guardian.co.uk

Our nuclear tragedy

The idea that a few new reactors can solve climate change is attractive – and completely unrealistic

Jonathon
guardian.c

If you are a minister in a government that spent its first 10 years in office talking on and on about the merits of energy efficiency and renewable power, but actually doing very little about it, then conjuring up a programme of nuclear power as a "get out when all else fails" sort of makes sense.

If you are chief executive of a large energy company in a country where the regulatory system does not permit you to make much money on your renewable investments, and no money at all from selling fewer electrons (to increase efficiency) rather than more, then taking a punt on a couple of nuclear reactors definitely makes sense. All the more so since you can pretty much guarantee that the government will pick up the tab for anything that goes wrong.

If you're a citizen of that country and increasingly concerned about climate change and the need to find alternatives to fossil fuels in order to cut emissions of greenhouse gases, then you might reluctantly conclude that there's no alternative but to replace nuclear reactors that are due for decommissioning.

If, like me, you are the former chair of the Sustainable Development Commission, which battled in vain for years to persuade the government that there are far better ways of meeting objectives on climate change, then all these pretexts for resuscitating our moribund nuclear industry remain utterly unconvincing.

The commission came to that opinion after nearly two years of research. We reviewed all available data on costs, waste, uranium, emissions reduction, safety, proliferation, security risks, and the impact of any new reactors on energy options. As dispassionately as we were able, we highlighted both the benefits of nuclear power and the disbenefits in each of those areas. The majority of us (with two of 18 commissioners dissenting)came to the conclusion that the disbenefits clearly outweighed the benefits.

A lot of it comes down to who you believe. For those with long memories, it's still difficult to attach much credibility to the promises of the nuclear industry. Two years ago it was the consensus view that companies bidding for new reactors would require no subsidy. Six months ago that bold (and some would say preposterous) assertion was put aside with a much more honest acknowledgement from E.ON, EDF and others that substantial amounts of public money would be required after all. Indeed, the case was made that the government would have to stop subsidising renewables in order to prioritise nuclear.

This change of heart may well have been influenced by the fiasco at Olkiluoto in Finland, where the new reactor is already massively behind schedule and over budget. This is the same reactor design that will apparently be rolled out here in the UK. Even the staunchest advocates of nuclear power concede that it's extremely difficult unearthing the true story about its cost. We do know, courtesy of the Nuclear Decommissioning Agency, that UK taxpayers face a bill of at least £70bn over the next 20 years or so for cleaning up the legacy of our existing nuclear facilities. Faced with that kind of reality, as we move into a period of inevitable austerity, it remains incomprehensible to me that the Treasury has now set aside its traditional scepticism about nuclear power.

For me, nuclear power is the lazy option. Stick up a few more reactors, don't say too much about costs per kilowatt hour (let alone costs for each tonne of CO2 abated), dump the responsibility of dealing with the waste on future generations, and don't worry too much about the state of the grid or the impact on renewable energy.

I can't deny that the alternative course of action (reducing total energy consumption by at least 40%, massively ramping up investments both in large-scale renewables – including the Severn barrage – and small-scale microgeneration, making a proper go of Combined Heat and Power and "Energy From Waste" schemes, and relying on combined-cycle gas turbines for base load generation) is the harder option in terms of the quality of leadership

required. But those still wavering about the balance of pros and cons should not underestimate the knock-on effects of any commitment to new nuclear. It will undoubtedly slow investment in new renewables. It will reassure politicians that they don't have to do the heavy lifting required to put energy efficiency at the heart of any strategy. It will weaken efforts to move towards localised distributed energy solutions (why else do you think the industry and pro-nuclear civil servants fought so hard against feed-in tariffs for so many years?), and it will "lock us in" to today's hugely inefficient generation and transmission system for the next 40 years or so.

And the tragedy is it won't make much difference anyway – even if the reactors do eventually get built after inevitable delay. If every OECD country follows this route, instead of pursuing the alternative mapped out above, then emissions of greenhouse gases will keep rising at a dangerously fast level, average temperatures will soar, the Greenland ice cap will melt far faster than anticipated – and all those shiny new reactors will be several metres under water. Oh, for a little bit of realism.