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Utilities Turn From Coal to Gas, Raising Risk of Price Increase

By MATTHEW L. WALD

WASHINGTON — Stymied in their plans to build coal-burning power plants, American utilities are turning to natural gas to meet expected growth in demand, risking a new upward spiral in the price of that fuel.

Utility executives say they have little choice. With opposition to coal plants rising across the country — including a statement by three investment banks Monday saying they are wary of financing new ones — the executives see plants fired by natural gas as the only kind that can be constructed quickly and can supply reliable power day and night.

But North American supplies of natural gas will be flat or declining in coming years, according to the Energy Information Administration. The United States already has high natural gas prices, a problem for homeowners and many industries, like chemical and fertilizer producers. Some experts fear a boom in gas demand for electricity generation will send prices even higher.

It has happened before: The price of natural gas tripled in the late 1990s and early in this decade, partly because so many companies built generators to use the fuel. In some places, the power plants became white elephants as higher gas prices made them too expensive to operate, compared with coal plants.

Now, with many coal plants being canceled and demand for electricity rising by 2 percent or so a year, the prospect is that utilities will be forced to build and use a new generation of gas-fired plants regardless of the operating cost — and consumers will bear the burden of higher electricity rates.

“Coal has been removed in many places as an option,” said Art Holland, a vice president of Pace Global Energy Services, a consulting firm in Washington that advises utilities. New nuclear plants are on the drawing board but will take at least a decade. Sun and wind power, though growing, remain a small part of the nation’s electricity mix, and they provide only intermittent power.

“We’re having by default to fall back on gas, as though we learned no lesson from the gas-fired boom,” Mr. Holland said.

A wave of public opposition to coal-burning plants, motivated partly by broad fears about global warming and partly by local aesthetic concerns, is making their construction more difficult. On Monday, Wall Street weighed in: Three big investment banks announced that in deciding whether to make loans for new coal plants, they would calculate the projects' financial viability, taking into account potential future charges for carbon dioxide emissions.

Citigroup, JPMorgan Chase and Morgan Stanley said they had negotiated this policy with seven major utility companies, most of them major coal burners, and two advocacy groups, the Natural Resources Defense Council and Environmental Defense. The policy will not automatically block financing for coal-burning plants, but the banks are expected to query utilities closely about the potential costs before agreeing to finance such plants.

Power generated with natural gas is already sold at a premium. In Florida, for example, where five coal projects have been derailed in the last year, Barry Moline, the executive director of the Florida Municipal Electric Association, looks at Tallahassee's municipal utility as an indicator of the future.

It is nearly 100 percent gas fired, he said, while Gulf Power, to the west, is 70 percent coal. Tallahassee's electricity rates are about 40 percent higher than Gulf Power's.

Companies that have canceled coal plants have two immediate options other than building gas plants. They can work to hold down customer demand, though most would have to do so on a far more ambitious scale than before. Or they can wait to see what happens.

Experts say electricity shortages are a distinct possibility in coming years.

"There's going to be a lot of white knuckles, frankly, as building does not go forward aggressively on any kind of plant, and demand keeps going up," said Ernest J. Moniz, a physics professor at the Massachusetts Institute of Technology and a former under secretary of the Department of Energy.

Government statistics lag too much to have captured the shift toward gas-fired power plants, but anecdotal evidence abounds. Tampa Electric in Florida, Pacificorp in Wyoming and Utah and Southwestern Power Group in Arizona are among the companies planning or studying gas-fired plants.

Coal companies, while acknowledging some high-profile plant cancellations, say they expect continued growth in coal-fired generating capacity, albeit at a more moderate rate. Pace, the consulting firm, recently cut by a third its projection for new coal-fired generating capacity from now to 2025, while doubling its estimate of the amount of gas-fired capacity likely to be built.

“Prior to 2007 there was a buildup, and a momentum for people planning to go in the direction of pulverized coal-fired plants, and during ’07 there was definitely a downturn,” said Ronald J. Ott, the director of coal plant construction at Black & Veatch, an engineering and construction company specializing in electricity projects. Amid concern about coal emissions linked to global warming, he said, his company’s clients have tripled the number of natural gas projects under discussion.

Barry K. Worthington, executive director of the United States Energy Association, a trade group in Washington, said that some coal plants may have been canceled because of fear of carbon dioxide emissions or fear of future carbon taxes, but another factor was a rapid rise in construction costs for power plants.

“The cost of everything has just skyrocketed,” he said. Natural gas plants have less steel and concrete than coal plants and require less labor to build.

Florida Power and Light is a good example of the shift. The company has 4.5 million customers; it is adding about 85,000 a year, and demand from existing customers is rising. Last June, the Florida Public Service Commission killed the company’s plan for a big coal-fired plant near Everglades National Park that would have come into service in 2013 or 2014.

The utility began looking immediately at two sites for solar power and at other renewable options, but could come up with enough of those to replace only a fraction of the power it would have generated at the coal plant. So the company decided to accelerate construction on a long-planned addition to an existing gas plant.

Gas may appear to make sense for individual utilities, said Revis James, the director of the Energy Technology Assessment Center at the Electric Power Research Institute, a utility consortium. The problem will come if many utilities pile into gas-fired electricity generation at once, he said, driving up demand, and prices.

Environmental groups argue that utilities should focus on cutting demand for power, rather than build new capacity.

Meanwhile, some utilities have decided to wait for a clear global-warming policy to emerge from Washington.