Tidal Power – the UK's 'Gift of God'

"…Somewhat insensitively, Ilham Aliyev, President of Azerbaijan, focused his opening address at CoP29 (which his country is hosting) on how immensely grateful he and his fellow citizens are for the astonishing "Gift of God" which their huge oil and gas assets represent. He got a right hammering from outraged NGOs…

…And that made me think about the UKs equivalent "Gifts of God" – namely, some of the best offshore wind resources in the world, which we're already making good use of, as we are of our rather more modest solar power (still astonishing in such grey and gloomy conditions!), and our amazing potential for tidal power.

Yes, that's right: TIDAL POWER, especially (but not uniquely) in the magnificent Severn Estuary. But unlike our wind and solar, this is a gift which we've consistently spurned for more than 100 years.

Only France and South Korea can claim anything like a similar potential – in our case to provide around 7% of total electricity demand from the Severn alone, such is the 'reach' (the difference between high tide and low tide) of this mighty river. With a guaranteed flow of predictable green electrons for at least 120 years, and possibly a whole lot longer.

I bang on about tidal power a lot – and there's a big tidal moment coming over the next few months. In March next year, the Severn Estuary Tidal Energy Commission will be producing its final report on the potential (and feasibility) for harnessing all that power from the Severn – both tidal barrages and tidal lagoons.

I've got a lot of skin in this tidal game. As Chair of the

Sustainable Development Commission, I still bear the scars of the NGO's extremely hostile response to our pro-tidal 'Turning the Tide' report in 2007. Even then, 17 years ago, we felt that the pros massively outweighed the cons, subject to some very rigorous conditions on both environmental and governance issues.

In the end, however, their hostility was more than matched by the civil servants in the Department for Energy and Climate Change (DECC). Responding to some Feasibility Studies done in 2010, they declared that our Report suffered from "chronic optimism bias", adding an astonishing 50% of contingency costs to the original budget! Allowing them to declare the whole idea as completely uneconomic.

On what grounds? At the time, I put it down to "chronic nuclear bias". They'd already come to the conclusion that EDF's monstrous nuclear proposals for Hinkley Point would cost an arm and a leg, and Treasury was already very leery of DECC's inability to keep costs under control.

Well, a lot of God-given tides have flowed up and down the Severn since then, and here we are again. Assuming the recommendations of the Commission will be broadly positive, is this Government going to do a better job than the Tories did?

There are four game-changers since 2007 that should play an important part in their deliberation:

1. **TECHNOLOGY**
   There have been significant improvements in turbine technology since 2007, making it possible to plan for capturing all that energy both on the ebb tide and on the flood tide – bi-directional, in the jargon. This has huge economic consequences – as well as environmental benefits, with less damage being done to the estuary's intertidal areas as a result.
2. **NET ZERO**

The Tories were completely cynical about the imperative of decarbonising our grid, demonstrated both in Boris Johnson's mendacious bluster and Rishi Sunak's "climate-sceptical" pre-election backtracking (much good that did him). So far, Labour has stuck to its ambitious goal of delivering a decarbonised electricity supply system by 2030, and even though a barrage (or lagoons) on the Severn won't make any contribution to that decarbonised grid until around 2035, it will still be crucial given projected increases in electricity consumption after 2030 from both heating (substituting electric heat pumps for today's gas boilers) and transportation.

3. **ENOUGH OF THE NUCLEAR NONSENSE!**
   Unfortunately, Labour (and Ed Miliband in particular) has not yet given up on its nuclear fantasies. Intriguingly, however, it keeps on pushing out the date for a Final Investment Decision on a new reactor at Sizewell C well into 2025 and possibly beyond.

My hunch is that DESNEZ and Treasury have crunched the numbers from the nuclear power station being constructed at Hinkley Point in Somerset. EDF now acknowledges that the "overnight cost" for building Hinckley Point has risen to around £46 billion. Bad enough. But it gets a lot worse when you take account of the fact that the £46 billion does not include the cost of the capital EDF has had to borrow to get the thing built – from a start date in 2017 to an end date of, say, 2030. Experts reckon that will add at least another £35 billion, putting the final cost of Hinkley Point at anywhere between £80 and £85 billion, given that there are about to be further overruns.

This is no Gift of God. This is the spawn of the Devil.

And it makes the economic case for a full barrage on the Severn Estuary even stronger.

4. **SEA LEVEL RISE**

Back in 2007, the Intergovernmental Panel on Climate Change was still projecting somewhere between 30 and 50 cm of average sea level rise by 2100, with one metre given as a “worst case”. 1 metre is now pretty much “baked in” as the minimum sea level rise by 2100, with a range of 1.3 to 1.6 metres probable. And 2 metres possible as a worst case if emissions keep on rising as they still are – and if all those petrostates such as Azerbaijan keep on insisting on their right to maximise the profits due to them from their god-given gifts.

So, being cautiously realistic, we should probably be counting on a 1.5 metre sea level rise by 2100. That should certainly focus the minds of government ministers, let alone of all those living anywhere near the Severn Estuary.

Bottom line: with foresight, from a strictly economic perspective, we should be investing right now in a bloody great Severn Barrier (along the lines of what the next Thames Barrier is hoping to achieve). EVEN IF IT NEVER GENERATED A SINGLE ELECTRON OF GREEN ENERGY!

But that really wouldn’t be the best way of utilising this astonishing, unique Gift of God. Would it? How much better to have a barrier/barrage generating clean, green electrons through into the middle of the next century.”