## Federal Rules Take Aim At Coal

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Proposed federal rules mean major changes are likely for the coal-fueled Flint Creek power plant in Benton County, and customers could get higher electric bills as a result, utility company and state officials said.

The Environmental Protection Agency last month proposed new standards to decrease power plants' carbon dioxide emissions nationwide by 30 percent below the levels they were in 2005, and to do so by 2030. Climate researchers widely agree burning coal and oil, deforestation and other human activities have released enough of the gas to warm the planet's atmosphere, disrupting weather patterns, ecosystems and agriculture.

"Ninety-seven percent of climate scientists agree that climate-warming trends over the past century are very likely due to human activities, and most of the leading scientific organizations worldwide have issued public statements endorsing this position," according to an ongoing tally compiled by the National Aeronautics and Space Administration.

Arkansas has one of the nation's steepest targets: cutting its power plant emissions by about 45 percent. Coal supplies half the state's power and releases more than three-fourths of the carbon dioxide, according to the Arkansas Department of Environmental Quality.

Flint Creek and the other four coal-fueled power plants in the state would need to become much cleaner, or shut down, if the EPA plan survives its political and legal challenges. Flint Creek has remained in continuous operation, with stops only for maintenance, for 36 years to supply the region's baseload power.

The costs of modifications or less stable power sources would likely be passed on to customers, utility company officials said. Coal is plentiful and the price is stable, while fuel prices for alternatives like natural gas fluctuate.

Advocates for the plan say coal use is not sustainable and switching to other sources would create new jobs and industries with better long-term prospects.

"We're going to reduce carbon, so how do we do it in a way that's smart?" said Glen Hooks, director of the Arkansas Sierra Club. "If we do this right, it's going to have a significant, positive economic impact on Arkansas."

On the whole, local power companies disagree.

"The proposed rules pose significant potential impacts both for the cost and reliability of electricity," said Peter Main, spokesman for the Southwestern Electric Power Co. The company operates Flint Creek and splits its power supply with the Arkansas Electric Cooperative Corp., which includes the area's Ozarks and Carroll cooperatives.

The EPA is accepting public comments on its proposal until October, with a final rule due next June. States don't have to submit plans to meet their targets until 2017. Until then, Arkansas' goal and any plans to meet it are up for debate.

## AGAINST THE CURRENT

The state's carbon picture suggests big changes will be required. Almost every state reduced the yearly amount of carbon emitted between 2005 and 2012, according to the latest EPA estimates. Arkansas went in the opposite direction.

The state released 8 million more tons of carbon dioxide in 2012 than it did in 2005, up more than one-third. The country's number of coal plants fell by 62 in that time, according to the Energy Information Administration. Arkansas added two. No other state had its electricity-related carbon emissions go up so much or so quickly.

"Coal is certainly one of the areas where we could achieve the greatest reductions," said Teresa Marks, director of the Environmental Quality Department, which would enforce the rule. "But that doesn't mean that coal is going away in Arkansas, certainly. We all know coal is not going to go away as an energy source immediately."

The department has begun meeting with utility companies and other stakeholders to get their perspective on the plan and will submit its comments to the EPA, Marks said. The next meeting is planned for Aug. 28 in North Little Rock.

So far it looks like the plan may be too fast, Marks said, and holds Arkansas responsible for the electricity it generates for surrounding states to use.

"Not to say we can't achieve emissions reductions," Marks said. "We certainly can do that. But we need to look at what we can achieve and still maintain reliability and reasonable cost."

Sandra Byrd, spokeswoman for the Arkansas cooperative, said from the company's perspective, very little can be achieved at reasonable costs.

"They're going to be asking us to retire coal plants early," she said. "The only way to replace that baseload generation capacity is with natural gas."

Natural gas plants supply about a sixth of Arkansas' generated power, according to the energy administration. The gas releases about half the carbon of coal, and supplies in the United States

have recently soared because of new mining techniques, including hydraulic fracturing, or "fracking."

All of this makes natural gas an attractive alternative to coal, but price fluctuations are unpredictable, Byrd said. She pointed to last winter, when demand because of cold weather and other factors raised natural gas prices by as much as 7 percent, according to the energy administration.

"This rule completely goes against the idea you should have a diversified fuel supply," Byrd said. "You shouldn't put all your eggs in one basket."

Flint Creek is about 20 years from typical retirement age, according to the energy administration.

Ongoing changes at the plant to meet a separate EPA regulation already are expected to raise rates by about 3 or 4 percent after work finishes in 2016, Main said. Swepco and the cooperative are splitting the \$400 million price of the modifications.

The federal agency ordered coal plants three years ago to cut emissions of pollutants such as mercury, a poisonous metal that can be ingested through local water and fish. The mercury rule will prevent thousands of premature deaths each year, the agency said.

The switch to natural gas, rising demand and the fuel's price volatility could cost much more, Byrd said, raising customer rates from 10 to 30 percent. For a \$70 monthly bill, that'd mean \$7 to \$21 more. Main said nothing is certain until the rules are finalized.

"Swepco and our parent company (American Electric Power) will be working very hard to provide EPA with information to help inform the final rulemaking," he said.

The final rule may end up a compromise between the EPA goal and utility concerns, said Alan Mantooth, an electrical engineer who directs the University of Arkansas' National Center for Reliable Electric Power Transmission.

"Maybe there's a balance there between the 45 percent they're asking for and what we can logically achieve," he said. "If the utilities are indeed held to that number ... then you can bet your bottom dollar that they're going to be putting designs together to figure out how they can do their part."

## **GOOD FOR ARKANSAS?**

Arkansas could benefit from the shift to gas because some natural gas is mined here, according to a recent study from the Center for Strategic and International Studies and the Rhodium Group, two research organizations. Natural gas demand could go up 14 percent between 2020 and 2030 as coal use falls because of the EPA plan, according to the study.

Hooks, the Sierra Club director, dismissed utility warnings about EPA regulations as "predictable." Utilities have an incentive to keep things as they are, he said.

Cleaner electricity could be more expensive, Hooks said. But today's power bills are misleading, because they don't include the cost of droughts, floods, wildfires and other environmental and economic disruptions that are already rising because of climate change, he said.

"Those costs are loaded on the rest of us," Hooks said. In a way, the huge costs of adapting coal plants to new requirements demonstrate coal is too expensive to keep around, he said.

Hooks said states should redirect all of that money toward wind, solar and other renewable energy sources. Doing so could support a "renaissance" of jobs in manufacturing, installation and related industries, he said.

Michele Halsell, managing director of the University of Arkansas' Applied Sustainability Center, agreed.

"You could look at it as a catastrophe, maybe, but you could also look at it as an opportunity to drive costs out of the system," she said of the EPA plan.

Renewable costs have steadily dropped while fossil fuels become costlier to clean up, Halsell said, and the sun and wind are free of charge. The EPA plan sends a clear signal the future will be powered by renewables.

"Utility companies are not the enemy — you want them to be whole," she added.

Studies from the National Resource Defense Council and other clean energy advocacy groups have found Arkansas has enough capacity for wind and solar to provide most of the state's needs.

Whether that will hold true in Northwest Arkansas is unclear. Kansas-based TradeWind Energy considered building a wind farm in Benton County in 2008, but halted the project because of concerns about affecting the local habitat, a spokeswoman said.

The state's renewable energy businesses still see the plan as good news. The Arkansas Advanced Energy Association, which represents 80 biofuel, wind and solar companies, publicly backed the plan last week.

"The reality is it's always good for America when we have a healthier environment and a healthier populace," Hooks said.