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High gas prices hasten UK energy crunch

By Sylvia Pfeifer, Energy Editor

Britain is heading towards an energy supply crunch sooner than expected as many of the country's coal-fired power stations face early closure under European Union environmental regulations.

Eight coal-fired plants are due to close by 2015 as part of efforts to cut harmful emissions but several are set to shut before then as companies rapidly burn through their remaining EU production allowances.

Coal has become the preferred source of electricity generation in recent months as profit margins at gas plants have slumped because of higher prices. Poor returns on gas are discouraging investment in the new plants needed to replace the coal-fired fleet, deepening long-running concern over a looming power supply shortfall towards the end of the decade.

Coal accounted for 43 per cent of generation in January compared with 26 per cent for gas, far more than normal, according to National Grid.

Gas prices in Europe are still heavily linked to oil prices, which have been driven up by political tensions in the Middle East. This is in marked contrast to the US, where the shale gas boom has driven domestic natural gas prices to a 10-year low, making many coal-fired plants uneconomic.

In Britain, however, the so-called “dark spread” – the profit margin made from burning coal and selling the resultant electricity – remains higher than the equivalent “spark spread” for natural gas.

Some 11GW of mainly coal-fired generation is due to close by 2015 under the EU’s Large Combustion Plant Directive. As coal is cheaper at the moment, most of the plants have been pumping at more than 75 per cent capacity, compared with 25 per cent a year ago.

Analysts are now forecasting that most of this capacity will shut in 2013 or 2014 as plants quickly eat up the remaining hours they are permitted to operate before closure. Eon, the German utility, last week announced its 1,940MW Kingsnorth plant in Kent would close in March 2013.

In addition to higher gas prices, coal usage has been encouraged by low prices for burning carbon under the EU’s carbon trading scheme as the eurozone crisis has cut demand. This has created the unintended consequence of helping coal remain competitive.

“The current carbon price of around €10 a tonne [of carbon dioxide emissions] is not enough to bridge the gap between coal and gas producers, even though generators have to buy more carbon credits,” said Peter Atherton, head of utilities research at Citi Investment.

The UK, unlike Germany for example, has enough coal and gas-fired generation to be able to switch between the fossil fuels as prices fluctuate.

Andrew Horstead of Utilyx, the energy consultancy, said Britain was likely to avoid a supply crunch before 2015 because of new gas plants and renewable energy capacity due to come online.

“However, there are risks to security of supply after 2015,” he added. “Although a lot of gas plants are planned, the question is whether the companies will build these given the current situation.”

In addition, to the coal-fired plants due for closure, several of Britain’s ageing nuclear reactors are also approaching the end of their lives. However, industry executives say they are holding back on investment because of the unattractive economics of gas and uncertainty over planned reforms to the UK electricity market.

Mr Atherton said: “There is spare capacity today but the big worry is that the longer we continue with low spark spreads for gas, no new gas plants will be built.

“Combined cycle gas turbine (CCGT) plants are just uninvestable today given the economics. Clean spark spreads are about £1 per MW/hour. You need between £22-£23 per MW/hour for an all-in return on capital,” he added.

Centrica, the owner of British Gas, recently proposed closing two of its CCGT plants.

Volcker Beckers, chief executive of RWE Npower, said the energy market needs regulatory reform but cautioned: “Both customers and investors need far greater clarity. However, I feel less clear about the government’s market reform proposals now than I did a year ago.”

Some in the industry argue that new renewable capacity – including wind and solar – coupled with suppressed demand as a result of economic weakness should mean Britain avoids an energy crunch in the middle of this decade.

But, while the extent and timing of the feared supply shortfall is open to debate, most experts agree the UK is facing a big challenge to meet its energy needs while weaning itself off coal in years to come.

FLAWS SEEN IN EMISSIONS TRADE

When the European Union launched its emissions trading system in 2005, the scheme was expected to discourage the coal-fired power generation responsible for a large portion of greenhouse gas emissions.

Instead, a combination of overly generous allocations of carbon permits, and the impact of the Eurozone crisis, have so far made the system less effective than anticipated.

The ETS sets an overall cap on emissions allowed from the power stations and heavy industries it covers. The emissions are then converted into allowances, each equal to one tonne of C02, which are distributed to the plants.

Companies can emit more than their allocation by buying allowances from the market and if they emit less, they can sell the surplus.

Most heavy industries initially got a large amount of allowances for free and some, including coal power plants, were accused of making windfall gains by passing on the cost of allowances to consumers even though many were free.

A sharp drop in carbon prices amid the eurozone crisis has made it relatively cheap to burn coal, compared to lower-carbon fuels such as gas. Carbon prices, which fell more than 50 per cent in 2011, were well below €6.50 in December and allowances are still trading for less than €8.

The system is due to be tightened from next year, when all allowances for the power sector will be auctioned in most EU countries, rather than distributed free of charge. But analysts expect carbon prices to stay subdued unless the economy improves sharply, meaning coal is often likely to be as cheap to burn as gas.