

OPINION

Echols: Germans have interesting model for energy transition

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Energy transition, or Energiewende, as the Germans say, is the topic on everyone's mind in Germany — political or otherwise. This national energy policy has flipped traditional energy regulation on its head, and brings with it many new challenges. It may work in Germany, but I have my doubts about America.

Like us, Germany depends on nuclear power to supply a steady flow of power for the grid. Their 18 reactors ran 24 hours a day and operated without any major incident for many years. But nuclear power has been under scrutiny in Germany since the Russian accident at Chernobyl on April 26, 1986. After Fukushima, they shut eight plants down, with the others set to go offline in 2022. Initially, the Germans were concerned about fallout, but like us, they are addressing the need to develop a long-term storage solution for spent nuclear fuel. Because their clock was ticking on nuclear power, Germany enacted the Electricity Feed Act in 1991. It jump-started the renewables industry, mostly wind power in the north. The feed-in tariff they paid to generators initially was hefty, about 47 euro cents per kilowatt-hour (61 cents/kwh using the current conversion rate), but so was the technology back then. The program yielded some results, but not as much as they hoped.

In 2000, Germany shifted the program into another gear by passing the Renewable Energy Act, finding the formula that motivated the German people to go into a renewable energy frenzy.

The government authorized 20-year contracts with any and all who wanted to deploy renewables and guaranteed any energy they produced would be purchased at a premium price — regardless of whether it was actually needed at that moment or not. Banks then financed these projects, essentially giving homeowners a second mortgage on an energy system that brought in a check every month over and above the mortgage payment. It was a “gold rush,” one German official explained to me. Other European countries tried the tariff, or a quota, but no one has had the success the Germans have enjoyed. This monthly payment earned from the power company for electricity is recovered through “remuneration,” as they say, on your power bill. Every customer pays it, except very large industrial companies. This program has been so well received that now about 25 percent of power is generated with wind and solar — with half on private property. It's what we call distributed generation, except that power companies weren't getting the money to generate it, the people were.

Here is the bad news. This program has become so popular that Germany often has excess energy — but at unpredictable times. The surcharge on consumers' bills continues to grow as more people sign up. In fact, the surcharge is more than the actual cost of the power. To make matters worse, all of these renewables, which the Germans admit are intermittent and dependent on the weather, are wreaking havoc on their grid, and their neighbors. When these surpluses occur, Germany often pays neighboring Poland to take the excess power. That almost-free power impacts the energy market in adjoining countries. And when the wind doesn't blow, they have to buy it back or fire up coal and gas units.

This brings us full circle to the utilities. Under our system in Georgia, the utility is tasked with creating and executing the energy plan — what we call an IRP, or Integrated Resource Plan. It works well for us. The Public Service Commission and interveners like Walmart and Georgia Watch examine the plan, challenge certain aspects of it, and even bring their own

expert witnesses to comment under oath. Then, the five commissioners affirm or change the plan according to what is best for Georgia.

Germans insist they will invent large-scale electricity storage. I believe them, because “necessity is the mother of invention,” and Germans know about high-tech engineering. Already, 25 percent of their energy comes from wind and solar, and they want to be at 50 percent by 2030 and 80 percent by 2050.

To Germany, it appears that America is lagging behind, but I don’t think so. We have some of the cheapest energy in the world, and as one German economic minister confided, “The United States is about to experience massive re-industrialization.” Cheap energy is the secret ingredient for us to get back on our feet and get the economy running again. May God bless both our countries as we travel our own road.

- Tim Echols is the newest commissioner on the Georgia Public Service Commission. He just returned from Germany where he participated in a study trip at the expense of the German government.