Japan's disaster would weigh more heavily if there were less harmful alternatives. Atomic power is part of the mix

You will not be surprised to hear that the events in Japan have changed my view of nuclear power. You will be surprised to hear how they have changed it. **As a result of the disaster at Fukushima,** I am no longer nuclear-neutral. **I now support the technology.**

A crappy old plant with inadequate safety features was hit by a monster earthquake and a vast tsunami. The electricity supply failed, knocking out the cooling system. The reactors began to explode and melt down. The disaster exposed a familiar legacy of poor design and corner-cutting. Yet, **as far as we know, no one has yet received a lethal dose of radiation.**

Some greens **have wildly exaggerated the dangers of radioactive pollution.** For a clearer view, look at the graphic published by xkcd.com. It shows that the average total dose from the Three Mile Island disaster for someone living within 10 miles of the plant was one 625th of the maximum yearly amount permitted for US radiation workers. This, in turn, is half of the lowest one-year dose clearly linked to an increased cancer risk, which, in its turn, is one 80th of an invariably fatal exposure. I'm not proposing complacency here. I am proposing perspective.

If other forms of energy production caused no damage, these impacts would weigh more heavily. But energy is like medicine: if there are no side-effects, the chances are that it doesn't work.

Like most greens, I favour a major expansion of renewables. I can also sympathise with the complaints of their opponents. It's not just the onshore windfarms that bother people, but also the new grid connections

(pylons and power lines). **As the proportion of renewable electricity on the grid rises, more pumped storage will be needed to keep the lights on. That means reservoirs on mountains: they aren't popular, either.**

The impacts and costs of renewables rise with the proportion of power they supply, as the need for storage and redundancy increases. It may well be the case (I have yet to see a comparative study) that up to a certain grid penetration – 50% or 70%, perhaps? – renewables have smaller carbon impacts than nuclear, while beyond that point, nuclear has smaller impacts than renewables.

Like others, I have called for renewable power to be used both to replace the electricity produced by fossil fuel and to expand the total supply, displacing the oil used for transport and the gas used for heating fuel**. Are we also to demand that it replaces current nuclear capacity?** The more work we expect renewables to do, the greater the impact on the landscape will be, and the tougher the task of public persuasion.

But expanding the grid to connect people and industry to rich, distant sources of ambient energy is also rejected by most of the greens who complained about **the blog post I wrote last week in which I argued that nuclear remains safer than coal.** What they want, they tell me, is something quite different: we should power down and produce our energy locally. Some have even called for the abandonment of the grid. Their bucolic vision sounds lovely, until you read the small print.

At high latitudes like ours, most small-scale ambient power production is a dead loss. **Generating solar power in the UK involves a spectacular waste of scarce resources. It's hopelessly inefficient and poorly matched to the pattern of demand**. Wind power in populated areas is largely worthless. This is partly because we have built our settlements in sheltered places; partly because turbulence caused by the buildings interferes with the airflow and chews up the mechanism. Micro-hydropower might work for a farmhouse in Wales, but it's not much use in Birmingham.

And how do we drive our textile mills, brick kilns, blast furnaces and electric railways – not to mention advanced industrial processes? Rooftop solar panels? The moment you consider the demands of the whole economy is the moment at which you fall out of love with local energy production. A national (or, better still, international) grid is the essential prerequisite for a largely renewable energy supply.

Some greens go even further: why waste renewable resources by turning them into electricity? Why not use them to provide energy directly? To answer this question, look at what happened in Britain before the industrial revolution.

The damming and weiring of British rivers for watermills was small-scale, renewable, picturesque and devastating. By blocking the rivers and silting up the spawning beds, they helped bring to an end the gigantic runs of migratory fish that were once among our great natural spectacles and which fed much of Britain – wiping out sturgeon, lampreys and shad, as well as most sea trout and salmon.

Traction was intimately linked with starvation. The more land that was set aside for feeding draft animals for industry and transport, the less was available for feeding humans. It was the 17th-century equivalent of today's biofuels crisis. The same applied to heating fuel. As EA Wrigley points out in his book Energy and the English Industrial Revolution, the 11m tonnes of coal mined in England in 1800 produced as much energy as 11m acres of woodland (one third of the land surface) would have generated.

Before coal became widely available, wood was used not just for heating homes but also for industrial processes: if half the land surface of Britain had been covered with woodland, Wrigley shows, we could have made 1.25m tonnes of bar iron a year (a fraction of current consumption) and nothing else. Even with a much lower population than today's, manufactured goods in the land-based economy were the preserve of the elite. Deep green energy production – decentralised, based on the products of the land – is far more damaging to humanity than nuclear meltdown.

But the energy source to which most economies will revert **if they shut down their nuclear plants is not wood, water, wind or sun, but fossil fuel.** On every measure (climate change, mining impact, local pollution, industrial injury and death, even radioactive discharges) **coal is 100 times worse than nuclear power**. Thanks to the expansion of shale gas production, the impacts of natural gas are catching up fast.

Yes, I still loathe the liars who run the nuclear industry. Yes, I would prefer to see the entire sector shut down, if there were harmless alternatives. But there are no ideal solutions. Every energy technology carries a cost; so does the absence of energy technologies. **Atomic energy has just been subjected to one of the**

harshest of possible tests, and the impact on people and the planet has been small. The crisis at Fukushima has converted me to the cause of nuclear power.

https://www.theguardian.com/commentisfree/2011/mar/21/pro-nuclear-japan-fukushima

Article suivi de ce que The Guardian ajoute à la fin de chaque article passé que l'on consulte, très très en phase, il faut bien le dire avec les idée de Georges Monbiot à moins que ce soit vice-versa :

We've got an announcement…

… on our progress as an organisation. In service of the escalating climate emergency, we have made an important decision – to renounce fossil fuel advertising, becoming the first major global news organisation to institute an outright ban on taking money from companies that extract fossil fuels.

In October we outlined our pledge: that the Guardian will give global heating, wildlife extinction and pollution the urgent attention and prominence they demand. This resonated with so many readers around the world. We promise to update you on the steps we take to hold ourselves accountable at this defining point in our lifetimes. With climate misinformation rife, and never more dangerous than now, the Guardian's accurate, authoritative reporting is vital – and we will not stay quiet.

We chose a different approach: to keep Guardian journalism open for all. We don't have a paywall because we believe everyone deserves access to factual information, regardless of where they live or what they can afford to pay.

Our editorial independence means we are free to investigate and challenge inaction by those in power. We will inform our readers about threats to the environment based on scientific facts, not driven by commercial or political interests. And we have made several important changes to our style guide to ensure the language we use accurately reflects the environmental emergency.

The Guardian believes that the problems we face on the climate crisis are systemic and that fundamental societal change is needed. We will keep reporting on the efforts of individuals and communities around the world who are fearlessly taking a stand for future generations and the preservation of human life on earth. We want their stories to inspire hope.

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