

The White Paper on Energy came out on Monday 14th December and is about to go to Parliament. Everyone was very surprised that Hornsea Three was approved on Thursday 31st December 2020.

Hornsea Three is using a 1920s style grid connection. For the wind farms, it actually dates back to 2009, when the sea bed was leased out, and the electricity supply industry had the idea back then of putting in one cable for each separate project – the same projects that are so controversial now.

But at home, there is no need to have a separate set of wires from every socket back to the fuse box, like they did in the 1920s. The ring main was invented about 75 years ago. The wiring goes out in a loop from the fusebox, round the house, and back to the fuse box again, so that you can have sockets where you need them, and plug your vacuum cleaner in anywhere around the house. It saves a lot of wiring, and you can have more sockets too, because you don't need to use them all at the same time.

It's the same with wind power. Back in 2015, National Grid and the offshore wind industry came up with a scheme to run a new offshore cable all the way down the East Coast, bringing more power from the north of the UK where it is generated, down to London, where it is mostly used. Then all these big new wind farms – Dogger Bank, Hornsea Three, Norfolk Vanguard, Boreas and so on – could all plug into it and use the same cables and the same landing points, and share all the costs.

The National Grid report from back in 2015 showed that this type of connection scheme saved as much energy as the equivalent of one whole wind farm – helping to save the planet more quickly. It can be better for the environment too, because when the cables are laid offshore, they may not do so much damage to creatures on the sea bed near the shoreline. And it's the offshore work that creates the long-term local jobs, not just for building turbines out at sea, but for building and maintaining the offshore substations as well. Bringing all the substations onshore, with one cable for each project, doesn't create many long term jobs, but the disruption would go on for year after year, and that could easily mean jobs lost in tourism, and a loss of good farmland, as well as higher costs for consumers.

There is still four weeks left to make a challenge against the Hornsea Three decision, and our parish, district and county councillors and local MPs may wish to consider that now, while there is still time.

The original National Grid substation at Dunston Woods is down in a hollow, surrounded by mature trees – most people don't even know it's there. They followed the planning rules when it was built.

The Hornsea Three substation would be like a six story high building, on high ground, and shouldn't really be there – that area is supposed to be a protected landscape zone on the approach to Norwich. There would be a big increase in construction traffic, digging up the road not just once, but maybe filling the trenches in, and then coming back a year later and digging them up a second time. Then the Dudgeon and Sheringham Shoal projects would come through, digging up the same road again, and building another onshore substation. This could push the morning commuter traffic onto smaller roads, and leave the area with a big industrial park on what should be farmland for growing food. The NFU has said the whole scheme may permanently affect 1,500 acres of farmland across Norfolk.

In 2015, the experts worked out a way to avoid all this damage to the countryside, and to get more green energy through the grid down to London at the same time. So now it seems to be a question of how best to meet the UK's legal obligations on climate change. The 2015 report showed that offshore transmission could save the equivalent of one whole wind farm of renewable energy. This choice is still possible, so when the White Paper on Energy is put before Parliament, Norfolk MPs may wish to consider calling for the offshore ring main idea to go ahead as soon as possible. This matters because of the pressing importance of climate change, and also because it's much better for jobs, for nature, and the environment as well. It's not a conflict situation, but one where everybody can still benefit.

If the projects are not joined up offshore, then each substation could be up to 20% bigger than it needs to be, and cost more for consumers, and yet be only 50% utilised, on average, throughout the year – something to think about as you drive past it every day. Norfolk as a county already has a lot of solar energy (6th place in the UK), and hosts smaller wind farms like Dudgeon and Sheringham Shoal, but there is no oil or coal, so East Anglia is already one of the greenest places in Britain.

Let's keep it that way, and advance more quickly towards our climate change goals at the same time.