

One thing we have learnt this week – waste heat

Posted on *August 30,2019* by *admin*



Could waste heat be the solution to our heating needs? One of the biggest

problems we face in decarbonising the economy is what to do about how we heat our homes. At the moment we are highly dependent on natural gas. This is a finite resource. Various alternatives are frequently cited. These include hydrogen, which I regard as a complete waste of space and heat pumps which have very significant drawbacks. Search this site for blogs on these alternatives, take a read and see what you think. Could one solution be waste heat? There is the beginnings of a quiet revolution in district heating taking place across the UK with some government money as seed corn. In London this week it was announced that the waste heat from the tube is to be used to heat further 450 homes joining 700 odd on an existing network. Anyone who has been on the tube know how hot it is. Its also getting hotter with climate change. There is therefore an increasing incentive for Transport for London to cool it. Rather than pump the heat out into the atmosphere why not collect it? The scheme is going to use high efficiency heat exchangers to raise the temperature to 80°C from 18-28°C. There is possibility that almost 40% of London's heating needs could be met this way. On big advantage of the scheme is that its the sort of temperatures that gas boilers work at. This means you could use existing radiators and levels of insulation. Of course we need to insulate our houses better, but in the short term this could be very costly and in some cases almost impossible. There are other schemes being mooted in Greenwich and using waste heat from Wembley stadium in London. Stoke on Trent seems to be working on a scheme using natural occurring hot water and there is a very interesting scheme closer to home in Edinburgh. I've not been able to find many details on this at all, but it seems to involve pumping waste heat during summer into a very large disused mine, then using it in winter. This scheme would be linked with combined heat and power. There is one huge problem with district heating. That is it involves digging up the streets on a huge scale. This is not cheap or easy. But for many of us it may be the only solution before the gas runs out and a climate crisis strikes. Neil

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