



Briefing 17th March 2016

Five Reasons Why the Government Shouldn't be Backing Hinkley Point C

In response to a growing clamour for Hinkley Point C to be cancelled, the Department of Energy and Climate Change has published a list of 5 reasons why it is backing the nuclear plant here:

<https://www.gov.uk/government/news/5-reasons-why-we-are-backing-hinkley-point-c>

All of them are wrong.

- (1) DECC says “*new nuclear is the only proven low carbon technology that can provide continuous power, irrespective of whether the wind is blowing and the sun is shining, giving hardworking families and businesses year-round energy security.*”

The UK Government and pro-nuclear advocates consistently argue that we need nuclear power to provide baseload electricity. In reality this idea is quickly becoming obsolete. In fact building more, large centralised baseload power stations like Hinkley Point C will undermine renewable energy by limiting the proportion of demand it can provide. During times when renewables are supplying lots of electricity, some of that power is likely to go to waste because the baseload power stations can't be turned off. But rapid advances in renewable energy, smart technology, and energy storage mean that it is possible to keep the lights on when intermittent renewables are not producing much electricity without large baseload power stations. New research from Germany has shown how wind and solar can meet around 80% of electricity demand, with biogas and hydropower providing the balance. Two projects under the collective name of Kombikraftwerk (combined-power plant) have clearly demonstrated that solar PV and wind power are complementary. The only backup required is 17% biogas electricity and 5% storage power. Together they provide a renewable electricity supply that is reliable 24/7, summer and winter.

For more information see Stop Hinkley's briefing “[Do we really need nuclear power to provide baseload power? Is 100% renewables possible?](#)”

The [Infrastructure Commission](#) has recognised that smart power – principally built around three innovations, interconnection, storage, and demand flexibility – could save consumers up to £8 billion a year by 2030, and help the UK meet 2050 carbon targets, and secure the UK's energy supply for generations.

- (2) DECC says: *“Hinkley will give a boost to our energy supply and our economy, bringing in billions of pounds of investment into the UK and creating 25,000 jobs during construction. This is about British security and British jobs.”*

25,000 jobs is clearly a huge exaggeration, and highly misleading. This figure has been taken from the EDF Energy website which talks about 25,000 employment opportunities. It would be more accurate to talk about 25,000 job years. According to the recruitment website [A2O People](#) there will be 5,600 people employed at the peak of construction, which, in theory at least, will only last for ten years. An analysis of other nuclear construction projects by [Cumbrians Opposed to a Radioactive Environment](#) suggests that around 5,000 construction jobs is more usual with perhaps around 600 permanent jobs once the station is open.

Building new nuclear reactors is probably the worst energy strategy we could choose in terms of job creation. The Government never discusses the job creation potential of alternative energy strategies, or the numbers of jobs lost in renewable energy since it started its onslaught on renewable energy subsidies. Just as nuclear power can damage efforts to reduce carbon emissions by saving much less carbon per pound spent than would be saved by an energy strategy based on energy efficiency and decentralised energy, so too nuclear power can actually kill jobs by creating far fewer jobs than would be created if the money were spent on alternative strategies. Companies may actually be dissuaded from setting up in areas near nuclear power plants, and existing industries, such as tourism and agriculture, which rely on an area's reputation for a clean environment could actually be damaged.

A [2004 Study by Goldemberg](#) estimated that nuclear power creates around 75 jobs for every terawatt hour generated; wind however creates 918-2,400/TWh and solar 29,580 – 107,000 jobs/TWh.

For more on Nuclear Power and Jobs see the [No 2 Nuclear Power Briefing February 2011](#).

There are huge renewable resources available in the South-West which are capable of boosting the rural economy and ensuring energy security. All that is holding the Region back from a renewable revolution is a failure of political will. [Regen South West](#) has pointed out that if the UK Government puts in place the policies needed to meet 15% of the South West's energy requirements (N.B. Energy, not just electricity, i.e. including heat and transport) this will deliver £10bn of investment and 24,000 jobs. The UK is committed, under EU rules, to meeting a 15% target for energy by 2020.

- (3) DECC says: *Hinkley will power close to six million homes, twice as many as the whole of London, for nearly 60 years, providing 7% of UK electricity. There is no question that new-nuclear is cost competitive. Offshore wind cleared at over £110 / MWh in the last auction for renewables. New gas could cost around £65 / MWh and new-nuclear has all the advantages of providing low carbon, baseload power for decades. In addition, we're getting 60 years of power from Hinkley but we're only paying for 35.*

Offshore wind is often characterised as being “stubbornly expensive” but there is a huge potential to reduce costs. The Government wants costs reduced to £100/MWh by 2020. The nuclear strike price of £92.50 was set in 2012 prices, so today this is [closer to £99/MWh](#).

DONG Energy which has just built the world's largest (630MW) wind farm in the Thames Estuary – the London Array - believes it can undercut this and reach [£85/MWh by 2020](#). The Cost Reduction Monitoring Framework (CRMF) [revealed last year](#) that the cost of energy from offshore wind farms was falling faster than expected and was ahead of schedule on its path to delivering the UK Government's target of £100/MWh by 2020. The more recent [second annual Cost Reduction Monitoring Framework](#) (CRMF) report, delivered by the Offshore Renewable Energy Catapult on behalf of the Offshore Wind Programme Board, gives strong evidence that the cost of energy from offshore wind continued to fall last year and remains on track to deliver the target of £100/MWh by 2020.

Electricity generated from onshore wind now being installed in the UK is over 30% cheaper than Hinkley C according to [Dr David Toke](#). At today's prices Hinkley would be paid around £99/MWh over 35 years. Compare this with £67/MWh currently being paid to newly install onshore wind farms for only 15 years.

A study by the [Solar Trade Association](#) shows that solar together with storage and flexibility would cost roughly half that of Hinkley Point C over the 35 year lifetime. In other words, choosing the solar together with storage and flexibility option would save consumers around £15bn. If the Government is seeking to get the best value for money for electricity consumers (generating low-carbon electricity at the lowest cost) the solar option is considerably more cost-effective.

If the UK really wants 3.2GW of 'baseload' power in Somerset, then the Hinkley C nuclear power station is not the only way. Wind power with 'wind to gas' plant and CCGT gas power stations could do the same - faster, cheaper, more flexibly, and at much lower technical and financial risk, [according to the Energy Brainpool](#), which has produced a study for Greenpeace Energy to submit to the European Court.

- (4) DECC says: *“Hinkley will be safe. It will need to comply with the UK's robust nuclear regulations (overseen by the independent Office for Nuclear Regulation) – one of the most stringent and safest in the world.”*

This statement is misleading, making it sound like all safety issues have been resolved. But, according to [The Times](#) the Office for Nuclear Regulation (ONR) has yet to give final approval to the French-led project amid increasing worries about the reactor's steel dome. No EPR reactors – the design proposed for Hinkley Point C - have [been completed anywhere in the world](#).

One EPR being built in Finland at Olkiluoto began construction in 2005 but it is not expected to commence operating until 2018, nine years late. The estimated cost has risen from €3.2 billion to €8.5 billion.

A second is being built at Flamanville in Normandy. First concrete was poured in 2007 and commercial operation was expected in 2012, but that timeframe has been pushed back to 2017 (with further delays likely). The estimated cost has increased from €3.3 billion to at least €9 billion. Two EPRs being built in China are thought to be about [three years behind schedule](#).

France's nuclear regulator, ASN, warned last year of “*very serious anomalies*” and weak spots in the steel reactor vessel being constructed at Flamanville. If the problem cannot be resolved EDF will have to break the dome out of the reactor building, which is near completion. ONR has been monitoring the situation. Tim Yeo, formerly an MP and chairman of the energy and climate change committee, said it was highly unlikely that the ONR would grant final consent for the reactor at Hinkley Point until the French regulator had resolved the problems at Flamanville. Another nuclear industry source agreed, saying: “*That would be impossible. It would just get murdered politically.*”

- (5) DECC says: *Hinkley will be a significant step forward in our transition to a low-carbon future, a milestone in our efforts to reduce emissions and to meet our climate change commitments in the most cost-effective way.*

Hinkley won't open until 2025 at the very earliest. In the meantime this Government has butchered the UK renewable industry and closed down energy efficiency programmes. Former energy and climate change secretary [Ed Davey has launched a blistering attack](#) on the government accusing it of “*butchering the UK's renewables on the basis of Alice in Wonderland economics*”. The government has repeatedly cited official forecasts of rising energy costs to justify cuts to subsidies for renewables, saying consumer bills need to be kept under control. But the calculations behind the forecasts – until recently undisclosed – show it expects domestic energy bills to be nearly £100 lower in 2020 than previously thought, despite rising subsidies.

Davey said the revelations provided further evidence the government had slashed renewable energy subsidies on the false premise there was excessive upward pressure on energy bills.

An energy efficiency programme would be much quicker to implement and could start reducing emissions right away and continue making further cuts every year between now and 2025 and beyond. Efficiency is increasingly being recognised as profitable without the kind of subsidies offered to new nuclear reactors and capable of delivering multiple other non-energy benefits such as better productivity, job creation, reduced fuel poverty and improved public health. A [recent report](#) from the United Nations Environment Programme (UNEP) shows that the potential for energy policy to increase energy efficiency in industry alone is massive. [Another report](#) from the University of Cambridge says that 73% of energy used in industry could be saved using currently available technical know-how and technology.

Spending on Hinkley Point C and other new reactors could obliterate spending on renewables, because of the way the Levy Control Framework is organised. Far from being a milestone in our efforts to reduce emissions, it will seriously damage efforts to tackle climate change by killing off the very industries we need to develop to achieve our objectives.