The *NY Times* ran a <u>story</u> last week about a coal area in Wyoming that is embracing renewable energy as its economic future. Residents of Carbon County, WY, aren't necessarily happy about it but they recognize that the times are changing. As one county commissioner said, "You can stand at the tracks when the train is coming at you, or you can stand at the switch. I chose to stand at the switch." I heard Sen. Joe Manchin (D-W. Va.) talk yesterday, and he's saying similar things.

At the national level, coal use has been dropping quickly, a trend that began earlier but has continued under Trump. Nevertheless, coal still hangs on in many states as a major part of the energy mix. Coal produces much higher emissions per unit of energy than natural gas, let alone solar and wind. We need to take a closer look at these states to see how to rid ourselves of this climate change culprit.

**Where is Coal Still Used?** Not surprisingly, major coal-producing states tend have stuck with coal. The top five coal producers, with the share of coal in their power mix, are as follows: Wyoming, the home of Carbon County (86%), West Virginia (92%), Kentucky (73%), Illinois (27%), and Pennsylvania (17%).

Obviously, it's not entirely a matter of coal production, given the big variations even between states with similar coal outputs. Availability of natural gas may be one factor, not to mention local politics.

Much of the center of the country is also a hot spot. Arkansas, New Mexico, Illinois, Iowa, Michigan, Minnesota, Nebraska, Ohio, and Wisconsin are all around 35-50%. Missouri gets 73% of its power mix from coal, and Indiana is even higher. On the northern edge of this area, North Dakota is a heavy coal user, South Dakota less so.

Then there are a couple of other clusters. In the West, Arizona, Colorado, New Mexico, and Utah are heavy coal users. In the South, Georgia, North Carolina, South Carolina are substantial coal users. Texas, which lies between these clusters, gets about 30% of its power from coal, though the number has been going down. Most of the new power planned for Texas will come from solar.

Of course, there are also big chunks of the country where coal is basically gone: notably including New Jersey up through Maine, and the entire West Coast.

## **Implications for Climate Policy.**

Coal is an environmentally destructive fuel: a prime cause of urban air pollution, acid rain,

and climate change. It also is an increasingly uneconomic fuel in many places. For those reasons, it has steadily lost market share nationally, even under Trump. The question is what to do about those places where it clings on.

Coal plants are increasingly unappealing investments, which utilities cling to in the hope of recouping their investments. For that reasons, coal plants are closing in many places, even those where the state government has no environmental concerns about its use. That process may not be enough to close down the newest and most efficient coal plants.

The federal government can put pressure on them by ramping up air pollution regulations of various kinds along with coal ash rules. In addition, some of the coal-burning states in the middle of the country are part of organized interstate energy markets. The Federal Energy Regulatory Commission can help ensure that coal-fired plants are exposed to the full force of competition from more economical and cleaner power sources. Some of the most heavily coal-reliant states may also need federal help to kick the coal habit, given the number of workers whose jobs will be dislocated by the energy transition.

The transition may be painful for some localities, but it has to be done, and done quickly. There will be an immediate public health benefit, because coal-fired power plants are the prime sources of dangerous particulates and other pollutants. It's also a crucial next step in addressing climate change. As the Biden Administration well understands, it's important to ensure that we don't condemn swathes of the country to poverty with the disappearance of their traditional livelihood.