The states in the lower Mississippi basin have a lot in common. From Missouri down to Louisiana and Alabama, they all voted for Trump. These states – Mississippi, Alabama, Arkansas, Missouri, and Tennessee – were all part of the Confederacy. (I'm stretching geography a bit by including Alabama, since only the top of the state drains into the Mississippi, but it's a natural pairing with the State of Mississippi.) None of these states has deregulated their electricity or natural gas markets. And, as it turns out, none of them are home to any significant solar or wind. Nevertheless, there are interesting differences between their energy mixes, which can be easily found on Georgetown's database.

To begin with, the use of coal varies widely. Coal is 10% of the energy mix in Mississippi, 27% in Alabama (about the same share as nuclear), 40% in Arkansas and Louisiana, 14% in Louisiana, 40% in Tennessee, and a whopping 78% in Missouri. These numbers don't give any sense of trends. For instance, in Alabama, coal use fell by half from 2005-2015, replaced by natural gas, but the decline in Louisiana was much smaller.

Use of natural gas varies similarly: 70% in Mississippi, 37% in Alabama, 27% in Arkansas (about the same as nuclear), 60% in Louisiana, 12% in Tennessee (but nuclear is about 30%), and 12% in Missouri.

As I said, none of these states makes significant use of solar or wind, with many below 1%. But in 2014, distributed solar rose steeply in Mississippi, Alabama, Arkansas. Louisiana saw some increase that year but a bigger one the following year. Since the baselines were miniscule, however, the 2015 percentages also remained low. Tennessee also saw distributed solar rise in 2014, but unlike the other states, utility-scale solar was also a presence and more or less doubled.

Missouri stands out because 1.2% of its power comes from wind – not much, but well above the other states. Missouri is also a standout because it is the only one of these states with a renewable energy portfolio, adopted by the voters in 2008. The RPS requires 10% renewables by this year. According to the Energy Information Administration, renewables "accounted for 3.4% of Missouri's net electricity generation in 2016; most of that generation came from conventional hydroelectric power, solar, and wind." However, things may be changing. According to a CNBC report in September:

> "A subsidiary of U.S. utility the Ameren Corporation has laid out plans to

> add “at least” 700 megawatts of wind generation by the year 2020.”
>
> “In an announcement on Monday, Ameren Missouri said the scheme would be backed by an investment of around $1 billion and that it would also look to add 100 megawatts of solar generation over the next 10 years.”

Things could also be starting to change in other states. In the last couple of year, for instance, utility-scale solar is beginning to make an appearance in Mississippi. Another arena that I haven’t tried to cover in these state surveys is energy efficiency, an especially appealing option in the South. Arkansas has taken the lead in the region in this regard.

The most interesting thing about this region, however, is the huge diversity in energy mixes. There seem to be some geographic trends. Within the region, natural gas use rises closer to the Gulf, while coal use rises as you go North. That might be due to transportation costs, but that can’t be the whole story. For instance, Illinois is on the opposite side of the river from Missouri, but relies half as heavily on coal (and very heavily on nuclear.) Alabama and Mississippi are neighbors, but Mississippi relies twice as much on natural gas. It’s reasonable to think that politics and the business strategies of particular utilities have something to do with the variation, not just geography.

It’s heartening to see that renewables are beginning to get a small foothold in these states. But so far there has been little indication of a rapid transformation, though one can always hope. It seems likely that any real changes will have to come from a combination of economic pressures and federal intervention.