines from Canada, along existing permitted routes, will make it possible to tap larger continental reserves, even if Obama continues to block or severely restrict

the Keystone pipeline. Cheap, reliable American energy helps cover sins like the world's highest corporate income taxes. By contrast, in Europe mere talk about fracking can be enough to set off riots.

The Boston Consulting Group affirmed that electricity is one of the biggest factors that determine manufacturing costs. The cost of U.S. natural gas has come down by half since 2005, and more and more utilities are switching to natural gas, so the outlook is for U.S. electricity rates to remain steady or decline further, whereas European electricity costs seem likely to go higher as more wind turbines and solar panels are installed.

Because crude oil costs less in the U.S. than in Europe, feedstocks are cheaper for companies manufacturing plastics, pharmaceuticals, industrial chemicals and other products. Neither wind nor solar power produce feedstocks. IHS, an international market research firm, projects that by 2020 U.S. chemical production will double, but European chemical production could fall by about a third.

That sucking sound of European business going to the US

The Association of German Chambers of Industry and Commerce (DIHK) reported that its surveys indicated many German business executives would rather move operations to the US than remain handicapped by high European electricity costs as they try to remain competitive in world markets. DIHK Chief Executive Martin Wansleben acknowledged that "The U.S. has become much more attractive to companies than Europe."

It's no wonder more European companies are opening or expanding facilities in the U.S., and more U.S. multi-nationals are shifting overseas operations back home:

- Airbus is building an aircraft assembly plant in Mobile, Alabama. It will produce A320 jets for the American market. *Der Spiegel* noted that Airbus "could save on manufacturing costs compared to its plants in Hamburg, Germany, and Toulouse, France."
- Siemens, a German multi-national engineering and electronics company, is making turbines for fossil fuel power plants in Charlotte, North Carolina.
- BASF, the German chemical company, has opened a \$33 million facility expansion in Research Triangle Park, North Carolina.
- Michelin, the French tire producer, is developing a \$750 million facility in Greenville, South Carolina.
- BMZ GmbH, a German company, opened its U.S. facility in Virginia Beach, Virginia for research, development, assembly and distribution of lithium ion rechargeable batteries.
- SO.F.TER Group, an Italian plastics compounding company, is building a new plant in Lebanon, Tennessee.
- Prufrex Innovative Power Products, a German producer of digital ignition systems and electronic control units, is spending \$7.3 million to build a manufacturing plant in Virginia Beach, Virginia.

- Thomas Magnete GmbH provides engineering services and hydraulic equipment for the automobile, agricultural and construction industries, and it will be opening a manufacturing facility in Brookfield, Wisconsin.
- Wacker Polysilicon, which makes hyper-pure poly-crystalline silicon, is opening a \$5 million pilot plant and training center in Chattanooga, Tennessee.
- Kayser Automotive, a German producer of metal and plastic components for cars, will build a \$1.5 million manufacturing facility in Fulton, Kentucky.
- British-based Rolls Royce decided against expanding a plant in the U.K. and instead built a plant in Prince George County, Virginia for producing engine parts.
- The Kúbler Group, a German manufacturer of motion sensors, opened a U.S. production facility in Charlotte, North Carolina.
- The Austrian steelmaker Voestalpine AG is building a \$715 million plant near Corpus Christi, Texas.
- Royal Dutch Shell, headquartered in the Netherlands, announced it would build a multi-billion dollar petrochemical plant in Pennsylvania.
- Dow Chemical closed facilities in Belgium, the Netherlands, Spain and the U.K., while opening a plant in Texas.

European taxpayers soaked to subsidize high-cost wind and solar power

The German government tried to stem the outflow of investment capital and jobs by making electricity available to aluminum, chemicals, steel and other big energy-intensive German companies at subsidized low rates. Naturally, many more companies began lobbying for those subsidized low rates, and the government expanded eligibility by changing the official definition of “energy-intensive” from those using more than 10 gigawatt-hours annually to those using more than 1 gigawatt-hour annually. Some retail chains, for instance, qualified by adding up energy consumed by all their stores for lighting, heating and air-conditioning. The soaring cost of subsidies was paid by a special tax on German consumers and on businesses too small to qualify for subsidized low rates.

There were howls about unfairness from German consumers and small business people as well as foreign companies competing with German companies that benefited from subsidized low rates. Complaints were filed with the European Commission, and European Energy Commissioner Gúnther Oettinger declared the subsidies were unacceptable. While renewables might make many people feel good, it seems nobody wants to pay the high costs, and they cause ill will all around.

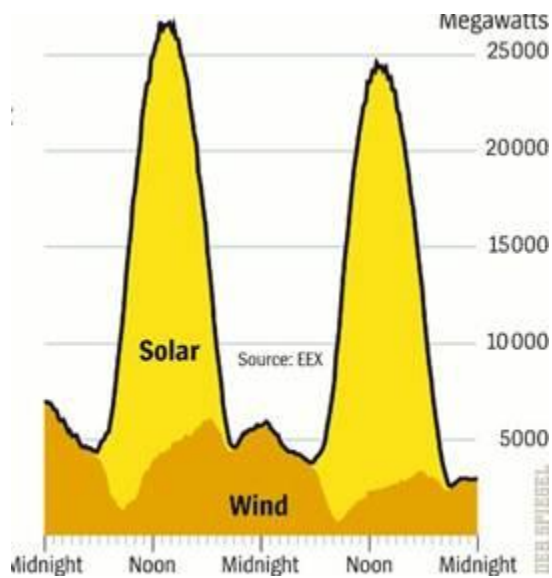
If, as seems likely, the European Commission strikes down Germany’s subsidized electricity rates, German businesses will be hit hard. German Chancellor Angela Merkel has acknowledged that subsidies will have to be cut. Sharply higher electricity costs could accelerate the de-industrialization of

Germany, knocking Europe's strongest economy into a depression.

This would make it difficult if not impossible for Germany to provide financial assistance for spendthrift European governments during the next debt crisis. The high cost of electricity makes it harder for the economies to function and for European governments to make payments on debt.

Why wind and solar power are so costly

Wind and solar power are costly because they're intermittent. The amount of wind and sunlight often vary considerably from one hour to the next. Sometimes the wind doesn't blow, and the sun doesn't shine (especially at night). Many wind turbines are reported to generate power only about one-third of the time. According to the London *Telegraph*, output from renewables averages about 17 percent of capacity in Germany and 25 percent of capacity in the U.K.



The chart above shows common daily spikes of intermittent power from solar panels and wind turbines in Germany, making it difficult to maintain consistent power. (Photo Source: Der Spiegel)

Consequently, maintaining consistent power requires back-up from fossil fuel power systems. The general policy is that fossil fuel power isn't used if enough power is available from renewables, but this means turning a fossil fuel power plant on and off a lot which is very costly. The Dutch and Poles have liked getting free German electricity when the wind blows and the sun shines, but apparently they have complained about having to pay the cost of maintaining back-up fossil fuel power.

In addition, offshore wind farms – where winds tend to be steadier — cost between 200 percent and 300 percent more to build than land-based wind farms, and they cost more to maintain. The most bizarre case involves an offshore German wind farm about nine miles from the North Sea Island of Borkum, where diesel engines make the blades spin. Financial support for this wind farm collapsed after it was built but before it was connected to the power grid. Investors lost confidence because of soaring costs, and apparently there weren't enough government subsidies. The utility, Offshore Windpark

Riffgat, was concerned that if the turbines remained stationary, there would have been a build-up of rust because of exposure to salt water. The idea was that if the turbines were kept moving, they might prevent rust from building up, and someday subsidies might be available to finish the project. Thus, the need for diesel engines.

Solar power is the least efficient renewable energy technology. It consumes half the subsidies Germany has spent on renewables, while producing only 20 percent of the electricity from renewables. The German Physical Society reported, "Photovoltaics are fundamentally incapable of replacing any other type of power plant." Solar power, one might add, isn't well-suited for the Germany's temperate climate that includes many cloudy days.

Why renewables cause costly problems for power grids and energy users

As renewables account for a higher percentage of total energy output in Europe, it becomes more difficult to maintain consistent power. The Institute for Energy Research warned that "The [German] government's transition to these intermittent green energy technologies is causing havoc with its electric grid and that of its neighbors—countries that are now building switches to turn off their connection with Germany at their borders. The intermittent power is causing destabilization of the electric grids causing potential blackouts, weakening voltage and causing damage to industrial equipment."

That's not all. According to the Institute, "More than one third of Germany's wind turbines are located in the eastern part of the nation where this large concentration of generating capacity regularly overloads the region's power grid, threatening blackouts. In some extreme cases, the region produces *three to four times the total amount of electricity actually being consumed*, placing a strain on the eastern German grid. System engineers have to intervene every other day to maintain network stability."

Der Spiegel reported that for "high-performance computers, outages lasting only a millisecond can trigger system failures. For example, at 3 AM on a Wednesday machines suddenly ground to a halt at Hydro Aluminum in Hamburg. The rolling mill's highly sensitive monitor stopped production so abruptly that the aluminum belts snagged. They hit the machines and destroyed part of the mill."

More industrial companies are going off Germany's power grid. They're having to spend money on batteries as well as generators to avoid problems caused or aggravated by intermittent renewable power sources. Such problems must make some executives wonder how much longer they can afford to operate in Europe.

About 8 percent of German electricity production comes from wind and 5.3 percent from solar. By contrast, in the U.S., about 3.5 percent of electricity production comes from wind and 0.1 percent from solar. So businesses and consumers in the U.S. benefit from much less exposure to such high-cost electricity sources.

Europeans find themselves stuck with it, because of Green Party politicians from various European countries who began coordinating their efforts for bigger government during the late 1970s. The European Federation of Green Parties was established in 1993.

In 2011, after the catastrophic meltdown of Japan's Fukushima nuclear power plant, Chancellor Merkel persuaded the Bundestag – Germany's legislature – to pass a law for phasing out all 17 of Germany's nuclear reactors. The Fukushima meltdown was caused by an earthquake and a tsunami. Germany doesn't face such serious risks. Its most seismic areas are in the Rhine Rift Valley and the northern edge of the Alps. Eight reactors – providing about a fifth of Germany's electrical power – were closed immediately, and the rest are to go by 2022. Germany also aimed to slash coal-generated power and aggressively expand wind and solar power. "We want to reach the age of renewable energy as fast as possible," Merkel declared.

Almost overnight, Germany switched from being an energy exporter to being an energy importer. Ironically, although German politicians are avowed foes of nuclear power, the government has been importing nuclear power from France (which gets about 80 percent of its power from nuclear plants) and from the Czech Republic (about a third of its power from nuclear plants that have had problems). In addition, Germany has been importing energy from Poland, produced in old coal-fired plants. Also, Austria imports nuclear power from the Czech Republic to pump water uphill, then lets it flow downhill through turbines, generating hydropower for Germany.

Should your government promote noisy 40-story high wind turbines in your neighborhood?

Undermining European economies is bad enough, but there's worse to come. Subsidized wind power and solar power systems disfigure the landscape. Because they're so inefficient, both wind turbines and solar panels require tremendous amounts of space. Germany's largest solar facility, Lieberose Solar Park, covers almost 2 million square feet of ground with solar panels. Germany's largest onshore wind farm – with more than 80 turbines spread across the landscape – is in Ribbeck, a town near Berlin.

Sometimes it seems there are wind towers everywhere you look, because they must be very tall to rise above the earth's surface where winds are erratic and reach heights where winds are likely to be steadier. Wind towers can be almost 600 feet high – approximately the equivalent of a 40-story building. Imagine something like that in your neighborhood! The blades are big, too: some as long as a football field and weighing perhaps 30 tons.

"With the prime coastal locations already taken," *Der Spiegel* reported, "operators are increasingly turning to areas further inland. Flat-bed trucks laden with tower segments make their way slowly across boggy fields. Cranes crawl up narrow forest paths to set up outsized wind turbines on the tops of mountains. Plans call for some 60,000 new turbines to be erected in Germany – and completely alter its appearance." Germany currently has more than 22,000 wind turbines, so you ain't seen nothing yet. Would Americans ever be tempted to go for something like this, subsidized and promoted by the government?

A single German state – Brandenburg – has more than 3,100 of these things all over the place. You wouldn't want to find that there are plans to build one or more near you, because they're noisy. One German, who lives about a fifth of a mile from a wind turbine, was quoted as saying "It whirrs and hisses, and then it drones like an airplane about to take off." There have been lawsuits about wind turbine noise, and in at least one case the operator had to set the turbines at a slower speed between 10 PM and 6 AM, which meant generating less electricity and losing more money.

Some doctors have reported patients complaining about how their health suffered after a wind turbine was built near them. For example, Dr. Nina Pierpont, author of [Wind Turbine Syndrome](#), reported in *Counterpunch* that the [symptoms include](#) "(1) Sleep disturbance, (2) Headache, (3) Tinnitus, (4) Ear pressure, (5) Dizziness, (6) Vertigo, (7) Nausea, (8) Visual blurring, (9) Tachycardia, (10) Irritability, (11) Problems with concentration and memory, (12) Panic episodes associated with sensations of internal pulsation or quivering, which arise while awake or asleep. None of these people had experienced these symptoms to any appreciable degree before the turbines became operational. All said their symptoms disappeared rapidly whenever they spent several days away from home. I found a statistically significant correlation between the telltale symptoms and pre-existing motion sensitivity, inner ear damage, and migraine disorder."

You commonly see wind turbines pictured in scenic settings, but there are safety issues. An overheated wind turbine caused a fire that burned an estimated 220 acres. J.A. Doucette was crushed when he was unloading tower sections from a truck, and one of the sections rolled onto him. Robert Skarski was erecting a small turbine, the tower collapsed, and he fell to his death. Tim McCartney fell from a tower while removing a turbine, and his body was found nearby. Part of a turbine housing blew off, killing Bernhard Saxen. Jens Erik Madsen was electrocuted as he serviced a turbine controller. Mark Ketteling was near the base of a tower when a sharp piece of ice fell down from it and, like a guillotine, cut his body in half. John Donnelly became caught in the turbine machinery, suffered multiple amputations and died. There have been fatal auto accidents where a wind turbine suddenly comes into view, distracting drivers. A 16-year-old boy climbed a tower to remove a broken coupling, and his clothing was caught by a rotating blade, strangling him.

Wind farms kill millions of birds

The number of birds killed by wind turbines is reckoned in the millions around the world. Among the slaughtered species are eagles, hawks, kites, cranes, ducks, swans, geese, gulls, vultures, owls and grouse. Often the area around a wind turbine is littered with severed heads, wings, other bodily parts and lots of torn feathers. Sometimes a bird is hit several times, its body chopped into many pieces. Today's environmental movement provides the curious spectacle of nature lovers promoting a monumental slaughter of species.

To be sure, U.S. wind farms produce plenty of carnage, too. For example, the *Journal of Raptor Research* published a study that showed at least 85 bald eagles have been killed by wind farms in 10 states since 1997. This doesn't count the death toll in Altamont Pass, northern California where about

60 bald eagles are killed annually. The number of dead bald eagles at wind farms in Idaho, Montana and Nevada is also unavailable.

In the U.S., the Bald and Golden Eagle Protection Act (1940), amended in 1962 (16 U.S.C. 668c; 50 CFR 22.3) provides a \$5,000 fine or one year in prison for anyone convicted of killing or wounding a bald eagle. Repeat offenders are subject to a \$10,000 fine and two years in prison.

The Obama administration has exempted politically-connected wind farm operators from fines and prison terms when their turbines kill species that are protected by the Endangered Species Act (1973) and the Migratory Bird Treaty Act (1918) as well as the Bald and Golden Eagle Protection Act.

Is high-cost energy destroying European economies for nothing?

Conceivably it might make sense for government to promote high-cost electricity and cause all the resulting conflicts and dislocations if it's true that (1) carbon dioxide causes global warming, (2) global warming would devastate the earth and (3) promoting renewables would save us from devastation. If one or more of these propositions is false, then the mad pursuit of renewables and the de-industrialization of Europe would be utterly pointless.

As it happens, more and more people are becoming skeptical about global warming. Everyone is aware that there have been significant warming and cooling cycles before human beings appeared on earth. Dinosaurs thrived amidst abundant plant life during warm periods, and dinosaurs became extinct when global temperatures plunged – we're still not sure why they plunged. The Ice Age limited the ability of people to produce food, and human populations were small. They expanded dramatically when global temperatures subsequently rose, glaciers melted, and there was much more land for crops.

If, as far as climate is concerned, the only choices we have are warming and cooling, then warming is better (we're not talking about boiling). Cooling – especially if it means another ice age – makes life far more difficult. More people die from extreme cold than die from extreme heat. Indur M. Goklany, a science and technology analyst in the U.S. Department of the Interior, calls extreme cold “the deadliest natural hazard.”

Since the point has been raised, does CO² cause global warming? Well, if it did, then global warming should always follow higher CO² levels.

Phil Jones, the University of East Anglia (UK) climate guru who wrote embarrassing emails intended to help promote global warming orthodoxy and suppress research by global warming skeptics, [reportedly acknowledged](#) that there hasn't been any global warming since about 1995. Yet CO² levels have gone up. Whatever causes global warming, CO² doesn't appear to be it.

The National Academy of Sciences has admitted – in the most under-stated way possible – that global warming orthodoxy has been wrong. [Look at this](#): “Enormous progress has been made in the past several decades in improving the robustness of climate models, **but more is needed to meet the desires of decision makers who are increasingly relying on the information from climate models.**”

The Committee on a National Strategy for Advancing Climate Modeling was a little more candid, [stressing the need for](#) “**climate models to evolve substantially in order to deliver climate projections at the scale and level of detail [meaning accuracy] desired by decision makers.**”

According to the *Daily Mail*, a leaked report from the United Nations’ Intergovernmental Panel on Climate Change (IPCC) – whose pronouncements have been gospel in global warming circles – acknowledged that “**scientific forecasts of imminent doom were drastically wrong.**” The IPCC probably phrased the point more delicately. When there has been global warming, it has been less than half as much as previously claimed by IPCC experts, which is to say there has been little.

It’s interesting that [a poll](#) suggests weather forecasters generally have been unimpressed by global warming doomsayers who issued dire predictions about what they were sure would happen during the next 20, 50, 100 or more years. Weather forecasters are constantly reminded of all the frequently-changing factors that make it difficult to develop accurate forecasts for the next 5 days. Weather forecasters know that beyond 5 days, accuracy tends to go down dramatically.

In any case, far from being a bad thing, CO² is a good thing. For example, rising CO² levels can act like a fertilizer, stimulating plant growth. *Geophysical Research Letters* [published a study](#) by four Australian scientists who analyzed satellite evidence that foliage increased more than 10 percent during the last three decades. They focused on arid regions rather than, say, temperate forests or tropical jungles, since in arid regions it’s easier to identify the effects of CO² from other factors that affect plant growth. Increased foliage was observed in places like the southwestern U.S., the Australian Outback, the Mideast and Africa. More CO² expands potential land suitable for growing crops and feeding hungry people.

There are many questions for which global warming orthodoxy doesn’t appear to have answers. For example, the National Snow and Ice Data Center reported that during the last 12 months, satellite images showed Arctic Sea ice expanded about 60 percent, from covering 1.32 million square miles in September 2012 to covering 2.35 million square miles in August 2013. This extraordinary expansion of ice occurred despite global warming doomsayers who had predicted that there wouldn’t be any Arctic ice. Incidentally, polar bear populations, said to be falling, appear to be booming. Some scientists wonder if we might be at the beginning of a global cooling trend.

A number of scientists are looking beyond the earth for possible insights about our climate. The National Aeronautics and Space Administration reported finding evidence that Mars is warming: namely, deposits of frozen carbon dioxide have shrunk. Obviously, there haven’t been any coal-fired power plants, internal combustion engines or other human activity on Mars, so it cannot be the cause of warming there.

Other scientists suggest that the sun – the hottest thing in our corner of the universe (about 27 million degrees Fahrenheit at its core) – is probably responsible for global temperature cycles. Sometimes there are bursts of solar particles that damage satellites and electronics on earth. A solar storm knocked out power in a Canadian province. The strongest solar storms occur in 11-year cycles. It’s hard to predict how a solar storm will interact with the earth’s magnetic field and atmosphere. There’s some

speculation that a solar storm might have blown away Mars' atmosphere – we cannot assume that something has always been the way it is now.

During the 1990s, the Danish physicist Henrik Svensmark suggested that solar radiation affects the earth's climate because of the impact on cloud formation. He explained, "All we know about the effect of [carbon dioxide] is based on computer models that predict how climate should be in 50 or 100 years, and these compute models cannot model clouds at all, so they are really poor. It's a well-known fact that clouds are the major uncertainty in any climate model."

CERN, the Swiss-based European Organization for Nuclear Research, is now testing Svensmark's proposed theory. The idea is that cosmic radiation – charged particles from exploding stars — bombard the earth from outer space. This radiation breaks apart the molecules of atmospheric gases, and the resulting particles become nuclei for water droplets to condense and form clouds. These reflect sunlight, cooling the earth. At night, they retain some of the heat that the earth had absorbed during the day. During periods when there are bursts of radiation from the sun, it provides a magnetic shield from much of the cosmic radiation. There tend to be fewer clouds, the earth is warmer during the day, and more of the heat is lost at night. There are cycles of higher and lower levels of solar activity.

The point here is that there are a lot of things we don't understand very well, like the reasons why there have been warming and cooling cycles since the earth began. Scientists aren't sure about many things, like how the molten earth came to have so much water and how life began on earth.

It's quite possible that factors beyond our control – such as solar phenomena – have played a major role in global warming and cooling cycles. We know that the earth tilts on its axis every year. Seasonal warming occurs in the hemisphere tilted toward the sun, and seasonal cooling occurs in the hemisphere tilted away from the sun.

With such factors beyond our control, it would be crazy to adopt energy policies that disrupt the economy and make millions of people worse off, in the vain hope of, say, taming the sun or changing the earth's tilt.

What we probably can do is adapt to climate changes, as living things have adapted to all sorts of challenging circumstances through the ages. Meanwhile, we should unshackle economies and let them grow.