## Germany's wind power chaos is a warning to us

n Friday September 14, just before 10am, Britain's 3,500 wind turbines broke all records by briefly supplying just over four gigawatts (GW) of electricity to the national grid. Three hours later, in Germany, that country's 23,000 wind turbines and millions of solar panels similarly achieved an unprecedented output of 31GW. But the responses to these events in the two countries could not have been in starker contrast.

In Britain, the wind industry proclaimed a triumph. Maria McCaffery, the CEO of RenewableUK, crowed that "this record high shows that wind energy is providing a reliable, secure supply of electricity to an ever-growing number of British homes and businesses" and that "this bountiful free resource will help drive down energy bills". But in Germany, the news was greeted with dismay, for reasons which merit serious attention here in Britain.

Germany is way ahead of us on the very path our politicians want us to follow – and the problems it has encountered as a result are big news there. In fact, Germany is being horribly caught out by precisely the same delusion about renewable energy that our own politicians have fallen for. Like all enthusiasts for "free, clean, renewable electricity", they overlook the fatal implications of the fact that wind speeds and smilght constantly vary. They are taken in by the wind industry's trick of vastly exaggerating the usefulness of wind farms by talking in terms of their "capacity", hiding the fact that their actual output will waver between 100 per cent of capacity and zero. In Britain it averages around 25 per cent; in Germany it is lower, just 17 per cent.

The more a country depends on such sources of energy, the more there will arise – as Germany is discovering – two massive technical problems. One is that it becomes incredibly difficult to maintain a consistent supply of power to the grid, when that wildly fluctuating renewable output has to be balanced by input from conventional power stations. The other is that, to

keep that back-up constantly available can require fossil-fuel power plants to run much of the time very inefficiently and expensively (incidentally chucking out so much more "carbon" than normal that it negates any supposed CO<sub>2</sub> savings from the wind).

Both these problems have come home to roost in Germany in a big way, because it has gone more aggressively down the renewables route than any other country in the world. Having poured hundreds of billions of euros in subsidies into wind and solar power, making its electricity bills almost the highest in Europe, the picture

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altogether

that Germany presents is, on paper, almost everything the most rabid greenie could want. Last year, its wind turbines already had 29GW of capacity, equivalent to a quarter of Germany's average electricity demand. But because these turbines are even less efficient than our own, their actual output averaged only 5GW, and most of the rest had to come from grown-up power stations, ready to supply up to 29GW at any time and then switch off as the wind picked up again.

ow the problem for the German grid has become even worse. Thanks to a flood of subsidies unleashed by Angela Merkel's government, renewable capacity has risen still further (solar, for instance, by 43 per cent). This makes it so difficult to keep the grid balanced that it is permanently at risk of power failures. (When the power to one Hamburg aluminium factory failed recently, for only a fraction of a second, it shut down the plant, causing serious damage.) Energy-intensive industries are having to install their own

generators, or are looking to leave Germany altogether.

In fact, a mighty battle is now developing in Germany between green fantasists and practical realists. Because renewable energy must by law have priority in supplying the grid, the owners of conventional power stations, finding they have to run plants unprofitably, are so angry that they are threatening to close many of them down. The government response, astonishingly, has been to propose a new law forcing them to continue

running their plants at a loss.

Meanwhile, firms such as RWE and E.on are going flat out to build 16 new coal-fired and 15 new gas-fired power stations by 2020, with a combined output equivalent to some 38 per cent of Germany's electricity needs.

None of these will be required to have "carbon capture and storage" (CCS), which is just a pipedream. This makes nonsense of any pretence that Germany will meet its EU target for reducing CO<sub>2</sub> emissions (and Mrs Merkel's equally fanciful goal of producing 35 per cent of electricity from renewables).

In brief, Germany's renewables drive is turning out to be a disaster. This should particularly concern us because our Government, with its plan to build 30,000 turbines, to meet our EU target of sourcing 32 per cent of our electricity from renewables by 2020, is hell-bent on the same path. But our own "big six" electricity companies, including RWE and E.on, are told that they cannot build any replacements for our coal-fired stations (many soon to be closed under EU rules) which last week were supplying more than 40 per cent of our power - unless they are fitted with that make-believe CCS. A similar threat hangs over plans to build new gas-fired plants of the type that will be essential to provide up to 100 per cent back-up for those useless windmills.

Everything about the battle now raging in Germany applies equally to us here in Britain – except that we have only fantasists such as Ed Davey in charge of our energy policy. Unless the realists stage a counter-coup very fast, we are in deep trouble.

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