nuClear news

No.50 May 2013

1. URGENT APPEAL 2013

nuClear News has reached issue No.50 and our 5th year. Over those 5 years, together with our Daily UK Nuclear News, we have become an important part of the energy political landscape. Many of the top energy journalists use the information to develop stories of their own, helping to keep the dangers, risks and costs of nuclear power at the top of the news agenda.

We are pleased to say that thanks to the generosity of the Polden-Puckham Charitable Foundation we have managed to maintain nuClear News as a free service, but as with most things costs are rising and we need your help to keep the monthly newsletter and daily news going.

PLEASE HELP by donating what you can. If half of our subscribers were able to donate £25 every year, that would help to keep our heads above water.

You can send cheques, made payable to "no2nuclearpower", to Pete Roche c/o Friends of the Earth Scotland, Thorn House, 5 Rose Street, Edinburgh EH2 2PR.

Or you can donate by PayPal. For details see here! :
http://www.no2nuclearpower.org.uk/help/donations.php

If you want to donate via internet banking, e-mail for bank details.

Thanks in anticipation.

2. Guaranteed Price Negotiations Drag On

As negotiations about the strike price for Hinkley Point drag on, EDF has been laying off staff on the construction site and delayed public consultations at Sizewell, and no-one seems in any hurry to come to agreement. The European Commission and the UK's National Audit Office may also prove to be obstacles to Government plans to subsidise new reactors. The question of who is actually going to pay for these new reactors remains unanswered, although the Chinese may be inching towards investing. It is now clear to almost everyone that new nuclear is not essential and people are beginning to ask why - if Centrica can walk away from Hinkley - doesn't the UK taxpayer do the same?

The BBC's Robert Peston has been asking government officials and ministers why they are taking so long to reach a deal with EDF on a strike price for Hinkley. The answer they give is "40 years" – and then they turn a whiter shade of pale. What they mean is that EDF says it needs a commitment of between 35 and 40 years on the price to be paid by consumers for the power generated by Hinkley, before it presses the button on £14bn of expenditure for the two new reactors. So we could find that taxpayers are committed to paying more for the electricity than is justified until 2060.

Peston says his reading of the mood of both sides is one of cautious pessimism. But both sides have a lot to lose if the deal doesn't go ahead. The Government would lose face - doubts would be exacerbated about its ability and determination to deliver on important job-creating and wealth-creating infrastructure projects - and EDF would have to write off more than £1bn it has already spent on the project, and its ambition to become the global player in nuclear development and operation would be damaged, and perhaps terminated. (1) As the negotiations have dragged on observers have suggested the likelihood of the government abandoning plans for a series of new nuclear plants. "*It is proving extremely difficult to get that first nuclear power plant built and there is an increasing feeling in industry that at £14bn a throw there is no chance of getting beyond one*," said Lord Robin Teverson, the LibDem spokesman on energy in the House of Lords. (2)

Just as we go to press, *The Guardian* reports that the top civil servant working on electricity market reform (EMR) has resigned. It is unclear at this stage what impact this might have on negotiations with EDF and the introduction of the Contract for Difference but Tom Greatrex, shadow energy minister, said the departure was the last thing the energy world needed. "*With mixed messages from DECC and the Treasury, a turf war between ministers and a delayed bill, it is not surprising many in the industry are alarmed at the prospect of more uncertainty*." (3)

According to Nick Butler in the FT, after months of confusion some clarity is finally beginning to emerge on energy policy. New nuclear stations will not be available until after 2020, so won't be able to help with any energy gaps around 2014-15. By 2020 the UK will be able to go for a mixture of offshore wind, gas, shale gas if it can be developed commercially, and perhaps some new nuclear if the negotiations succeed. The range of options available means that new nuclear is not essential. It may be desirable as part of a diverse mix but not at any price. If Centrica can walk away so can the UK taxpayer. The important clarity emerging from the last few weeks is that the government has understood that there is no need to rush. (4)

EDF has now begun laying off staff at Hinkley. It says it will cut "*the number of people working on the project for the time being*". The company declined to say how many of the 800 staff and contractors on the site would be stood down, but it is expected to be a "significant" number. EDF denies that the lay-offs amount to brinkmanship. "*This is not a bargaining chip. It's good project management.*" (5) "*We cannot afford to burn money every day, every week, every month without a clear understanding of where it's leading us.*" (6) The Stop Hinkley campaign said the lay-offs could be a sign that the project is on the verge of collapse. (7)

EDF's Chief executive Henri Proglio insisted he was "*in no hurry*" to agree a strike price. "*We have precise conditions in mind, and we are negotiating with the British*," he said. "*We obtained an extension of the lifespan of existing plants. As far as I am concerned, negotiations can fail*." (8)

EDF has also delayed the next round of public consultations over plans for Sizewell C, probably until next year. Although no date had been set for the second phase of consultation, which will pave the way for a formal planning application, it was expected to take place during the next few months. (9)

Financial problems could yet force EDF to pull out, according to Mycle Schneider, a former energy adviser to the French government. "*EDF is in big trouble*", he said. "*The whole of the nuclear power industry in France is in big trouble*." President Hollande is seen as a pivotal figure because he wants state controlled EDF to curb its nuclear power ambitions and invest heavily in improving safety at plants in France as well as giving a higher priority to renewable energy. Mr Schneider said that EDF with debts of €39bn (£33.3bn) might not have the cash to put into Hinkley and added: "*It's not certain it will go ahead*." There is a long list of issues that need to be agreed, not only the strike price. Even if there is an agreement the financing package has to be put together. (10)

State Aid Approval Required

Another major obstacle in delivering new reactors is that any subsidies will have to be approved by the European Union, which limits the state aid that can be given to industrial projects. Governments are not meant to unfairly advantage their own suppliers by providing them with any form of state help. In practice the EU has allowed a number of exemptions to this - feed in Tariffs for example. The EU commission can allow governments to give state aid under certain conditions - for example if it is to help meet a commonly agreed environmental objective. There is legally binding target to get 20% of our energy from renewable sources across Europe by 2020, but there is no agreed target for nuclear - or even 'carbon free' power. The EU guidelines for allowing state aid are also meant to encourage temporary support to new technologies - like offshore wind. If you are looking to prevent permanent distortions to competition a proposed 40 year contract for a huge nuclear plant is particularly unappealing. A paper prepared for the EU Green party by Prof Steve Thomas and lawyer Dorte Fourqet suggests UK support for nuclear is very unlikely to pass. But there are others who disagree. (11)

If the government strikes a deal with EDF, it would need to convince the European Commission that the strike price shouldn't count as a subsidy. Under state aid law, the commission can fine countries found to be boosting national industries, which could unfairly disadvantage their competitors. Running the gauntlet with the commission could "*result in a lengthy scrutiny process*", according to David Toke, energy policy specialist at the University of Aberdeen. But the

commission is currently considering changes to the rules, saying "[t]*he wish of some Member States to widen support also to other low-carbon energy sources including nuclear merits an in-depth discussion*". If the commission changed the rule to allow any type of low carbon technology to receive state aid, then the nuclear deal would be legal. Antony Froggatt, a senior research fellow at Chatham House, tells us he thinks the government is probably banking on the commission changing its mind, as the negotiations "*wouldn't have gone this far unless they're confident* [the changes] *are going to go through*". (12)

Whatever happens "*it could take the Commission several years to approve*," says Alan Whitehead MP, a member of the House of Commons select committee for energy and climate change. And the government has confirmed that it will have the power to change the terms of subsidy agreements without public disclosure. A DECC spokeswoman said: "*We have committed to laying before Parliament and publishing the terms of any contract including the strike price and reference price. Some limited terms, however, may not be made public for reasons of confidentiality or commercial sensitivity*." She added that one of the circumstances this would include is "*commercially sensitive information, which may be redacted from the varied contract laid before Parliament*." the provision has caused industry experts to question whether any lack of disclosure will delay or even prevent the European Commission approving the CfD scheme. (13)

In a letter to *The Telegraph* a group of more than 50 MPs, academics and green campaigners, (14) requested that "*in the context of openness, transparency, fiscal and regulatory accountability, and 'best value' for the UK taxpayer and energy consumer*", the National Audit Office should be tasked with undertaking a detailed review of the negotiations between the government and EDF. The joint letter warns that "*commercial confidentiality*" means these negotiations "*lack the necessary democratic accountability, fiscal and regulatory checks and balances*". The calls for an independent review of the talks, backed by Labour's Alan Whitehead and Joan Walley, the Lib Dem's Simon Hughes, Conservative Zac Goldsmith and the Greens' Caroline Lucas, as well as a host of academics and anti-nuclear campaigners, poses a further potential challenge to the government's plans for a new fleet of nuclear reactors. (15)

Dr Paul Dorfman UCL Energy Institute, University College London; Joseph Rowntree Charitable Trust Nuclear Policy Research Fellow, one of the letter's main authors says it's unclear how much of the money for the nuclear deal will fall under the government's levy control framework - which limits government spending on low carbon energy. He says that if it's a lot, he "*can't see how there will be any money left for renewables*" by 2022. Renewables could be forced off a "fiscal cliff" by the nuclear contracts. (16)

The National Audit Office opened the door to an investigation into any agreement between EDF Energy and the Government over building the £14bn Hinkley Point nuclear plant. Amyas Morse, the controller and auditor general of the audit office, said he will consider the case for a review of the negotiation of the Hinkley strike price if one is agreed. "*If the Government reaches agreement with EDF an audit could review the process and outcome of the negotiations and whether they have secured value for money*." This could "*inform the continued management of the contract*" and "*provide lessons for future negotiations*" of the so-called 'contracts for difference'. (17)

The Nuclear Industry Association has been piling on the pressure to reach an agreement over the strike price. Britain's energy security will be put at risk and future generations left to suffer with higher bills if ministers fail to agree a deal with EDF according to Lord Hutton, its chairman. Failure would undermine Britain's credibility with investors and threaten other projects across the energy sector. Lord Hutton also disclosed that the industry has calculated cost savings of 20% could be achieved for a second plant after Hinkley. (18)

Who will invest?

Behind the continuing negotiations one big question remains unanswered. Who is going to pay? Senior officials are concerned that the pressure to close a deal is undermining a sensible negotiating strategy by separating the terms – including the strike price and the issues of risk allocation – from the question of funding. The risk as seen from Whitehall is that EDF could be forced to come back in the autumn to say that they have not found the money, and the deal will have to be rewritten – for instance to offer investors some interim payments during the construction period . EDF clearly does not have the money itself. but investors have not been rushing into the nuclear business. They have both rational and irrational fears of the risks involved. If the agreed deal is too generous there will be concern that it will unravel. If it is too lean there will be worries that the cost projections will not be met, and the recent track record in the sector will deepen that concern.

Alternatively of course the UK Government could provide the funding itself – a decision which would certainly raise questions in Brussels and in other less privileged parts of the energy business. To get to that point would be humiliating and would undermine any of the anticipated economic and political benefits. (19)

The chances of a state-owned Chinese company investing in Hinkley moved a step closer after EDF signed a new co-operation deal with the China Guangdong Nuclear Power Holding Co. (CGNP). The new deal made specific mention of "*co-operation in future international projects*". EDF declined to comment on whether the CGNP could replace Centrica, which withdrew from the Hinkley project in February. (20)

There is now "no prospect" construction of Hinkley will begin this year, according to union leaders (21) Britain's nuclear industry is being put at risk by ministers' dithering according to 18 nuclear scientists in a letter to *The Telegraph*. They claim building a "fleet" of new reactors could lower household bills, provide a much-needed source of low-carbon energy and position Britain as a world leader in the global nuclear market. But the apparent stalling of talks with EDF Energy "undermines" this ambition and could scare away the investors. The group, which includes Prof Sir David King, former chief scientific advisor to the Government, warns that it is "*becoming increasingly concerned at the apparent slow progress of negotiations*". (22)

1. BBC 16th April 2013 http://www.bbc.co.uk/news/business-22164245
2. Guardian 23rd April 2013 http://www.guardian.co.uk/environment/2013/apr/23/edf-energy-nuclear-power-station
3. Guardian 29th April 2013 http://www.guardian.co.uk/environment/2013/apr/29/electricity-market-reform-resgination

4. FT 15th April 2013 http://blogs.ft.com/nick-butler/2013/04/15/uk-energy-policy-clearer-but-incomplete/
5. Telegraph 23rd April 2013 http://www.telegraph.co.uk/finance/newsbysector/energy/10013835/EDF-staff-cuts-raise-fresh-fears-over-Hinkley-Point-C.html
6. Guardian 23rd April 2013 http://www.guardian.co.uk/environment/2013/apr/23/edf-energy-nuclear-power-station
7. Stop Hinkley 23rd April 2013 http://www.stophinkley.org/PressReleases/pr130423.htm
8. Telegraph 23rd April 2013 http://www.telegraph.co.uk/finance/newsbysector/energy/10012737/EDF-cuts-jobs-and-spending-on-planned-nuclear-power-plant-at-Hinkley-Point.html
9. East Anglian Daily Times 29th April 2013 http://www.eadt.co.uk/news/sizewell_threat_of_new_delay_to_nuclear_plant_proposal_1_2171412
10. Telegraph 8th April 2013 http://www.telegraph.co.uk/finance/newsbysector/energy/9978548/EDF-in-big-trouble-says-French-nuclear-expert.html
11. Energy Desk 9th April 2013 http://www.greenpeace.org.uk/newsdesk/energy/analysis/can-uk-go-it-alone
12. Carbon Brief 24th April 2013 http://www.carbonbrief.org/blog/2013/04/will-the-public-subsidise-new-nuclear
13. ICIS 11th April 2013 http://www.icis.com/heren/articles/2013/04/11/9658263/eu-approval-for-uk-cfds-could-be-delayed-by-lack-of.html
14. Telegraph 6th April 2013 http://www.telegraph.co.uk/finance/newsbysector/energy/9975199/UK-nuclear-power-station-given-green-light-Hinkley-Point.html
15. Business Green 8th April 2013 http://www.businessgreen.com/bg/news/2259786/mps-and-academics-demand-independent-review-of-nuclear-negotiations
16. Carbon Brief 8th April 2013 http://www.carbonbrief.org/blog/2013/04/open-letter-raises-concern-over-government-nuclear-secrets
17. Telegraph 20th April 2013 http://www.telegraph.co.uk/finance/newsbysector/energy/10007825/Delayed-nuclear-deal-faces-inquiry.html
18. Telegraph 13th April 2013 http://www.telegraph.co.uk/finance/newsbysector/energy/9992621/Energy-security-at-risk-if-ministers-fail-to-seal-EDF-nuclear-deal.html and http://www.telegraph.co.uk/finance/comment/9992186/Why-Britain-must-make-nuclear-work.html
19. FT 28th April 2013 http://blogs.ft.com/nick-butler/2013/04/28/a-question-for-the-quod-who-will-fund-new-nuclear/
20. Guardian 26th April 2013 http://www.guardian.co.uk/business/2013/apr/26/edf-deal-chinese-uk-nuclear-programme
21. BBC 25th April 2013 http://www.bbc.co.uk/news/uk-england-somerset-22291500
22. Telegraph 21st April 2013 http://www.telegraph.co.uk/earth/energy/nuclearpower/10006141/Britains-nuclear-future-at-risk-experts-warn.html and http://www.telegraph.co.uk/comment/letters/10006905/The-Government-should-not-delay-on-its-nuclear-power-plans.html

3. Nuclear Subsidies

The House of Commons Environmental Audit Committee has launched an inquiry into Energy Subsidies in the UK. (1) This will investigate what should constitute 'subsidy', the extent of energy subsidies in the UK for nuclear energy, fossil fuel energy and renewables, and what the Government should be doing to identify and eliminate those subsidies which are — using the UN's terminology — "harmful". The inquiry began on 24 April by taking evidence from Dr William Blyth of Oxford Energy Associates who produced a detailed analysis of the extent of energy subsidies in the UK for the committee. (2)

Press coverage of Dr William Blyth's report focussed on the £2.3bn/yr subsidy given to the Nuclear Decommissioning Authority for dealing with legacy waste. (3) However, Blyth also highlighted possible subsidies to new reactors, such as the fixed payment mechanism - the so-called 'waste transfer price' for waste from new reactors:

"*The offer by government of a cap on liabilities could be considered a subsidy because it acts like an insurance policy. On the other hand, the government is aiming to charge for this transfer of risk via the risk fee, which in principle cancels out the subsidy. It is very hard to determine an appropriate 'market price' for this risk, since it would be almost impossible to obtain an insurance against such open-ended risks*." *As an illustration of the potential scale of subsidy, DECC has published an indicative waste disposal liability based on cost estimates for the disposal of intermediate level waste of £14.5k/m³. Based on this estimate, the illustrative cap would be £48.4k/m³. However, estimates of the NDA's true marginal cost for waste disposal is put at £67/m³ which suggests a significant risk that future liabilities may end up being transferred to the public purse."*

Blyth continues: "*Despite Ministerial announcements as recently as October 2010 that there would be no public subsidies for new nuclear plant, it is apparent that several subsidies will in fact be in place*."

Another example given is the limits to company liabilities associated with major incidents such as nuclear accidents, terrorist threats and so on. The UK government intends to increase the cap on liabilities to €1.2 billion from its present level of £140 million as part of its implementation of an international treaty on nuclear third party liability - the Paris and Brussels Conventions, but significantly higher liabilities in the private sector are not unprecedented and would clearly be substantially short of a full-scale disaster of the order of magnitude of Fukushima for which clean-up costs alone have been estimated at €175bn.

1. Environmental Audit Committee 24th April 2013 http://www.parliament.uk/business/committees/committees-a-z/commons-select/environmental-audit-committee/news/energy-subsidies-in-the-uk-inquiry/
2. Written evidence commissioned by the Committee from Dr William Blyth, Oxford Energy Associates http://data.parliament.uk/writtenevidence/WrittenEvidence.svc/EvidencePdf/700
3. FT 24th April 2013 http://www.ft.com/cms/s/0/fda9ea9a-ac29-11e2-a063-00144feabdc0.html

4. Horizon Update

The design assessment for Hitachi-GE's advance boiling water reactor (ABWR) has officially begun. The Japanese company has signed an agreement with the Office for Nuclear Regulation (ONR) and the Environment Agency (EA) which will enable the company to support work undertaken during the design assessment. The ONR and the EA will now begin work with Hitachi-GE on the timescale and resources needed for the assessment, with Hitachi-GE meeting all the costs for the design assessment. (1)

Despite this Hitachi is said to be increasingly reluctant to build in Britain and may pull out unless terms are improved. The Company is monitoring the Government's fractious talks with EDF. Japan's nuclear shift and the country's dash for economic growth under Mr Abe has taken pressure off Hitachi at home, and may make it less willing to accept thin pickings in Britain. Horizon-Hitachi is staying the course for now, agreeing to bear the costs of probing the new ABWR reactor design, It is a modest "pay-to-play" fee compared to the vast costs that come later. (2)

1. Utility Week 11th April 2013
   http://www.utilityweek.co.uk/news/news_story.asp?id=198402&title=Hitachi%27s+nuclear+reactor+starts+design+assessment
2. Telegraph 14th April 2013 http://www.telegraph.co.uk/finance/newsbysector/energy/9993564/Hitachi-reluctant-about-UK-nuclear-reactor-plan.html

5. Weightman Report Recommendations

Paul Flynn, (1) Labour MP for Newport West, scourge of the Energy Secretary and a founder member of the Welsh Anti Nuclear Alliance says shadow energy secretary, Caroline Flint, recently replied to an enquirer on Labour's nuclear policy that:

"*…the Weightman report, which investigated the implications of Fukushima for nuclear safety in the UK, concluded that there were no grounds to restrict UK nuclear reactors or stop building new ones*."

This is an inaccurate summary. Dr Weightman's final 288 page report- released in September 2011- had many conclusions and recommendations for action by the nuclear operators and Government.

On its publication, EDF's UK chief executive, Vincent De Rivaz, said:

"*We will review his findings in detail and build them into our plans. We have already committed to implementing his recommendations for us in full*."

DECC said in its December 2011 response to Weightman, that its Nuclear Emergency Planning Liaison Group (NEPLG) had, amongst other things:

"Considered in some detail the response required for faults considered to be reasonably foreseeable and additionally the response required for 'beyond design basis' accidents and recommended that industry consider the planning assumptions for these. It also recommended that ONR should enforce a stronger testing regime which includes extendibility arrangements and overseas nuclear accident response…"

ONR said in a reply to a Freedom Of Information Request asking for copies of reports prepared or commissioned by the ONR on destructive testing of vulnerable parts of nuclear facilities, that:

"*It is the licensees who are expected to commission such work to support their safety justifications for reactors*." And added that the ONR itself "*does not keep such records*."

Why is our nuclear safety regulator relying on the industry to police its own safety? The American nuclear regulators take a much more pro-active role. Last week *The Patriot News* reported that the Three Mile Island nuclear plant in Pennsylvania –the location of America's biggest nuclear accident in 1979- will be the first in the U.S. to be tested on its emergency response procedures in the event of a terrorist attack. The drill will take place in the context of a simulated attack, perhaps a strike from the air, like an airplane deliberately crashing into the facility, thought the nature of the fictional scenario is being kept secret. The Nuclear Regulatory Commission has been requiring nuclear plant operators to prepare for such scenarios since 2011. (2)

Meanwhile, the US Government has announced plans to fund to operate a pair of nuclear emergency response centres, able to rapidly transport vital safety equipment anywhere in the country. (3)

The Chemical Engineer said:

"The idea behind the centres was developed in the wake of 2011's Fukushima disaster, where damage caused by the initial earthquake was made worse when emergency backup generators and other equipment failed in the face of a devastating tsunami. Even once the problem had been recognised, the sheer scale of the disaster meant that it took considerable time for replacements to reach the site".

- Meanwhile, a Critical Review of the National Action Plans (NAcP) of the EU Stress Tests on Nuclear Power Plants by Oda Becker and Patricia Lorenz, commissioned by Greenpeace, looks at the plan for Wylfa. It concludes that the operator does not have much interest in improving the safety of the old Wylfa reactor and the Office of Nuclear Regulation (ONR) shares this approach because the reactor is due to close next year. It is irresponsible to assume that in a nuclear power plant of this age and deficiencies all safety relevant components will stay intact during an external impact (e.g. an earthquake) or under severe accident conditions. In the light of the design weaknesses, an evaluation of the natural hazards of the site would be important because Hitachi owned Horizon is preparing a project to build a new nuclear plant of two or three ABWR units at this site. The results could postpone or even preclude this project. (4)

---

1. See David Lowry's Blog 30th April 2013 http://drdavidlowry.blogspot.co.uk/2013/04/nuclear-fault-lines.html
2. Power Engineering, Apr 16, 2013, http://www.power-eng.com/articles/2013/04/three-mile-island-to-be-first-nuclear-plant-tested-on-terrorist-.html
3. The Chemical Engineer, 16 April 2013, http://www.tcetoday.com/latest%20news/2013/april/us-plans-nuclear-emergency-response-centres.aspx
4. Critical Review of the National Action Plans (NAcP) of the EU Stress Tests on Nuclear Power Plants. Study commissioned by Greenpeace, April 2013 http://www.greenpeace.org/luxembourg/Global/luxembourg/report/2013/Critical%20Review%20NAcP.pdf

6. Dungeness Airport Threat & Tritium Leaking for Months

Ministers have chosen to ignore warnings that residential and commercial property should not be built too close to the UK's nuclear plants. Documents released under the Freedom of Information Act show that the government rejected advice from the Office for Nuclear Regulation (ONR), regarding the lessons to be learned following Japan's Fukushima disaster. The regulator recommended restricting development near nuclear plants, advice that was overridden when the government approved the expansion of Lydd airport in Kent, a couple of miles from Dungeness nuclear power station.

Mike Weightman, HM chief inspector for nuclear installations, wrote a report for the government about the lessons to be learned from the Japanese meltdown, which said: "*In light of the events at Fukushima, we consider that it is timely for the relevant government departments in the UK to examine the existing system of planning controls for developments in the vicinity of nuclear sites and consider the need for improvements*."

Louise Barton, of Lydd Airport Action Group, described the failure to rein in development near nuclear facilities as "*reprehensible*". She said: "*The recommendation was made to save lives. What right has Mr Pickles to sacrifice public safety for the sake of growth?*" (1)

The power station is just three miles and 60 seconds flight time away from the power station. Now the European Commission has written to the UK Government expressing concerns. (2) In a letter sent to the UK Government, the European Commission sets out its concerns over Lydd Airport's ambitions. Lydd's proposal, if approved, would see it upgraded from a small airport used mainly by private fliers to a key regional airport able to handle short-to-medium range airliners up to Airbus A320-size. (3)

A Guardian correspondent said: "*Have Eric Pickles et al taken leave of their senses? Quite apart from any accident, doesn't anyone involved in this proposal have any memory of planes being flown into buildings, not by accident but as an act of terrorism? I cannot understand why the question of national security in the event of a possible terrorist attack did not rule out this proposal from the very beginning*." (4)

Meanwhile tritium has been found to be leaking out of Dungeness B power station. EDF Energy says there is no threat to staff or the public, but independent nuclear expert John Large says: "*I would be concerned, they have clearly gone over their statutory limit – it's eight times over the certified limit*." He said the investigation will need to find out the rate of decay, which could be up to 120 years, and where the water will have dispersed to over that time. An Environment Agency spokeswoman said they had been informed in September and December 2012 about the elevated levels or tritium in groundwater. She added: "*Dungeness B is a significant distance from any boreholes used for drinking water abstraction. As a precaution, the local water authority has been informed. EDF is conducting an investigation into the source of the tritium*." (5)

1. Observer 14th April 2013 http://www.guardian.co.uk/politics/2013/apr/14/nuclear-sites-planning
2. Rye and Battle Observer 5th April 2013 http://www.ryeandbattleobserver.co.uk/news/local-news/europe-queries-nuclear-safety-of-airport-plan-1-4957421
3. Airport International 5th April 2013 http://www.airport-int.com/news/airport-expansion-plans-raise-nuclear-concerns.html
4. Guardian 15th April 2013 http://www.guardian.co.uk/world/2013/apr/15/lydd-airport-danger
5. Romney Marsh Herald 18th April 2013 http://www.thisiskent.co.uk/Peter-Andre-filmed-leaking-radioactive-Dungeness/story-18732931-detail/story.html
6. Daily Mail 19th April 2013 http://www.dailymail.co.uk/news/article-2311217/Nuclear-power-station-leaking-radioactive-waste-months-says-Environment-Agency.html

7. Crisis! What Crisis?

In a devastating critique (1) of Electricity Market Reform, Peter Atherton, of Liberum Capital, says an energy crisis seems inevitable. Policy makers do not appear to comprehend the risks of their drive to decarbonise the power sector by replacing old fossil fuel plants with nuclear reactors and wind farms. Doing so while keeping the lights on and consumer bills affordable may simply be impossible, he says. Britain risks two possible power crunches, in 2014-17 or after 2020, because of old plants being switched off. It also risks sky-high rises in energy bills – either as a result of power crunches or because of the subsidies needed to make the policies work. And when such a crisis hits, it will be the energy companies that will "*get shot*". Future governments are likely to renege on their policy promises, he argues – urging Britain's biggest energy companies to be wary of investing in the UK. The signs are that they already are. (2)

Atherton says investors are extremely unlikely to stump up the £161bn needed by 2020, and £376bn by 2030, but if they do electricity bills will rise by at least 30% by 2020 and 100% by 2030.

Liberum published its research as DECC confirmed Jonathan Brearley, the lead civil servant on its Energy Bill set to become law by the year-end, resigned with effect from July to take a career break. Electricity market reform will not be disrupted by the change according to DECC. (4)

Atherton says successive governments have grossly underestimated the engineering, financial, and economic challenges posed by the drive to decarbonise the electricity sector by 2030. He says the Energy Bill effectively re-nationalises the investment-making decision process in the power sector. But it is not clear that policy makers yet appreciate that this also means that the risks and costs associated with these decisions must also transfer to the public.

---

1. Liberum Capital 30th April 2013 http://liberum.eu.bdvision.ipreo.com/NSightWeb_v2.00/Handlers/Document.ashx?i=e7f798d1a60646efb76a03a030054be9
2. Telegraph 30th April 2013 http://www.telegraph.co.uk/comment/telegraph-view/10029144/If-an-energy-crisis-hits-it-will-be-the-companies-that-will-get-shot.html
3. Telegraph 30th April 2013 http://www.telegraph.co.uk/finance/newsbysector/energy/10028587/Inevitable-energy-crisis-raises-risk-for-Centrica-SSE-and-Drax-analyst-warns.html
4. Bloomberg 30th April 2013 http://www.bloomberg.com/news/2013-04-30/u-k-s-582-billion-energy-switch-faces-crisis-liberum-says.html

8. Community Energy – an idea whose time has come

For all the talk of reforming the energy market, in reality the Energy Bill is not about that at all. It's about how to get massive capital intensive projects such as nuclear and offshore wind funded, in a fundamentally uncertain market. It should be about how to make the market fairer. As he Big Six utility companies are suffering from increasing problems with a lack of public trust, more and more people are looking to community energy projects to reduce greenhouse gas emissions and improve energy security while keeping the profits generated within the community to be redistributed for the community's benefit. The success of similar projects in Germany shows that ownership and local control is a key issue in successfully moving to a low carbon economy.

Back in 2000 Germany generated barely 6% of its electricity from renewable sources, mostly hydropower, but twelve years later that figure had soared to 22%, on the back of investment in biofuels, wind and, in particular, solar power. The German government has pledged to generate 35% of the country's electricity needs from renewables by 2020, rising to 80% by 2050. (1) Perhaps the most significant aspect of this energy transformation (or Energiewende) is the almost complete destruction of the country's erstwhile power generation oligopoly. Over many years, four large firms had dominated — E.ON, RWE, EnBW and Sweden's Vattenfall. By 2010, these four once-mighty firms accounted for only 6.5% of renewable electricity generated in Germany — with their role being supplanted by hundreds of local co-op, municipal and small-scale producers that have sprung into existence. This is a democratization of economic power unprecedented in the industrial world. Within the next decade, Germany will have shifted from a coal- and nuclear-powered industrial economy with four large, centralized power producers to a thriving, decentralized system generating power from renewable sources all over the country. (2)

Juliet Davenport CEO of Good Energy says if the UK is going to create its own decarbonised energy market we should be concentrating far more on how that market can benefit consumers. This requires fresh thinking. First, we need to better use customer demand to stimulate investment in green technologies. Second, we need to attract the widest possible range of new entrants to the market as part of the decarbonisation process. The accessibility of renewable technology is key to that. Third, the retail market has to deliver new savings to consumers, through drivers like smarter tariffs linked to the times of the day when renewables are generating electricity. The problem is that these fundamental questions about the very architecture and purpose of our energy market are simply not being asked loudly enough in the corridors of power at a time when they matter the most. (3)

Similarly Reg Platt at the think tank IPPR reckons the UK needs a revolution in its energy markets. Policy makers should be doing everything they can to reign in the power of the Big 6, encourage a diverse range of players in generation and supply, including mutuals and cooperatives, and putting the needs of individuals and communities first. The mechanism enshrined in the Energy Bill for bringing forward investment - Contracts for Difference - is

expected to favour investments by utilities and large-scale developers. Only belatedly has the Government acknowledged that its proposals could make things harder for smaller, independent operators. But no action is yet being taken to increase opportunities for individuals and communities to invest in green power. (4)

Labour's Baroness Worthington says we need to call time on vertically-integrated suppliers. The curious thing about the Government's Energy Bill is that for all the talk of reforming the energy market, in reality it is not about that at all. The Bill didn't originate in answer to the question "*How can we make the market more fair or efficient*?" but rather: "*How can we get massive capital intensive projects such as nuclear and offshore wind funded, in a fundamentally uncertain market*?" The answer - Contracts for Difference (CFDs) raises all sorts of new questions. the latest of which is that if CFDs for certain big projects are made available, and there is to be no continuing obligation on suppliers to buy renewable electricity, how can new entrants and smaller independent companies be sure of getting access to the market? Worthington says requiring everyone to sell power into a pool from which suppliers then buy for their customers would ensure that customers are always getting the best priced power available on the market, not simply the most convenient for the vertically integrated companies to buy (which is all too often their own). (5)

Platt highlights a paper by Matthew Lockwood of Exeter University which argues that the key to understanding why the commitment to decarbonisation across German society is high is ownership Giving people the chance to own a stake of their energy system, rather than leaving them to pay ever increasing prices to companies they mistrust, seems not only fair but a vote-winner. (6)

The latest revelations about how the Big Six are paying very low or even no corporation tax despite reaping significant profits from high domestic bills will prompt further outrage and calls for reform. (7)

Community Renewables

Community owned renewable energy has received remarkable levels of vocal support from ministers and shadow ministers alike as the Energy Bill has progressed through parliament. Greg Barker, for example, was extolling the virtues of community energy projects in Wadebridge Cornwall at the end of April where one in ten householders has signed up to the Wadebridge Renewable Energy Network. (8)

However the Energy Bill currently contains no supportive policy measures and, as it stands, represents a huge threat to this vibrant and rapidly growing sector. It threatens to prevent larger community schemes over 5MW, such as the Westmill Wind Farm Co-operative in Oxfordshire and the Lochcarnan Community Wind Farm in Scotland, from ever happening again. Participating in the proposed "contracts for difference" system would require a high degree of technical knowledge, creating an excessive administrative burden for community projects largely dependent on passionate and dedicated volunteers. Also, with the end of the Renewables Obligation, electricity suppliers will have little incentive to purchase renewable energy from community generators, who have limited bargaining power.

A coalition of co-operatives and civil society organisations, including the National Trust, Friends of the Earth, Greenpeace and the Transition Network are calling for community schemes to be exempted from the new "contracts for difference" regime by allowing projects up to 20MW in size to access the fixed Feed-in Tariff scheme instead. They also want a duty to be placed on the secretary of state to promote new community energy generation and for a Green Power Auction Market to be introduced, where communities would receive a fair rate for their electricity.

The groups are asking supporters to write to their MPs to ask them to sign Early Day Motion 684 (Community Energy) (9)

The benefits of community energy projects go far beyond helping to reduce greenhouse gas emissions and improve energy security. It also keeps the profits generated within the community to be redistributed for the community's benefit, improves energy awareness and influences personal behaviour, and perhaps most important of all, it increases public acceptance of vital renewable energy projects. Recent research commissioned by the Co-operative found that 22% of people would oppose a wind farm near their home. This opposition drops to just 7% if the project is owned by and benefits the community.

Evidence from a Solar Schools project suggests that sometimes a community energy project can stimulate energy efficiency measures. Newnham Croft school in Cambridge installed PV after raising £10,000 with Solar Schools. With the backing of the entire community the project has since been able to carry out a whole host of energy efficiency measures, including installing insulation and efficient lighting, initiatives they had been trying to get off the ground for many years. Environmentalism is now woven inextricably into the school's image of itself, from the pupils to the staff and the management team. Microgeneration turns the current electricity system paradigm on its head. Instead of being passive recipients of electricity, schools, homes and businesses that generate their own become actively engaged in the dynamics of energy production and consumption. (10)

In April a community hydro project in Oxford raised nearly £300,000 from 95 shareholders, three-quarters of whom live in Oxford, in just two weeks. Just a few weeks ago, the village of South Brent in Devon financed a large wind turbine almost entirely with local money. (11) In Edinburgh, another community hydro project has raised almost half of its £313,000 target in just a few weeks. (12) Green energy projects owned by communities are starting to raise serious amounts of money. Deeply rooted, cautiously run and philanthropic energy ventures can raise significant amounts of capital from local investors – even if the promised financial returns are quite limited.

The Manchester-based Carbon Co-op, which launched in 2011, is one of a new generation of co-ops that are now aiming to address the critical issue of climate change by making houses more energy-efficient. The big energy companies dominate the energy-efficiency market because they are forced to by Ofgem, the energy regulator. However, very few people trust the big energy companies anymore. The Carbon Co-op takes a whole house approach to retrofitting and recommends a package of complementary measures such as wall and loft insulation that will improve the energy performance of a house, but because it has a strong ethical strand to its work, it sources materials from local businesses. A community-based co-op can get round the "trust" problems that bedevil the Big Six.

The Birmingham-based Energy Saving Co-op has already retrofitted 50 homes with a target of completing 600 homes by the end of the year, two thousand homes in 2014 and a plan to eventually operate nationally. Financing the retrofit ambitions of both Carbon Co-op and the Energy Saving Co-op is a major challenge though both co-ops and the wider co-op movement are set to benefit from the green deal, the government's flagship programme to make millions of homes more energy-efficient, which was launched this year. (13)

The Scottish Government has a target to reach 500MW of community and locally owned energy projects by 2020. It is ahead of schedule in meeting this target having reached more than 200MW by June 2012. There are now more than 5,000 renewable energy projects in Scotland which provide renewable heat and power for the grid or for local use as well as income for communities. Achieving the 500 MW target could potentially be worth up to £2.4 billion to Scottish communities and rural businesses over the lifetime of those projects. (14)

Smart Meters

Meanwhile, the Government appears to have misread the public mood with regard to smart meters as well. With headlines like "*Big brother to switch off your fridge: Power giants to make millions – but you must pay for 'sinister' technology*" appearing in the Daily Mail (15) and "*Fridges could be switched off without owner's consent to reduce strain on power stations"* in *The Telegraph* (16) smart meters are beginning to look like the latest recruitment tool for UKIP.

While the Mail and Telegraph articles are based on a series of myths (17) Energy Policy lecturer Dave Toke says it is quite possible to fit the right meters to ensure that consumers can set machines automatically. Hence they can use them according to their preferences, which will include them automatically running (or charging car batteries) when the electricity prices are low (when there is plenty of renewable power), and using them less when electricity prices are high (when renewable power is scarce). But, current regulatory arrangements will only allow a 'top-down' system of controlling demand response. In other words the sort of meters being rolled out are the wrong sort which don't allow consumer control of demand response. In addition the way the electricity supply is currently regulated creates perverse incentives that create barriers for a 'bottom-up' system of consumer control. It will be both cheaper and also much more consumer-friendly if the right types of meters are installed and the right sort of electricity regulation is established. (18)

1. New Scientist 24th April 2013 http://www.newscientist.com/article/mg21829142.500-germanys-green-revolution.html
2. Renew Economy 8th April 2013 http://reneweconomy.com.au/2013/germanys-energy-stock-take-more-power-to-the-people-31255
3. Good Energy 15th April 2013 http://www.goodenergy.co.uk/blog/articles/2013/04/15/putting-the-consumer-at-the-centre-of-a-decarbonised-energy-market
4. Energy Desk 30th April 2013 http://www.greenpeace.org.uk/newsdesk/energy/analysis/tory-proposals-shake-energy-sector-don%E2%80%99t-go-far-enough
5. Business Green 12th April 2013 http://www.businessgreen.com/bg/opinion/2260923/the-need-for-real-energy-market-reform

6. The Political Sustainability of the 2008 Climate Change Act, by Mathew Lockwood, IGov February 2013. http://projects.exeter.ac.uk/igov/wp-content/uploads/2013/02/DOWNLOAD-WP2-The-political-sustainability-of-the-2008-Climate-Change-Act.pdf
7. Guardian 16th April 2013 http://www.guardian.co.uk/business/2013/apr/16/big-six-energy-suppliers-tax
8. ITV 26th April 2013 http://www.itv.com/news/westcountry/update/2013-04-26/wadebridge-short-listed-as-top-eco-towns/
9. Guardian 1st May 2013 http://socialenterprise.guardian.co.uk/social-enterprise-network/2013/may/01/amend-energy-bill-community-schemes
10. Energy Desk 9th April 2013 http://www.greenpeace.org.uk/newsdesk/energy/analysis/how-do-you-create-energy-energy-efficiency
11. Guardian 29th April 2013 http://www.guardian.co.uk/environment/2013/apr/29/community-raising-money-green-energy
12. http://www.harlawhydro.org.uk/
13. Guardian 29th April 2013 http://socialenterprise.guardian.co.uk/social-enterprise-network/2013/apr/29/energy-coops-cutting-household-bills-carbon
14. Click Green 29th April 2013 http://www.clickgreen.org.uk/news/national-news/123889-scotland-ahead-of-schedule-on-community-renewable-energy-targets.html
15. Daily Mail 27th April 2013 http://www.dailymail.co.uk/news/article-2315863/Big-brother-switch-fridge-Power-giants-make-millions--pay-sinister-technology.html
16. Telegraph 28th April 2013 http://www.telegraph.co.uk/earth/energy/10023508/Fridges-could-be-switched-off-without-owners-consent-to-reduce-strain-on-power-stations.html
17. Business Green 29th April 2013 http://www.businessgreen.com/bg/feature/2264803/time-to-chill-out-six-myths-about-smart-fridges-and-smart-meters
18. Dave Toke's Green Energy Blog 28th April 2013 http://realfeed-intariffs.blogspot.co.uk/2013/04/give-consumers-not-big-brother-control.html

9. The Crazy World of Plutonium Management

As the Nuclear Decommissioning Authority (NDA) prepares to give its recommendation on what should happen to the world's largest stockpile of civil plutonium, two armed ships with a cargo of MOX fuel set off to travel to the other side of the globe to a country where most reactors are closed, and in the US a MOX fuel fabrication facility is more than three years behind schedule and $3 billion over budget. Just another month in the crazy world of plutonium management.

The NDA announcement could come sometime during May. The government has previously said its preferred option is to convert the weapons-useable plutonium into so-called mixed oxide fuel, or MOX, for use in new reactors. However two alternative proposals are also being considered from GE Hitachi, the US-Japanese joint venture, and Canada's Candu.

Under the proposal, from GE Hitachi, the plutonium would be burnt in one of its fast breeder Prism reactors to produce electricity. GE Hitachi has promised to build the twin reactors without any public subsidies and charge only for the amount of plutonium processed. The EC-6 reactor built by Candu would still require the building of a MOX plant. The design of both reactors would still need to be licensed in Britain. (1) (See plutonium page http://www.no2nuclearpower.org.uk/reprocessing-plutonium/plutonium/)

Armed Ships

Meanwhile two Barrow-registered nuclear ships have set sail from France with a consignment of plutonium MOX fuel to Japan. The armed nuclear ships Pacific Heron and Pacific Egret belong to Pacific Nuclear Transport Ltd (PNTL). The consignment of plutonium fuel – in the form of 20 MOX fuel assemblies containing over half a tonne of plutonium was fabricated some 3 years ago by AREVA, and should have been delivered to Takahama power station – owned by Kansai Electric Power Company (KEPCO) – in 2011, but the shipment was postponed after the infamous tsunami and the melt-down of the Fukushima reactors.

KEPCO is reported to be undecided as to whether the MOX fuel will ever be used, so this foolhardy shipment exposes the absurdity of an industry prepared to transport a dangerous cargo of unwanted MOX –defined by the International Atomic Energy Authority (IAEA) as 'direct-use nuclear weapons material' – through increasingly troubled waters. (2) The shipment left the port of Cherbourg in northern France on 17th April and will go round the Cape of Good Hope and then through the south-west of the Pacific Ocean. (3)

US Plant 3 years late and $3bn overbudget

A MOX fuel fabrication facility is under construction at the US Department of Energy's (DOE's) Savannah River Site in South Carolina. It will use weapons-grade plutonium to fabricate MOX fuel for use in power reactors. DOE's budget proposal for fiscal 2014, which begins October 1 seeks a 27% cut in funding for the MOX facility, which is $320 million in the current fiscal year.

The General Accountability Office (GAO) says the project is more than three years behind its 2016 completion deadline and is also now expected to cost $3 billion more than expected. The GAO said the project's price tag had ballooned to $7.7 billion. In its budget request, the Obama administration wrote that its high costs "*may make the project unaffordable*" and pledged to look for different ways to dispose of plutonium. (4)

Plutonium Swap Shop

A Government plutonium swap-shop arrangement is set to increase the UK stockpile and turn Sellafield into dumping ground for plutonium no longer wanted by overseas customers. In a press release of 23rd April, DECC gave permission for the NDA to arrange title swaps and transfers for some of the 24 tonnes of foreign-owned plutonium currently held in the obscenely large and dangerous stockpile accumulated over the years through Sellafield's reprocessing operations. The transfers will result in some 3 tonnes of foreign plutonium (including material of German and Dutch origin) being added to the UK-owned stocks, and just over half a tonne of German plutonium being transferred directly into Japan's existing 16-tonne stock already stored at Sellafield. (5)

DECC says these swaps allow the UK to gain national control over more of the civil plutonium located here and avoid the need to physically transport separated plutonium which requires significant security measures. (6)

---

1. FT 29th April 2013 http://www.ft.com/cms/s/0/8ea1d8d2-b0bc-11e2-9f24-00144feabdc0.html
2. CORE Press Release 12th April 2013 http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=315
3. Reuters 18th April 2013 http://www.reuters.com/article/2013/04/18/us-areva-mox-japan-idUSBRE93H0EO20130418
4. San Francisco Chronicle 17th April 2013 http://www.sfgate.com/news/article/Federal-regulators-MOX-plant-making-good-progress-4441513.php
5. CORE 23rd April 2013 http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=316
6. DECC 23rd April 2013 https://www.gov.uk/government/news/plutonium-deal-brings-security-benefits

10. Urenco

George Osborne is eyeing a privatisation windfall of up to £3bn after ministers confirmed the sale of the UK's one-third stake in Urenco, the uranium enrichment company. (1) It has been under discussion for years but the sale is likely to be anything but straightforward. Urenco operates in one of the most sensitive parts of the nuclear industry: enriched uranium is used in civil power plants but also in atomic weapons, so any change in ownership will need to be tightly regulated to ensure security interests are protected. All three shareholder groups need to agree. The UK government, which owns a third of the company, first began to pursue a sale in 2007, but this was blocked by the Dutch government, which also owns a one third stake. Today, however, the economic crisis in the eurozone has prompted its owners to explore all ways to reduce debt and raise much-needed cash. RWE and Eon, the German utilities which jointly own the remaining third of the company, have wanted to sell their stake in Urenco since the German government decided to abandon atomic power. (2)

Some industry experts are questioning the decision to sell and say potential buyers could face challenges. The estimated £3bn price tag might put Urenco out of reach for many companies. And an asset that will require a degree of state control for security reasons cannot be expected to pass seamlessly into private ownership, according to one analyst. Enrichment technology is "*as sensitive as it comes*" in the nuclear industry, according to George Borovas, partner and head of international nuclear projects for global law firm Pillsbury Winthrop Shaw Pittman. Transfer of such technology is therefore restricted based on national laws and export controls, as well as international treaties and bilateral agreements. "*An important question for private investors will be how they can best perform due diligence and oversight over their potential acquisition while complying with these laws and international agreements*," Borovas said.

1. Independent 23rd April 2013 http://www.independent.co.uk/news/business/news/britain-says-urenco-stake-sale-goes-ahead-8583730.html
2. FT 22nd April 2013 http://www.ft.com/cms/s/f486aa36-ab55-11e2-ac71-00144feabdc0.html