

The New York Times<http://nyti.ms/1i1vFJW>GUGU
MBATHA-RAW

ENERGY & ENVIRONMENT

Coal to the Rescue, but Maybe Not Next Winter

By MATTHEW L. WALD MARCH 10, 2014

COLUMBUS, Ohio — When the temperature here dropped into the teens this winter, ice formed on the inside of Ernestine J. Cundiff's windows in the drafty 50-year-old apartment building where she lives. At 81, with diabetes, poor circulation in her legs and both shoulders damaged in separate falls last year, Ms. Cundiff said wearing leggings and fur-lined slippers was not enough to keep her warm, so she took to using an electric space heater in her bedroom.

Then came the electric bill, \$96.75 in January, up about 50 percent from the previous month. That was in addition to a gas bill of \$153.44, up from \$106.12 the month before. "When I opened the bills, I thought I was going to have another heart attack," said Ms. Cundiff, whose only income is the \$1,226 a month she receives from Social Security.

Like many other people this winter, Ms. Cundiff turned to a community service organization. Impact Community Action, a Columbus agency, enrolled her in a state program that holds energy bills to 6 percent of a person's income. Regina Clemons, the director of emergency assistance at Impact, said the group was on track to sign up 9,000 to 10,000 people this winter, compared with about 8,000 last winter.

"We find people who have never ever walked into a community action agency before, looking for help," said Carmen Allen, the community outreach coordinator.

As the end of the harshest winter in recent memory approaches, the bill is coming due for millions of consumers who are not only using more electricity and natural gas but also paying more for whatever they use. And there might not be relief in future winters, as the coal-fired power plants that utilities have relied on to meet the surge in demand are shuttered for environmental reasons.

The sticker shock has been particularly acute in the Northeast, where natural gas supplies have been constrained. But it has spread to other regions of the country, including the Midwest, where utilities have had to draw on more expensive reserves to meet the demand.

In Pennsylvania, Attorney General Kathleen G. Kane said her office had been flooded with complaints from consumers whose utility bills had soared, in some cases tripling. In Rhode Island, the utility National Grid received permission for a 12.1 percent electricity rate increase in January, nearly all of it because of higher prices for the gas used to make electricity.

In New York, Con Edison increased the price of each kilowatt-hour about 16 percent this month compared to last year. And in Ohio, energy retailers will demand higher prices from customers like Ms. Cundiff when annual contracts are renewed.

Underlying the growing concern among consumers and regulators is a second phenomenon that could lead to even bigger price increases: Scores of old coal-fired power plants in the Midwest will close in the next year or so because of federal pollution rules intended to cut emissions of mercury, chlorine and other toxic pollutants. Still others could close because of a separate rule to prevent the damage that cooling water systems inflict on marine life.

For utilities, another frigid winter like this one could lead to a squeeze in supply, making it harder — and much more expensive — to supply power to consumers during periods of peak demand.

Senator Lisa Murkowski of Alaska, the ranking Republican on the Senate Energy Committee, told utility regulators in a speech on Feb. 11 that the recent frigid weather had provided “a glimpse of the challenge that lies ahead.” American Electric Power, which serves Columbus and a vast area of the Midwest, was running 89 percent of the coal plants that it must retire next year, she said.

“That raises a very serious question,” she said. “What happens when that capacity is gone?”

The coal plants are dirty, and expensive compared to natural gas at summertime prices. But coal is far less prone to price jumps or to shortages, and in a cold snap, it looks like a bargain. Without the coal plants, experts agree, prices in the peak periods of winter and summer will be higher, so future periods of cold weather may be even harder on electric bills.

“We are seeing unprecedented amounts of coal units retiring,” said Andrew L. Ott, a senior vice president at PJM Interconnection, the grid operator that covers Pennsylvania, New Jersey and Maryland and has expanded into West Virginia, Ohio and adjacent areas.

“No doubt this industry is in a massive transition,” he said, adding that the change would be accompanied by more price volatility.

PJM recently set a peak record for winter energy use of about 140,000 megawatts. Its summer record is 168,000 megawatts. Plants that use coal, with a combined capacity of about 12,000 megawatts, are retiring. Enough capacity is available, and new gas-fired units are being built, but while gas production has kept up with consumption, pipeline capacity has not.

In some cases, the Environmental Protection Agency has reduced the disruption caused by retirements by delaying deadlines, to give utilities more time to comply with its rules or to get alternate arrangements in place. But American Electric Power executives say that will not be the case this time, because even with a reprieve from Washington, citizens could bring lawsuits under the Clean Air Act that would force the closures.

What’s more, many plants are far along the path to retirement. At Muskingum River, a five-boiler coal plant in Beverly, Ohio, about 100 miles southeast of Columbus, three of the units ran during the so-called polar vortex, supplying power to meet the demand.

But three-quarters of the 400 or so employees the plant had two years ago are gone, and two of the five units need half-million-dollar repairs to run again, an expensive proposition for a plant that is scheduled to close and runs only intermittently.

American Electric Power has stopped hiring at other plants that are scheduled to remain in service, to make space for employees who would like to transfer. Units 1 and 2 at Muskingum River, commissioned in the early 1950s, cannot run anymore because they both need a new lining in the floor of their boilers, at a cost of about \$500,000 each, and there would be no time to recoup the investment. Unit 5, the youngest, commissioned in 1968, was a candidate for continued use, but it would need upgrades to reduce pollution that would cost hundreds of millions of dollars. Lately the plant has run only on very hot or very cold days.

The plants set to be closed will not be replaced by newer, cleaner coal plants, and a number of new gas plants are planned or under construction. The average price of natural gas is too low to let coal compete, and new rules loom for carbon dioxide emissions from new coal plants. And it is not only coal that is disappearing from the mix. Nuclear energy is, as well. Last year the energy company Dominion closed its Kewaunee reactor in Wisconsin, which had been running smoothly and without opposition but could not produce power at a competitive rate in the Midwest electricity market. Another energy supplier, Entergy, announced that it would close Vermont Yankee, a nuclear power station in Vernon, Vt., because the cost of production was higher than the market rate for power. In both cases, the main challenge was natural gas, which has remained cheap apart from the recent price surges.

Marvin Fertel, the president of the Nuclear Energy Institute, the industry's trade association, told Wall Street analysts on Feb. 13 that the gas crunch illustrated the need for diverse sources of energy.

"Risks are lower with diverse portfolios," he said, but the competitive market does not reward diversity. Nor does it reward a coal plant with a supply of fuel that could last weeks in a pile nearby, or a reactor with 18 to 24 months of fuel in its core, he said.

At the Muskingum River coal plant, there was resignation and uncertainty. Muskingum will be "dispositioned," in the new jargon, while other plants, with more antipollution equipment, have been designated "keepers." The plant opened six years before Craig Douglass, 54, was born, and Mr. Douglass, an outage coordinator who has worked there for 33 years, said of the people who built it, "I don't think they ever imagined they'd be running that long."

Mr. Douglass is going to a "keeper" plant. Others are retiring. In the control room one recent afternoon, there was an odd mix of crisp, modern computer screens and control panels that looked as if they had been borrowed from a 1950s science fiction film. Michael Stehly, 55, a supervisor, clearly did not want to operate either.

"I might be the guard at the gate," he said, "who lets the scrap metal trucks in and out."

A version of this article appears in print on March 11, 2014, on page B1 of the New York edition with the headline: Coal to the Rescue, This Time.