

JONATHAN BRAY



Plugging into the air quality agenda

With dirty city air rising up the agenda, transport, energy and air quality policies need to plug in. Nottingham is showing the way

► ‘The Great Stink’ of 1858, where the Thames’ role as a sewer and industrial waste outlet culminated in an intolerable summer for parliamentarians, finally led to the creation of a modern sewerage system for the capital. For cholera then, read cancer now, as the grey haze that settles over cities and infiltrates our lungs has now passed a point where it provokes no more than a shrug of the shoulders about the downsides of urban life.

Dirty city air went first from being a concern of public health professionals, then the pressure groups, then the key politicians and is now increasingly a concern amongst the wider public. For transport it has gone from a marginal consideration to the big idea that’s determining the direction of transport policy. In no time at all we’ve gone from a policy predicated on making air quality actively worse (the promotion of diesel vehicles) to one that will now be focussed on sending air polluting diesel powered vehicles the same way as the street polluting horses they replaced.

Air quality has given big city politicians a cause and a crusade with resonance from those previous historical moments, like ‘the Great Stink’, where the time had come for action to clean up water, sanitation or air quality. However the legal targets for cleaning up urban air over the next few years are daunting and the measures needed to achieve them are far from trivial. The timescales are far tougher than Sir Joseph Bazalgette had to modernise London’s sewerage back in Victorian days

(when public consultation requirements were somewhat more rudimentary than today).

You certainly wouldn’t want to start from here given how many years the government wasted in trying it on with feeble excuses for national air quality strategies. And now, after two crushing defeats in the Supreme Court the court’s appetite for leniency is clearly exhausted, leaving the government fearing for

“Nottingham also has its own power station which turns municipal waste into heat and power”



its credibility if the judges rule against them a third time. So after these wasted years of Whitehall dissembling and verbal smog we are now in a place where to get even close to hitting the air quality targets in the time now left available all sorts of measures that were in the ‘way too difficult’ basket are now back in play - from charging systems to vehicle bans.

Public transport should benefit from the modal shift that change in mindset implies, especially if part of the deal is to put more money the way of sustainable travel alternatives. Public transport should benefit - but not necessarily always will. Because in some places public transport is currently a cause of significant air quality problems.

Idling diesel trains in city centre railway stations. Big bus operator fleets that are still slowly grinding their way up through the less impressive tiers of Euro standards. Token competition from ducking and diving independents using grotty old buses. Where this is happening public transport operators, like perhaps the rest of the population, could be in for a shock when the full implications sink in of the rapid scale of the mobilisation of measures - fiscal and regulatory - that will be needed to hit the targets.

Beyond the immediate scramble to get the problem under control there’s a simple theoretical case to be made that electrification of much of the UK transport vehicle fleet should be the unifying principle we should be adopting. If we can green the power supply to the grid (and when I wrote these words coal was responsible for just 3.8% of national grid power) then we can have vehicles on our

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streets that create no air pollution at street level and power stations that add little carbon to the atmosphere.

Simple in theory but tougher in practice. The privatised power industry rivals the privatised rail industry for its opaque complexity of structure, tiers of shifting international owners and money men, disguised subsidies, fear of the concerted long term strategy, and lack of incentives for long term investment. And whilst everyone knows coal is bad for carbon, gas (the new king of the energy sector) is not as bad - but still not great. Plus it's not entirely clear how the intricate internal market of the UK power sector is going to keep the existing lights on - never mind how it's going to power an all electric transport network. And even if the raw power being pumped out by mighty power stations like Drax was sufficient - getting the power through local grids to spark into life even a modest number of electric buses is beset by problems because the infrastructure just isn't in place to do it. In short, transport, energy and air quality policies need to be better plugged into each other.

With all this in mind I was in Nottingham last week to see what is arguably the country's most municipally entrepreneurial of local authorities is up to in this area. The answer is a great deal already, with potential to make some really exciting further breakthroughs.

It's well known in the transport sector that Nottingham has one of the largest electric bus fleets in Europe - indeed all its park and ride services are now electric. What transport people are probably less aware of is that Nottingham also has its own power station which turns municipal waste into heat and power and uses the council's own grid and pipes to use that heat and power for local homes and businesses. In doing so it reduces carbon because of the reduction in methane generated by landfill and also turns a profit for the council. The council now also has its own not-for-profit energy retailer - Robin Hood Energy - which is cheaper than the Big Six and thus helps in tackling fuel poverty.

There is potential to join these dots so that electric trams and buses are powered efficiently and cost effectively through local energy generation that's greener than that which the national grid provides.

And it doesn't stop there as Nottingham is also pressing ahead in two other connected

'Solar Car Ports' at the Harvey Haddon Sports Village



spheres. Firstly, on other ultra low emission road vehicles through a host of initiatives, including action on local public sector vehicle fleets, taxis and on the wider installation of charging points. Secondly, through Nottingham being at the cutting edge of improving the energy efficiency of the built environment (including existing and new housing) such as the new council-delivered Nottingham waterside development where energy efficient homes will also have easy access to electric vehicle charging points. Nottingham is also home to the fascinating Creative Energy Homes project at Nottingham University where they build full size smart green houses to test out the latest tech and environmental innovations, including a house so energy efficient it doesn't need a boiler (a fact almost impossible to accept for a British person and the equivalent of 'range anxiety' for electric cars!).

The knock on benefits of all of these multiple and overlapping initiatives also includes benefits to the local economy not only from the employment that springs directly from them, but also from Nottingham establishing itself as a city where innovative things are happening on smart green transport, energy and housing which attracts bright ambitious people who want to work in this space.

Here's an example of some innovation in action. Where you have a car park you have a lot of vehicles standing out in all weathers - and when the suns out often getting very hot. Instead of using the power of the sun to melt

any exposed chocolate on the dashboard why not capture it instead through solar panels which sit above the parked cars. This theory is now being put into practice for the first time in the UK with 'Solar Car Ports' at the Harvey Haddon Sports Village in Nottingham in a way which feeds electricity directly into the building cutting carbon and reducing energy costs. If it works then there must be huge potential for similar schemes at car parks at rail and public transport interchanges. It's something that Nottingham could follow up on with additional solar generation at the Park and Ride sites to provide energy for ULEVs and Nottingham's electric bus fleet. In an age where the cult of austerity continues to hold sway, all of this - including the locally owned enterprises - helps to balance the municipal books.

Transport has a big role to play in the challenge of tackling air quality - however to crack these problems there needs to be more seamless thinking across policy areas with a keen eye for where the synergies are. In short, transport and energy policies need to plug in, and Nottingham is showing the way. ■

ABOUT THE AUTHOR

▶ Jonathan Bray is the director of the Urban Transport Group. Throughout his career in policy and lobbying roles he has been at the frontline in bringing about more effective, sustainable and equitable transport policies.