

Forbes / Energy / #PowerUp

DEC 7, 2017 @ 07:58 AM 2,895

Market Forces Could Snuff Out Coal-Fired Electricity -- Even In Coal Country



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I write about the global energy business. [FULL BIO](#) ✓

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A front-end loader dumps coal at the East Kentucky Power Cooperative's John Sherman Cooper power station near [\[+\]](#)

If coal-fired electricity is to burn out, market forces will be responsible. PPL Corp. said as much in its "climate assessment," noting that coal could comprise just 10% by mid century of its current coal-heavy generation fleet regardless of whether carbon-cutting regulations are in place.

The Allentown-Pa.-based utility has about [8,000 megawatts](#) of generation and much of that is in the heart of Kentucky's coal country, doing business as Louisville Gas & Electric and Kentucky Utilities Co. Of that total, coal accounts for nearly [80%](#). But

PPL has seen the light not just because its shareholders have been pressuring it but also because the free market is encouraging a change in energy strategy: It is now vowing to use more distributed energy and cleaner-burning fuels while also modernizing its grid to improve energy efficiencies.

The expected result? By 2050, CO₂ emissions will be cut by 45%-90%. That will come by switching to natural gas and renewable power, which the utility predicts will be 80% of its fleet. Already, PPL has retired 800 megawatts of coal-fired generation while promising to cut another 272 megawatts.

"Any way we look at it, we expect emissions to decline sharply by 2050," William H. Spence, chief executive of PPL Corporation, said in a [release](#). "And in the long run, that supports efforts to advance a cleaner energy future." That, in turn, would comply with the international goal of keeping temperature increases to no more than 2 degrees Celsius using pre-industrial levels as a baseline.

Interestingly, PPL's initiatives fly in the face of both Senate Majority Leader Mitch McConnell of Kentucky and the entire Trump administration that is trying to rollback the environmental regulations put in place during Obama years. Even more, the White House is now trying to enact rules to prop up older coal-fired power plants. What is happening at PPL, however, is part of a larger trend:

Altogether, the [US Energy Information Administration](#) anticipates 90,000 megawatts of coal-fired generation to be closed in the United States between 2014 and 2040. Already, the U.S. energy-related [carbon dioxide emissions are 12 percent less than 2005 levels](#), mostly because of the portfolio changes made in the electric power sector, it adds. Coal still accounts for [30% of the nation's electricity mix](#) -- down from 52% in 2007 -- while natural gas makes up 34% and renewable are 15%.

As a result, power plant emissions regulated under the Clean Air Act have decreased dramatically, says the [sustainability organization Ceres](#), in a June 2017 report. That includes sulfur dioxide, nitrogen dioxide and carbon dioxide, which the group says its slightly more than 1990 levels. Those emissions peaked in 2007, it adds, but have been falling since then.

Certainly, the newfound supply of shale gas coupled with stricter regulations on coal-fired power plants are causing some of the shift from coal to natural gas. But the falling price of both wind and solar technologies is also encouraging those investments, along with favorable tax laws. At the same time, utilities are getting pressured from all sides to offer better, cheaper and cleaner products.

“A gas plant is much cheaper to build than a coal plant and it is much simpler to run. But if natural gas were still high-priced, we might not have that option,” Charles Bayless, who is the former chief executive of Fortis Inc.'s Tucson Electric Co. and Ameren Corp.'s Illinois Power, in an earlier talk with this writer. “It used to be that utilities would first dispatch coal because it was the cheapest and most reliable fuel. Now, it is most often natural gas.”

The trend will eventually sweep through all of coal country. The [West Virginia University](#) Law School and Downstream [Strategies](#) issued a [report](#) that said West Virginia could cut its carbon emissions by 30 percent by 2030 by taking advantage of its natural gas resources, as well as by using renewable fuels and energy efficiency. The transition is essential, they add, given that coal seams there are more difficult to mine and that state's coal plants are 60-years-old.

The two main utilities doing business in West Virginia, American Electric Power and First Energy Corp., have already begun to retire older coal plants there. And neither company has any plans to build new coal generation, although each is now investing in natural gas and renewables. The signage is clear even in coal dependent regions.

To that end, Wyoming has begun commercial operations at three natural gas plants to replace three coal plants. In Georgia, meanwhile, a quarter of the coal plants are being retired.

The impetus is the free market, which is pushing utilities across the country to change their energy strategies. Indeed, the clean tech economy is marching forward and coal country, too, is falling in line.