

Diesel dreamers



The lack of any serious plans to increase electrification across the network not only seriously undermines the railways sustainable transport credentials but could, argues Alan Whitehouse, as fuel prices rise, erode its economic case too

ELECTRIFICATION, WE ARE TOLD, IS OFF THE AGENDA. THE Strategic Rail Authority resolutely refuses even to discuss it. Electrification never even gets onto the radar screens of the TOCs – indeed, at least one has said it would prefer to revert to diesel haulage over part of its route.

Worse, as the discussion, consultation and speculation over the future of the new Greater Western Franchise gathers pace, electric trains are not even being mentioned. The industry has taken a collective view that the last of the three 'great' main lines will not be seeing the wires strung for the foreseeable future.

All this might not matter but for two things: one, planning and executing railway electrification projects still takes an awfully long time; and two, the oil that powers all those High Speed Trains is just beginning to run out.

We don't talk much about oil reserves and the projections for demand and supply. The whole world has come to expect that the next supertanker will be just over the horizon and there will always be a tank-full of unleaded in the pump. But we are rapidly tipping from complacency into denial.

Far-fetched? Alarmist even? Not according to the geophysicist Kenneth Deffeyes, who last year told *New Scientist* magazine that he was 99 per cent certain that this year – 2004 – would see the peak year of global oil production. When the next 12 months are up, its downhill all the way.

Not everyone agrees, of course. Others say peak production is some years off. But there is a sizeable consensus that it will happen some time before 2010. The US authorities are more optimistic. They reckon peak global production will happen in 2037. But they use figures which, their critics say, are fudged.

So, the supply of oil will begin to tail away, but the demand for it will not. Forecasts say present demand, instead of consuming 76m barrels of oil per day as we do now, will have risen to 112m barrels per day by 2020.

GCSE economics tell you that, when demand for any commodity outstrips supply, the price goes through the roof. That looks increasingly like the future for oil prices, and it ought to be making the railway industry stop and think hard.

Less oil and burgeoning demand means that industries heavily dependant on it are faced with either finding an alternative, or suffering a severe contraction as some of the services currently provided become hopelessly uneconomic. It is difficult to think of an industry more heavily dependent on oil than transport. And it is an equally sobering thought that, long before the Voyager fleet – for example – is at the end of its life, oil prices will have rocketed

Railways already have some advantages, of course. Many commuter services – and not just in London and the South East – and four long-distance main lines: CML, ECML, Anglia, and the SWT route to Bournemouth and Weymouth, are already electrified.

But they form no more than a core, which would be swamped if rising oil prices triggered any significant switch from road to rail transport.

A glance at the network map shows many gaps. None of the trans-Pennine routes are electrified, and nor is there any prospect of it happening. The two glaring omissions are the GW main line and the Midland Main Line. In almost any

other European country, they would have seen electric trains many years ago.

Electrifying the MML – and then throwing a 'spur' from Derby to Birmingham would also electrify around half the Cross-Country route network. Electrifying the GW main line to Bristol and Plymouth would make in-filling from Bristol to Birmingham irresistible.

Back in 1979, this is more or less what was envisaged. A joint British Rail / Department of Transport study carefully examined the costs and benefits of railway electrification using 25kv OLE. It found that, for many routes, electrification would bring many benefits; more passengers, greater reliability and reduced operating costs were just the most obvious ones.

Not a lot has happened since then. The Anglia and ECML routes have been electrified. But in the case of the ECML, it had to be done as cheaply as possible. As a result, the constraints under which it operates today would leave continental railway managers open-mouthed.

Places such as Harrogate, Hull and Aberdeen were left off the electric network, so that a fleet of diesel trains is still needed alongside the newer electrics.

The whole system was installed so cheaply that it has been bedevilled since the day it was commissioned, by breakdowns, dewirements and failures of every kind. No wonder GNER's Christopher Garnett has lost patience with the whole idea of electric trains and would rather have a go-anywhere diesel instead.

From a hard-headed business point of view, he is right. Every time there is a problem it takes longer to recover from it than on non-electrified lines and customer confidence takes a knock.

But from a long-term strategic point of view, he is wrong. The real answer to GNER's problems is a robust electrification system that takes hard knocks before it packs in. The industry has the technological knowledge to do it. Electric trains operate all around the world in conditions far harsher than those found in Britain.

But it would all take a political will and a sustained injection of funds that is hardly likely to be found. We have discovered – too late – that starving a sizeable railway system of cash for 25 or 30 years, and then expecting it to work properly, is a mistaken proposition.

And yet, the alternative is difficult to contemplate. If – when – oil prices begin rising steeply it will be too late to avoid a huge, national disruption. Railways will never be the total answer, but they could make a huge contribution to finding an alternative way of maintaining normal life.

Rail's key strengths are already well known. It is the best system we have for shifting bulk commodities and carrying large numbers of people over long distances. But, more recently, we have also begun to see how they can help to keep supermarket shelves stacked and how they can get commuters out of cars when a half-decent service is laid on.

Electric railways have a lot going for them. But that isn't really what matters any more. The blunt truth is that the transport system we have today is rapidly becoming unsustainable. And that is why now ought to be the moment when the SRA puts together a team of visionaries to plan – not whether mass electrification is going to happen – but how.

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