



Newsletter

December 2016

Hinkley Point C: A Story of Good vs Evil for the Pantomime Season

Stop Hinkley Press Release, 1 December 2016

Solar power is expected to be the cheapest form of energy (not just electricity) everywhere in the world by around 2030. Yet the UK Government and the French nuclear industry continue to struggle on with failed nuclear technology. Stop Hinkley says it's a real story of good versus evil for the pantomime season.

"Good solar and renewable energy will triumph in the end. (Oh yes it will!) All and sundry - from investment bankers to energy experts - keep telling the Government that for nuclear power 'it's behind you!' Unfortunately, if Government doesn't come to its senses soon, electricity consumers could be left with rather a large bill", according to Stop Hinkley spokesperson, Roy Pumfrey.

Vincent de Rivaz, the chief executive of EDF Energy, has assured Parliament that Hinkley Point C will be built by 2025 on time and within budget. (Oh no it won't!) But then EDF predicted in 2008 that electricity from Hinkley Point C would cost just £45/MWh – less than half the £92.50 consumers are going to have to pay for it. And de Rivaz himself predicted in 2007 that Hinkley electricity would be cooking our turkeys by Christmas 2017. (Oh no it won't!)

At the same time, FOI requests have revealed that just one Government Department has blown over £20million of taxpayers' money (oh yes it has!) on pointless consultancy on the shockingly bad deal struck with EDF.

The French nuclear industry is in a state of chaos (oh yes it is!), and no-one is quite sure where it will end up. Last week EDF's offices in Paris were raided by French competition authorities amid allegations that it was exploiting its position as a former state monopoly to keep rivals out of the market in France.

The day before Greenpeace filed a lawsuit against the Company, alleging that it was guilty of false accounting deliberately underestimating the cost of its nuclear reactors.

Meanwhile the problem, first discovered in 2014 at Flamanville (the reactor being built in Normandy which is the same type as the two proposed for Hinkley Point – the EPR) has escalated beyond EDF's worst fears. The discovery that the steel used for the cap on the reactor pressure vessel had carbon levels above permitted limits led to an internal investigation at Le Creusot – the French reactor builder, Areva's metal forge. This in turn led to the discovery of yet more anomalies. Areva is now reported to be reviewing all 9,000 manufacturing records at the forge dating back as far as 1943, including files from more than 6,000 nuclear components. It has also been discovered that some components forged in Japan by JCFC, a subcontractor for Areva have the same problem.

As a result, 12 of France's 58 nuclear reactors have been shut-down, but potentially more than half of them could be affected by the "carbon segregation" problem. Excessive levels of carbon in steel could make safety critical components more brittle and subject to sudden fracture or tearing under sustained high pressure, which is obviously unacceptable in a nuclear reactor.

In addition, some quality control reports about these safety critical components have been falsified or are incomplete.

From Hinkley Point's perspective, the main impact of all this will be on the financial viability of EDF. It has already been forced to reduce its 2016 generation targets and lower estimates for nuclear output in 2017. The Company already faces a seemingly impossible financial equation. It has a colossal debt of €37 billion; it must deal with the complex €2.5 billion takeover of Areva; and it has to find the money to extend the life of its 58 reactors at an estimated cost of between €60 and €100 billion by 2030.

Added to these woes, EDF has been accused by Greenpeace France of failing to disclose the true cost of running its fleet of reactors in France while financing two new ones in the UK. If it disclosed the true figures, the Company would be declared bankrupt. Greenpeace commissioned an audit by AlphaValue, the equity research company. The

report said that EDF would need to find a further €165 billion during the next decade to finance projects such as Hinkley Point and to fix its ailing reactors in France.

Stop Hinkley spokesperson Roy Pumfrey said: "It seems that the French nuclear fleet is getting very close to its sell-by date and it has deficient safety-critical components spread throughout. At the same time, the finances of EDF are in such a deplorable state that the company could soon be joining Areva in bankruptcy. The idea that we should pay £92.50 per MWh to these pantomime villains to build two of its failed reactors in Somerset is completely crazy."

Meanwhile, as researchers at global investment banks discuss the possibility that paying for energy could soon become a thing of the past, it is becoming increasingly obvious that the future is renewable. Cheap solar panels and advances in storage technology are about to transform the world. By 2030 or 2040 solar will be the cheapest way to generate electricity, indeed any form of energy EVERYWHERE. At the rate of growth that we are seeing at the moment of 35-45% per year solar will grow from providing 2% of global electricity to at least 50% by 2030. We can see the cost of batteries coming down in price dramatically. Turning surplus solar electricity generating during the summer into something we can put into natural gas networks is what we should be looking at in the UK. Generating hydrogen from water and, using microbes, combining it with carbon dioxide to form methane is the simplest way to do this.

Swedish utility Vattenfall has agreed to build a giant offshore wind farm in Denmark that would sell power for €49.50 per MWh. Vattenfall has broken its own previous record of €60 per MWh. Once the cost of transmission is included this works out at around £75.50/MWh compared with £100.50/MWh for Hinkley Point C (once inflation has been added to the £92.50 at 2012 prices).

"The Government knows that solar and wind will be cheaper by the time Hinkley is generating" says Roy Pumfrey. "It is blindingly obvious that solar and wind will win through in the end, but if the Government doesn't come to its senses soon electricity consumers will be paying EDF through their noses for nuclear electricity we don't need."



Hinkley Point consultants cost government over £20m

Clinton Rogers, BBC News, 21 November 2016

The UK government spent about £20m on consultants to help negotiate aspects of the deal to build Hinkley C nuclear power station.

The £18bn plant, being built by French energy company EDF, will meet 7% of Britain's electricity needs

The Stop Hinkley campaign group said it was "shocking, but not surprising".

Figures released by the Department for Business, Energy and Industrial Strategy show that four firms paid to advise the government between 2011 and 2016 were:

- KPMG (accountancy) - £4,363,767
- Slaughter and May (legal) - £12,038,989
- Lazards (finance advice and asset management) - £2,583,131
- Leigh Fisher (planning and technical advice) - £1,247,630

Stop Hinkley spokesman Roy Pumfrey said: "I knew years ago we were racking up bills for lawyers for Hinkley C.

"It seems to me absolutely outrageous that this bill has mushroomed, that we have got to more than £20m of public money spent on this."

In a statement, the department said the consultants had provided "legal, technical, financial skills and knowledge that were vital to support the department in its negotiations with EDF".

What is Hinkley Point and why is it important?

Theresa May delayed a final government decision on the project when she became prime minister, before it was finally approved in September.

It took years for EDF and the government to negotiate a guaranteed fixed price for electricity from Hinkley Point C of £92.50 per megawatt hours for the next 35 years.

Conservative MP for Bridgwater and West Somerset, Ian Liddell-Grainger, defended the cost of the consultants.

Mr Liddell-Grainger, who sat on the Public Administration Select Committee for 10 years, said that in the context of an £18bn investment for Britain and the complications of the Hinkley deal, it represented good value for money.

"We looked at this a few times and the cost to the government of taking these people [consultants] on full time to do specialist things like Hinkley... is just not going to be cost-effective," he said.

"So this is the only way round it."

EdF Tinkers Whilst Bridgwater Faces Traffic Meltdowns

Roy Pumfrey

Stop Hinkley members familiar with or local to Bridgwater may know that EdF has a series of junction alterations it intends to build as precursors to the proposed HPC main build.

Already, the Taunton Road into the town from Junction 24 of the M5 (which most EdF HGVs bound for HPC currently use) has become clogged for most of the working day. Coaches for London that pick up in Bridgwater are regularly delayed by at least half an hour just on this section of road.

Whilst the details are less important for Members living away from Bridgwater, the following points hold good.

It is a pity that EdF are tinkering with busy junctions in and around Bridgwater when, if they'd got on with it at the first opportunity, there could by now have been a Northern Bypass from north of Bridgwater to the Hinkley Point site and possibly beyond. That would have done away with the need to tinker.

There is an ongoing 'Consultation' on the imminent junction alterations. Sadly, the evidence of all previous EdF 'Consultations' is that they are merely opportunities to explain, defend and justify decisions already made, not listen to people's concerns and ideas and act on them.

Intermediate Level Radioactive Waste at Hinkley A Nuclear Power Station!

Allan Jeffery

The old British Magnox nuclear reactors, of which Hinkley A was one of the first, have now finished their working lives and are now at different stages of decommissioning. This involves the cleaning up of the plant's lifetime ionising radioactive wastes and preparing them for secure, safe, long term storage for hundreds of years.

The high level, hot waste [the spent fuel rods] were removed over 3 years after it was closed in 2000. These were transported in specially cooled flasks, by road and rail to Sellafield in Cumbria for reprocessing – no longer a Somerset problem!

Waste categorised as low level, short lived waste, was and still is compacted into sealed containers for a similar rail journey to Cumbria, to an ever expanding national low level waste store at Drigg, an increasingly precarious coastal site, threatened with climate change rising sea levels.

Intermediate Level Radioactive Waste (ILW) is not hot so does not require cooling, but is still dangerously radioactive for thousands of years. At most Magnox nuclear stations, like Hinkley A, the ILW will be stored onsite in a purpose built store. I recently attended a SSG sub group to hear and discuss the NDA's latest plans for storing this waste

at the Hinkley site. It includes three planning applications to Somerset County Council. This store will have to be home for ILW from 3 Hinkley sources. FED Waste, Fuel Pond Sludge Waste and Resin Filter Waste.

1. **The FED Waste** consists of a mixture of the Magnesium casing pieces that were stripped off the spent fuel rods when they were removed and 275,000 highly radioactive cobalt nimonic springs. Originally the plan was to chemically separate these by dissolving the Magnesium in Nitric Acid and filtering this out to sea, thus leaving a much smaller volume of the highly radioactive springs to be stored in a smaller number of extremely expensive high shielding containers. This process is being trialed at Dungeness in Essex, but has been abandoned for other reactors like Hinkley A because of technical, environmental and financial problems. Now the NDA's plans are to use physical separation methods and allow the less radioactive Magnesium casing to be compacted and stored in large, old style, cheaper, concrete storage containers, meaning a much smaller number of the very expensive mosaic steel containers would be needed for the highly radioactive springs.

2. **The Sludge Pond Waste** will have to be processed and encapsulated. This wet waste has been removed from the old fuel storage ponds and is in temporary storage.

3. **The radioactive resins** from the filtering systems will be grouted into steel drum True Shield containers so that there is no chemical reaction with the concrete.

All these waste packages, approximately 270 concrete boxes, 125 Mosaics and 500 True Shield Drums, will have to be stored safely in a new IWL store for at least 150 years at Hinkley until a national waste repository (GDF) is built.

Magnox sites and the NDA are putting in 3 planning applications to Somerset County Council to do with Intermediate Level waste storage.

Planning Application 1: Already applied for. This is to revert to the original sized plan, approved in 2012, to build an ILW store now they are returning to the original large concrete storage containers.

Planning Application 2: In early Spring 2017 they will apply to build an encapsulating plant next door to the waste store. This will save moving radioactive waste for long distances around the site.

Planning Application 3: This is a slightly more controversial plan involving moving ILW from other nuclear sites at Sizewell, Dungeness and Oldbury to the store at Hinkley. This would entail 25 lorry loads of cut up radioactive skips over a period of about 3 years. The SSG group and the Magnox/NDA will be having a public consultation before they put in this application. It will mean the waste store at Hinkley will need room for about 15 extra 6 metre cubed concrete storage containers.

The Hinkley Site Stake Holders Group (SSG)

Allan Jeffery.

The Hinkley SSG meets three times a year and is an opportunity for the nuclear operators of the A and B nuclear stations to communicate with local people via local stake holder group representatives. Here the A and B station directors, along with the Office of Nuclear Regulation (ONR), the Environment Agency (EA) and the National Decommissioning Authority, (NDA), present their latest reports on their activities to the SSG reps. These are from the local parish, district, town and county councilors along with interested groups including Stop Hinkley, the Green Party, Forum 21, Natural England and the West Hinkley Action Group.

SSG reps. can ask questions on the reports and request further information and speakers at future meetings. In theory any member of the public can attend the meetings and 20 minutes at the beginning of each meeting is available for members of the public to ask questions. Sometimes answers are given straight away by the relevant specialist, or else they will be covered during later reports.

Topics that are often questioned relate to; the decommissioning of the A station and how the radioactive waste will be dealt with and the progress and safety issues with the running of the B station. A common issue is local traffic management. Any questions about radioactive emissions are usually referred to the station's annual reports, though recently the EA have become actively involved with Stop Hinkley when asked about some extra sediment sampling at a previous meeting. Recently issues about emergency evacuation zones and iodine tablets have been reported on by a local county council officer stirring up even more questions on public safety. The financial constraints limiting the NDA and the ONR have also been discussed.

At present though any direct questions about the new build at Hinkley C are not to be discussed at these meetings, as EDF will not join the SSG until the C station is operational. Instead new build questions must be taken to the EDF community forum meetings, (I am also a rep. at these meetings.)

If you would like me to ask some questions, or even attend a meeting yourself, please contact me [See Contacts section]. I can e-mail you minutes and reports from these meetings from which you can get a lot of information

Happy New Year!

Subscription Renewals

For those who do not pay by Standing Order, the renewal forms are enclosed.

Those of you who do pay by SO will know the advantage of not having to remember to send a cheque.

We have welcomed a lot of new members this year and many long standing members have remained loyal, so our membership is growing. Your support is greatly appreciated.



Now, more than ever, it is vital that we increase our membership numbers to make our voice even louder. Please encourage friends to join. They can join by going to the website 'Support Us' page or by simply sending a cheque with their name and address to Stop Hinkley, 8 The Bartons, Yeabridge, South Petherton TA13 5LW. The suggested annual subscription is £12 for an individual (£5 unwaged) or £20 for a family. We ask you to donate as much as you feel able, but whatever you give, however

small, is gratefully received.

Thank you all for your support, and we wish you a very happy Christmas.

Events

**Stop Hinkley meetings
The December meeting has been
cancelled**

**Mondays 16 Jan & 20 Feb at 7pm
West Bow House, Milton Place
Off West Street, Bridgwater TA6 7RT**

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