



No.48 March 2013

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# 1. End of the Renaissance?

Could February 2013 go down in history as the month the nuclear renaissance in the UK finally died? Or is the Government so desperate to save face that it will agree to allow EDF to fleece electricity consumers for as much as it takes?

With negotiations over the guaranteed price which EDF hopes to receive for Hinkley Point C electricity dragging on, and news that the Government is considering guaranteeing prices for 40 years rather than the expected 20, there now seems to be a distinct possibility the talks might fail to reach agreement. Added to that, the European Commission might take up to two years to decide on whether the Government's proposals constitute illegal State Aid. As one analyst put it, "*Hinkley C has a whiff of dead parrot about it*".

First, let's remind ourselves that in 2008 Steve Thomas, Professor of Energy Policy at Greenwich University predicted that nuclear companies would eventually insist on receiving subsidies to build new reactors, and that after five years pursuing "*a strong nuclear agenda*", the government would be forced to drop its refusal to give subsidies or abandon its nuclear ambitions. (1)

EDF's chief executive said the group would walk away from building new nuclear plants unless the government can guarantee profitability. The Government, on the other hand, says it will abandon talks with EDF if the burden on the consumer is too high. (2) Ed Davey says he will not do a deal to fund new reactors "*at any price*" as, according to *The Express*, fears mount that - interested utilities cannot afford to build them. (3)

EDF is under such pressure at home, it simply cannot afford to accept a price which would risk it losing money. So it is playing hardball in the negotiations. The state-controlled French nuclear generator is weighed down by debt and is expected to see a sharp fall in earnings this year as France's economic problems take their toll. (4) The Company has €39.2bn of debt, up from €33.3bn at the end of 2011, and analysts say its credit rating could suffer if it is forced to take 100% of the UK nuclear investment on to its balance sheet. (5) EDF is trying to reduce its interest in Hinkley to as little as 51%. Rather than just replacing Centrica, which had an option of taking a 20% stake in the joint venture, EDF wants to sell up to 49% perhaps to the Chinese. For its part, the Government is desperate for the project to go ahead, but not at any price, so there is now a real chance the deal will fall apart.

*The Times* even went as far as to say that talks between EDF Energy and the Government have broken down and the stand-off could scupper Hinkley C and wreck Britain's new-build programme. The Government downplayed these fears. EDF is insisting on making a return of 10% on its £14 billion investment, which it argues is the minimum required to make the Hinkley project viable, but the Treasury is refusing to sanction a subsidy allowing a return of more than 8%. A failure to agree a deal would be a disaster for other developers, which are awaiting the outcome of the subsidy talks before deciding whether to press ahead with their own plans. EDF Energy is seeking a fixed price of just under £100 per megawatt hour (MWh) for the electricity that the twin reactors at Hinkley would generate, about twice the present wholesale market rate, to ensure a 10% return. (6) Apparently the Treasury's opening offer was only £80/MWh. (7)



The government is launching a last-ditch attempt to solve the disagreements by proposing to guarantee subsidies for up to 40 years rather than the originally expected 20 years. In order to keep the guaranteed wholesale cost of each unit of energy below the politically crucial figure of £100 /MWh, the Government is proposing to double the length of the contracts. *“To build the full 16GW (gigawatt) at the same price would cost £250bn over 40-year contracts, and over 30-year contracts £150bn,”* said Tom Burke, a founding director of the environmental campaign group E3G. (8)

The Government is keeping its fingers crossed that although the cost of the first new reactors at Hinkley will be very high, for subsequent projects the cost could fall. (9) But that still means consumers will be paying £50 billion extra to build Hinkley C. (10)

Labour MP for Newport West, Paul Flynn, said on Twitter: *“Ed Davey says there will be nuclear subsidies – enormous ones. But it’s a secret until it is too late to change.”* Britain is *“being secretly seduced into a hideous nuclear black hole that could rob us for 50 years,”* he added. (11)

RWE npower warned ministers not to seal a long-term subsidy deal with the nuclear industry behind the backs of consumers and saddle them with *“unnecessarily high bills”* for the next 40 years. This *“could force the next three generations of British consumers to pay an unexpected and perhaps unnecessarily high bill for the next 40 years, especially given the track record of delivery of nuclear power stations,”* said Paul Massara, RWE UK's new chief executive. *“We believe UK customers should not be made to write a blank cheque to pay for new power stations,”* he added. (12)

EDF is now demanding a double subsidy, says Dave Toke, senior Energy Policy lecturer at Birmingham University: a high ‘strike price’ for electricity generated and ‘underwriting’ of at least some of the costs of building Hinkley C nuclear power station. EDF is edging towards the outcome that serious nuclear analysts always knew was the only basis for funding nuclear power – by the Government effectively writing a blank cheque. (13) EDF is now reported to be in talks with the Treasury seeking to get the government to underwrite some of the project’s financing, which could make it more attractive to third-party investors such as pension funds or Chinese state-owned nuclear companies. (14) Launched in July 2012, the Treasury's UK Guarantees scheme is intended to underwrite up to £40bn of infrastructure investments. EDF hopes that government guarantees will help persuade some of the world’s largest pension funds to stump up money to help finance Hinkley Point. (15)

### Delay Delay Delay

The various negotiations between the Government and EDF are leading to yet more delays. According to Dow Jones the Government and EDF are unlikely to agree on a strike price before the summer. (16) *New Civil Engineer* says the delays are mostly down to the lengthy Government decision making process and not to a major difference over the level of subsidy. While both parties are close to agreement on price – with a strike price reported between £95 – £99/MWh – the length of the contract has not been decided. (17)

*The Times* says Hinkley faces delays of at least two more years while the European Commission considers whether the subsidies being granted amount to illegal state aid. Ministers had assumed that Brussels would quickly rubber-stamp any deal to allow the company to start



construction. But Scottish and Southern Energy (SSE) claimed that EDF Energy's proliferating demands for Government financial support will force the EC to deliberate until 2015 at least. The commission's decision would be under threat of a judicial review, which would take years to complete. SSE said *"It seems unlikely that a final decision will be made on state aid approval for nuclear subsidy under electricity market reforms before 2015 at the earliest, and potentially much later. This is why gambling our energy and capacity future on nuclear is a high-risk strategy."* (18)

If so-called 'negotiations' drag on between EDF and the Government, leading to a delay in submitting a request to the European Commission for consent to give nuclear a subsidy this could also impact badly on renewables, according to Dave Toke. The very fact that nuclear power is involved produces a massive complication in what would otherwise be a much shorter administrative process. Mark Johnston, Brussels based expert consultant and former FOE EU officer comments that the British Government *"has still not submitted its state aid notifications to EU Commission for consideration and possible veto. For big, complex or controversial, state aid cases the Commission can take 2-3 years to decide, which takes the UK up to and beyond its next general election expected in 2015"*. (19)

Former Labour MP for Nottingham South, Alan Simpson, says the Government is constructing *"a grubby little energy market"* which is completely unsuited to the energy future the world is already moving into. Ministers do not even bother to ask why nuclear power requires subsidies of so much, for so long, or question the spiralling cost trajectory that new nuclear is on. For the public, the cost will be paid in bills – and lives. For less than the cost of a single new nuclear power station, Britain could take seven million households out of fuel poverty. For less than the cost of the bribes that we will pay for reopening mothballed gas power stations we could have a renewable energy programme that would deliver sustainability, and a decentralised system of generation, and distribution that would turn a cartel into an energy democracy. As it stands, hundreds of thousands of the fuel poor will die in this decade, waiting for energy that will not arrive until the next. Millions more will face rising fuel bills for energy set to become less and less affordable, while better choices slide off the table. This is not a programme, it's a road crash. The only sources of energy with genuinely falling cost curves are all being sidelined. (20)

Prof Sue Roaf from the School of the Built Environment at Heriot Watt University says the £240bn which could be spent on subsidies for new nuclear power stations could give £10,000 to each home in Britain to install solar hot water, solar electric systems, controls and new boilers, where necessary with insulation and draught-stripping, and help take every home out of fuel poverty. This would cut energy demand from homes by 50%-75%, save huge amounts in NHS costs and build local businesses and community resilience. (21)

Meanwhile, Roger Milne writing in Utility Week says the Government, in its wisdom, decided that the Hinkley C inquiry need not consider the nuclear waste issue on the grounds that it had been taken care of. But manifestly that is not the case now after Cumbria County Council's decision to pull-out of plans to begin a search for dump site. If the Government approves Hinkley C next month that decision will surely face a judicial review in the light of the hopelessly flawed radioactive waste management policy context. (22)



1. Guardian 12th June 2008  
<http://www.guardian.co.uk/commentisfree/2008/jun/12/nuclearpower.nuclear>
2. Telegraph 5th Feb 2013 <http://www.telegraph.co.uk/finance/newsbysector/energy/9850269/EDF-could-still-exit-from-UK-nuclear-project.html>
3. Express 10th Feb 2013 <http://www.express.co.uk/finance/city/376775/UK-nuclear-plans-flicker-over-cost>
4. Times 9th Feb 2013 <http://www.thetimes.co.uk/tto/business/columnists/article3683259.ece>
5. FT 14th Feb 2013 <http://www.ft.com/cms/s/113bb614-76b1-11e2-8569-00144feabdc0.html>
6. Times 12th Feb 2013  
<http://www.thetimes.co.uk/tto/business/industries/naturalresources/article3685179.ece>  
See also: Business Green 12th Feb 2013  
<http://www.businessgreen.com/bg/news/2243106/government-denies-edf-strike-price-talks-have-stalled>
7. FT 14th Feb 2013 <http://www.ft.com/cms/s/113bb614-76b1-11e2-8569-00144feabdc0.html>
8. Guardian 18th Feb 2013 <http://www.guardian.co.uk/environment/2013/feb/18/nuclear-power-ministers-reactor>
9. Telegraph 19th Feb 2013 <http://www.telegraph.co.uk/news/uknews/9879257/Government-drawing-up-ludicrous-40-year-contracts-to-persuade-power-companies-to-go-nuclear.html>
10. Dave Toke's Blog 14th Feb 2013 <http://realfeed-intariffs.blogspot.co.uk/2013/02/hinkley-c-could-cost-consumers-50.html>
11. Morning Star 19th Feb 2013 <http://www.morningstaronline.co.uk/news/content/view/full/129646>
12. Guardian 20th Feb 2013 <http://www.guardian.co.uk/business/2013/feb/20/rwe-npower-nuclear-subsidies-warning>
13. Dave Toke's Green Energy Blog 12th Feb 2012 <http://realfeed-intariffs.blogspot.co.uk/2013/02/edf-demands-double-subsidy-from.html?m=0>
14. FT 12th Feb 2013 <http://blogs.ft.com/westminster/2013/02/ministers-mull-extra-support-for-new-nuclear-at-hinkley-point/>
15. Telegraph 12th Feb 2013  
<http://www.telegraph.co.uk/finance/newsbysector/energy/9863994/EDF-eyes-UK-government-help-for-nuclear-reactor.html>
16. Fox Business 11th Feb 2013 <http://www.foxbusiness.com/news/2013/02/11/decision-on-uk-nuclear-plans-delayed/>
17. New Civil Engineer 14th Feb 2013 <http://www.nce.co.uk/news/energy/politicians-delay-hinkley-c/8642670.article>
18. Times 22nd Feb 2013  
<http://www.thetimes.co.uk/tto/business/industries/utilities/article3695520.ece>
19. Real Feed-in Tariffs 21st Feb 2013 <http://realfeed-intariffs.blogspot.co.uk/2013/02/renewables-face-delays-as-nuclear-costs.html>
20. Morning Star 22nd Feb 2013 <http://www.morningstaronline.co.uk/news/content/view/full/129792>
21. Guardian 24th Feb 2013 <http://www.guardian.co.uk/environment/2013/feb/24/nuclear-energy-safer-cleaner-healthier-uk>
22. Utility Week 5th Feb 2013 [http://www.utilityweek.co.uk/blog/view\\_entry.asp?id=194553](http://www.utilityweek.co.uk/blog/view_entry.asp?id=194553)



## 2. Time to Call a Subsidy, a Subsidy

A Backbench Business debate in the House of Commons raised the whole question of nuclear subsidies yet again on 7th February 2013.

A cross party group of MPs tabled the motion which said despite the Government's 'no public subsidy' policy, negotiations between DECC and EDF Energy to fix the strike price for Hinkley C are going on in advance of the legislation on Energy Market Reform. The MPs called on the Government to pause the process while the Public Accounts Committee examines whether the Contract for Difference being offered to new nuclear offers genuine value for money. The MPs were Martin Horwood, Mike Weatherley, Caroline Lucas, Martin Caton, Andrew Stunell, Zac Goldsmith, Mike Weir, Andrew George, and Tessa Munt. (1)

Mike Weatherley MP (Conservative Hove) set out in advance why further taxpayer support to this sector should be opposed. The Contract for Difference is a 'subsidy by any other name' which shifts the notoriously high economic risk from nuclear corporations to consumers. Negotiations between the Government and EDF over Hinkley C are "outrageous", behind closed doors, and directly in contravention of the Coalition commitment. Any deal would wholly pre-empt the current Energy Market Reform legislation and the proper democratic process of Parliamentary scrutiny." (2)

Martin Horwood MP (Liberal Democrat Cheltenham) said the Government should stick to the Coalition Agreement promise not to subsidise new nuclear power. He raised concerns over the transparency of negotiations between DECC and EDF to fix the strike price in advance of legislation on energy market reform. EDF is "*trying to pull a fast one on British energy bill payers, taking a subsidy designed for clean, green, new, emerging competitive technologies with falling prices and claiming it for a 56-year-old industry with precious little competition and a continuing history of spectacular cost over-runs for which we stand to pick up the bill.*" (3)

Joan Walley, the Labour chair of the Environment Select Committee, said there was a "*complete lack of transparency*" because of commercial confidentiality agreements with energy firms. "*Is new nuclear going ahead with or without public subsidy? I think the plain truth is we have no way of telling,*" she told MPs. (4)

Caroline Lucas MP (Green, Brighton Pavilion) says it has become increasingly clear that the government's introduction of a carbon price floor and other measures in its forthcoming Electricity Market Reform (EMR) will result in huge windfall handouts for nuclear generators. It's time to ditch the doublespeak and state the obvious: this is a subsidy by another name. She says the scale of the proposed investment at Hinkley is vast and the duration of the contract is long. At a strike price of £100/MW and a 30 year contract under EMR, this would require a subsidy of £1 billion a year above today's wholesale electricity price – meaning £30 billion going straight from British households and businesses to EDF. If the 16GW of new nuclear anticipated by the Energy Minister Ed Davey were to be financed on similar terms, it would cost householders and businesses



£150 billion by 2050. The government should halt the nuclear contracting process and allow the Public Accounts Committee to examine whether the public subsidy being offered for new nuclear power through EMR is really the right solution to deliver an affordable, sustainable and secure energy future. (5)

Paul Flynn (Labour Newport West) asked whether the Secretary of State was able to provide an assurance that there will be no subsidies to nuclear power without the full knowledge and consent of this House?

Mr Davey responded saying *"Our aim is for a broadly standardised approach to contracts for difference that will allow for comparability between technologies and the introduction of competition for CFDs. I do not think that what is needed is a line-by-line comparison of the terms of each contract. That is not what our policy says or requires. In fact, there are likely to be variations in CFD designs between one technology and another, and perhaps also between different projects within the same technology. What is important is that the terms agreed deliver a similar result across technologies and projects, and that they result in a proper allocation of risk. In addition, each contract will need to deliver value for money for the consumer and be compatible with state-aid rules. A contract with a nuclear developer that does those things would be compatible with our no-subsidy policy."* (6)

MPs are angry, said *The Guardian*, about the government's changing rhetoric on subsidies. Since the 2010 promise there would be *"no public subsidy"*, ministers have modified it to say no *"unfair"* subsidies – wording intended to cover support for a range of technology. This month the energy secretary, Ed Davey, admitted to MPs the funding mechanism could differ between technologies and even individual projects. Paul Flynn said *"He [Davey] is saying there will be a subsidy. Perhaps an enormous subsidy. But you, parliament and the public, will not know what it is until it is too late to change."* (7)

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1. Dave Toke's Green Energy Blog 6th Feb 2013 <http://realfeed-intariffs.blogspot.co.uk/2013/02/get-your-mp-to-support-motion-against.html>
  2. Politics Home 7th Feb 2013 <http://centrallobby.politicshome.com/latestnews/article-detail/newsarticle/mike-weatherley-mp-the-nuclear-option/>
  3. Engineering & Technology 7th Feb 2013 <http://eandt.theiet.org/news/2013/feb/nuclear-subsidy.cfm>
  4. BBC 7th Feb 2013 <http://www.bbc.co.uk/news/uk-politics-21374879>
  5. Politics Home 7th Feb 2013 <http://centrallobby.politicshome.com/latestnews/article-detail/newsarticle/caroline-lucas-mp-enough-of-the-doublespeak-this-is-a-subsidy-by-another-name/>
  6. Hansard 7th Feb 2013  
<http://www.publications.parliament.uk/pa/cm201213/cmhansrd/cm130207/debtext/130207-0002.htm#13020759000001>
  7. Guardian 18th Feb 2013 <http://www.guardian.co.uk/environment/2013/feb/18/nuclear-power-ministers-reactor>



### 3. The Liberal Democrats' Nuclear Tax Bombshell

So Energy Secretary, Liberal Democrat Ed Davey MP is launching a last-ditch attempt to persuade EDF Energy to build new nuclear reactors by proposing to sign contracts guaranteeing subsidies for up to 40 years. (1)

This is the man who, in June 2006, in a document called "Where will Blair hide his nuclear tax bombshell?" declared nuclear power to be unaffordable and unnecessary. He predicted that the Labour Government would attempt to hide the true cost of nuclear power with:

- Guarantees over decommissioning, waste and liability costs
- Skewed carbon prices, underestimating the true carbon cost of nuclear and overestimating the true carbon cost of competitors
- Some form of guaranteed market or price, through super-long term contracts. (2)

What he didn't predict was that he would be the Minister implementing these subsidies.

After the May 2010 General Election, the new Energy Secretary, was Liberal Democrat Chris Huhne, who had spent most of his life forcefully arguing against nuclear power and condemning it as a "*tried, tested and failed technology which carries huge environmental and security risks*". (3)

The coalition agreement noted that the Liberal Democrats have "*long opposed any new nuclear construction*", and will maintain their opposition to nuclear power while permitting the Government to pass laws that make new nuclear construction possible. They will abstain in parliamentary votes. The Tories, on the other hand, are "*committed to allowing the replacement of existing nuclear power stations... provided that they receive no public subsidy*." (4)

A week after the election Chris Huhne's opposition to nuclear power was suddenly all about costs rather than environmental or security risks. He told *The Today Programme* on 13th May 2010 (5) that he may oversee a new wave of nuclear reactor construction, if power companies go ahead without government subsidy. He said if they come up with a feasible plan which genuinely involves no subsidy then this will be put through the national planning process. The key point, Huhne stressed, on which there is agreement within the coalition Government, is the principle there will be no public subsidy.

In December 2011 the first of Ed Davey's predictions came true when Junior Minister Charles Hendry announced that the Government would take title to and liability for intermediate level waste and spent fuel from new nuclear reactors for a fixed price. (6) But it insisted this scheme designed to reduce the amount of money nuclear operators have to set aside and leaving the taxpayer with maximum risk was not a subsidy.





The second of Ed Davey's predictions came true six months earlier when the Finance Bill was passed before the 2011 summer recess. The Bill introduced a carbon floor price to artificially raise the cost of carbon emissions allowances. The way it is designed means EDF Energy will receive a windfall for its existing nuclear reactors. The former Treasury Secretary, Justine Greening MP, argued that the benefits to the existing nuclear sector are likely to be: "an average of £50 million per annum to 2030 due to higher wholesale electricity prices". WWF and Greenpeace think it will be £264 million per year, but even £50 million per year means a £1 billion windfall to nuclear operators. (7) Alan Whitehead MP calculated that EDF will receive £44 billion of free money after extending the life of four of its nuclear stations, and there are probably more life extensions to come. (8)

Now we learn that not only is Ed Davey planning to guarantee the wholesale cost of each unit of new nuclear electricity, but he is planning to do it for as long as 40 years rather than the 20 years originally envisaged. Tom Burke, visiting professor at Imperial and University colleges in London, calculates that EDF would receive £50bn in support from the government over four decades for the two reactors proposed for Hinkley Point in Somerset. MPs are also concerned that the Energy Bill, which is currently going through Parliament will allow future governments to give nuclear power stations more money if needed, without telling parliament. (9)

According to *The Guardian* some MPs are angry about the government's changing rhetoric on subsidies. Since the 2010 promise there would be "*no public subsidy*", ministers have modified it to say no "unfair" subsidies – wording intended to cover support for a range of technology. This month the energy secretary, Ed Davey, admitted to MPs the funding mechanism could differ between technologies and even individual projects.

So, thanks to Ed Davey himself, his third prediction looks likely to come true soon. If the Liberal Democrats had started to implement the alternatives to nuclear power put forward in Ed Davey's 2006 paper when they first took control of the Energy Department, EDF Energy would not have the Government over a barrel in the way they do now. Ed Davey's pledges not to subsidise new reactors were clearly worth about as much as Chris Huhne's protestations of innocence over his speeding ticket. Unfortunately electricity consumers won't be able to send Davey to prison when subsidies to nuclear power start to take money out of our pockets.

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1. Guardian 18th February 2013 <http://www.guardian.co.uk/environment/2013/feb/18/nuclear-power-ministers-reactor>
  2. Where will Blair hide his nuclear tax bombshell? By Ed Davey and David Howarth, Liberal Democrats, June 2006 <http://www.nuclearpledge.com/reports/nuclear-tax-bombshell.pdf>
  3. Daily Mail 14th May 2010 <http://www.dailymail.co.uk/debate/article-1278274/Chris-Huhne-Energy-Secretary-like-having-vegan-charge-McDonalds.html>
  4. Coalition Agreement May 2010 <http://www.cabinetoffice.gov.uk/news/coalition-documents>
  5. BBC Radio 4 Today Programme 13th May 2010 [http://news.bbc.co.uk/today/hi/today/newsid\\_8679000/8679504.stm](http://news.bbc.co.uk/today/hi/today/newsid_8679000/8679504.stm)



6. DECC Press Release 8th December 2011 <https://www.gov.uk/government/news/charles-hendry-written-ministerial-statement-publication-of-new-nuclear-waste-and-decommissioning-financing>
7. Broken Promises: Subsidising the Nuclear Industry, Spinwatch 8th May 2012 <http://www.spinwatch.org/images/stories/NuclearSubsidies.pdf>
8. Alan Whitehead's Blog 3rd Jan 2013 <http://alansenergyblog.wordpress.com/2013/01/03/get-richquick-how-to-get-free-money-in-2013/>
9. Guardian 18th February 2013 <http://www.guardian.co.uk/environment/2013/feb/18/nuclear-power-ministers-reactor>



## 4. Decarbonisation Target

Why is it that the Energy Bill is falling short of expectations for low carbon investors? And why is policy uncertainty still rife? Leaving the complexity around many parts of the Energy Bill aside, a key short term issue is the uncertainty caused by the lack of a 2030 decarbonisation target within the bill. The Conservative MP Tim Yeo and Labour's Barry Gardiner have tabled an amendment for the inclusion of a 2030 decarbonisation target within the Energy Bill. We need policies that make political, environmental and economic sense, this amendment goes some way to offering these, as it would help the faltering economy, and it would create confidence needed to bring investment forward. Importantly, it would also help to reduce energy bills, increase energy security, and tackle climate change. (1)

The UK is putting at risk billions of pounds of investment, tens of thousands of jobs, and the success of its long term clean energy strategy by delaying the introduction of a decarbonisation target for the power sector, according to the Chair of the Committee on Climate Change (CCC) Lord Deben in a letter to Energy and Climate Change Secretary Ed Davey. (2)

The letter, which includes a detailed appendix outlining the CCC's modelling, criticises the Gas Strategy released by the Treasury late last year, arguing that it includes a scenario where the UK power sector averages a carbon intensity of 200g CO<sub>2</sub>/KWh that would lead to a "*significant fall-off in investment in low-carbon power generation after 2020*".

Matthew Spencer, director at Green Alliance think tank, said the CCC's analysis proved "*a high gas, high carbon trajectory would kill the UK infrastructure strategy, because over three quarters of the Treasury's infrastructure pipeline is made up of low carbon projects. Investment in offshore wind dwarfs that in new roads and gas, so our economic interest is to increase investor confidence in these really big projects*".

The other point made in the letter is that Ministers are unnecessarily driving up energy bills for consumers by failing to fully commit to a decarbonisation target. "[Delay] *will adversely impact on supply chain investment decisions and project development, therefore undermining implementation of the energy bill and raising costs for consumers.*" (3)

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1. IGov 27<sup>th</sup> February 2013 <http://projects.exeter.ac.uk/igov/new-thinking-blog-fudging-the-future-why-we-need-a-2030-decarbonisation-target/>
  2. Business Green 27<sup>th</sup> Feb 2013 <http://www.businessgreen.com/bg/news/2251056/lord-deben-chancellor-s-dash-for-gas-would-leave-government-s-green-power-plans-in-tatters>
  3. Guardian 27<sup>th</sup> Feb 2013 <http://www.guardian.co.uk/environment/2013/feb/27/ministers-bills-low-carbon-energy>



## 5. Will the Lights Go Out in 2015?

Alistair Buchanan, the outgoing chief executive of Ofgem, has warned that consumers face higher bills as the UK becomes more reliant on imports. He predicts power station closures could mean a 10% fall in capacity by April this year alone. (1) *"Within three years we will see reserve margin of generation fall from around 14% to below 5%. That is uncomfortably tight,"* says Buchanan. (2)

Ageing and polluting coal-fired power stations are due to close over the next few years because of the Large Combustion Plants Directive which is about cutting releases of sulphur dioxide, nitrogen oxides and particulates (rather than climate change). This has led to predictable calls to keep these power stations open, but they are calculated to kill some 2,000 Britons a year. With nuclear power stubbornly failing to come on-stream and offshore wind slow to get off the ground, the proportion of electricity we get from gas is likely to more than double from the present 30% in just seven years, at a time when its price is expected to increase sharply. (3)

Since Buchanan's warning there has been a slew of press pieces "simplifying" Buchanan's message and predicting energy doom for all imminently. *The Independent*, for example, lists all the technologies that might come to the rescue but won't, such as nuclear (not ready for another decade) offshore wind (likely to be uneconomic) shale gas (possible holy grail but a long time to exploit and develop) leaving gas, probably at a very high price. The message from other newspapers has been similar. (4)

Ofgem's report upon which Buchanan's recent pronouncements are based was published in October last year. Alan Whitehead MP says the report makes as its central "base case" (which predicts a margin of only about 5% of capacity over peak demand in 2015) a scenario which it freely acknowledges *"takes a cautious approach assuming no net imports [of electricity] from continental Europe"*. The "base case" also assumes that no new interconnectors will be built even though they can be commissioned, completed and made operational in a far shorter time frame than the various technologies dismissed by newspapers as incapable of "coming to the rescue". So basically government needs to get on with constructing new interconnectors that will bring the UK up to the European average of interconnectedness - about double our present capacity. Whitehead concludes *"the lights won't go out, and, yes, investment in interconnection could be much cheaper and more productive than either pursuing the will o' the wisp of mass new nuclear generation or of underwriting a massive surge in unabated gas fired power stations to secure long term capacity at the expense of lower carbon energy emissions. And I suppose we can park for now the argument not even mentioned in the Ofgem report that investment in smart grid management and balancing will go a long way towards making a much smaller capacity margin go much further."* (5)

Buchanan also said it is time for a revolution in the way that people save energy if they are to mitigate their soaring utility bills and keep the lights on. He said the Government needed to take action to revive its flagging Green Deal energy efficiency programme. (6)



By the Government's own calculation, by simply taking cost-effective measures we could avoid the need to build 22 power stations, eliminating the capacity crunch. (7)

According to *The Independent* householders have seen their energy bills soar 159% since 2004, to an average of more than £1,400. When the average annual bill hits £1,500, there could be wide-scale problems. A study published last year predicted that bills of that level would leave four out of 10 people unable to afford their heating. Already we know that many people – especially the elderly – turn down the heat to save cash. But they do so in cold weather with drastic consequences. The official number of people who died in winter 2011 unnecessarily was 24,000. Only a small number of those deaths can be directly linked to fuel poverty but illnesses are made worse because of inadequate heating. The deaths are the true sign of the failure of the Government and the energy companies to successfully find a solution to consistently rising prices. The cost of improving homes is enormous but the solution is at hand, according to the Energy Bill Revolution. The government could use profits from carbon taxes. With the Treasury expected to rake in £60bn from the taxes over the next 15 years, the cash is clearly there. It's time the government listened to such proposals before it's too late and there are further fuel poverty deaths on its hands. (8)

Scottish and Southern Energy (SSE) say the idea that we should be exploiting the UK's shale gas reserves and building new nuclear power stations to solve our energy problems miss the point entirely. Even if we assume that shale gas can be extracted economically in the UK, this process will take time. Not only that, but it will also have no direct impact on the UK's capacity for generating electricity – it would simply displace other sources. Similarly, deciding to build new nuclear power stations now will do nothing to avoid a capacity crunch in 2017, let alone before then. These are huge projects with long lead times, mammoth up-front construction costs and a recent track record littered with cost-overruns and failed projects. Despite being a mature, 60-year-old technology, it appears from the very fact that the Government is in talks about a price guarantee that it is still unable to stack up financially without public subsidy. At least there is an honest and public debate about the need to provide support to renewables until their costs have reduced and they are able to compete in the market on their own strengths. Why can this not be the case for nuclear? Unambiguous confirmation of uninterrupted support for renewables and swift implementation of a capacity mechanism are what's required to deliver the energy and capacity mix we need for a secure, low-carbon electricity supply at an affordable cost to the consumer. (9)

The head of Scottish Power, Keith Anderson, has urged the Government to turn its attention from nuclear power to wind and gas to keep Britain's lights on. He said with the possibility of blackouts looming as soon as 2015, there was no point rushing to build nuclear reactors because they take about ten years to go online. He urged the Government to concentrate on finalising its electricity market reforms to set new subsidies for gas plants and wind farms, which take much less time to build. (10)

- Electricity production from Finland's new EPR reactor – Olkiluoto 3 – is not now expected to start before 2016 – seven years behind the original schedule. The nuclear



power plant has been plagued by setbacks and disagreements after deadlines to open the facility have been repeatedly missed since the initial opening date of 2009. (11)

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1. BBC 19th Feb 2013 <http://www.bbc.co.uk/news/business-21501878>
  2. Telegraph 19th Feb 2013 <http://www.telegraph.co.uk/finance/newsbysector/energy/9878281/Ofgem-boss-warns-of-higher-energy-prices-in-supply-roller-coaster.html> and <http://www.telegraph.co.uk/finance/comment/9878251/Keeping-Britains-lights-on-will-come-at-a-price.html>
  3. Telegraph 22nd Feb 2013 <http://www.telegraph.co.uk/earth/businessandecology/energyefficiency/9888309/Theres-an-easy-way-to-keep-our-lights-on.html>
  4. Independent 24th Feb 2013 <http://www.independent.co.uk/news/business/comment/margareta-pagano/margareta-pagano-its-time-to-stop-playing-politics-with-our-energy-8508028.html>
  5. Business Green 26th Feb 2013 <http://www.businessgreen.com/bg/opinion/2250474/lights-out-all-out-in-2015>
  6. Times 19th Feb 2013 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3692610.ece>
  7. Telegraph 22nd Feb 2013 <http://www.telegraph.co.uk/earth/businessandecology/energyefficiency/9888309/Theres-an-easy-way-to-keep-our-lights-on.html>
  8. Independent 19th Feb 2013 <http://www.independent.co.uk/voices/commentators/government-must-act-before-there-are-any-more-fuel-poverty-deaths-8501732.htm>
  9. SSE News 18th Feb 2013 <http://news.sse.com/listing/2013/02/blog-gambling-on-shale-and-nuclear-won't-keep-the-lights-on/>
  10. Times 15th Feb 2013 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3688719.ece>
  11. FT 11th Feb 2013 <http://www.ft.com/cms/s/0/c1dd196a-7461-11e2-b323-00144feabdc0.html>



## 6. Energy Scenarios 2020 - 2030

The Nuclear Free Local Authorities (NFLA) has published an analysis of possible future energy mix in the British Isles and the essential role a wide variety of renewable energy sources can provide in ensuring energy security and reasonably priced bills for customers for the period beyond 2020 (1)

Key conclusions include:

- Between 2020 and 2030 DECC sees a sudden levelling off in the growth in renewables, and a rapid growth in nuclear and gas.
- But this is not an inevitable consequence of meeting climate change objectives. By allowing offshore wind to continue growing at the rate it will have grown in the previous decade, and then looking to bring in a batch of other renewable technologies, including solar, geothermal, hydro and wave and tidal; there is scope to move towards a more sustainable renewable energy system which does not require new nuclear power or large-scale gas.
- A key part of such an energy scenario includes a much greater emphasis on energy efficiency measures. As the Friends of the Earth have noted a massive 155 Terawatts per hour (TWh) could be saved through such measures – 140 TWh of which would be at a negative cost.
- The growth of wind energy can continue beyond 2020 and it is possible to cope with variability and intermittency issues.
- UK wood resources would best be used to provide renewable heat or possibly some combined heat and power generation, or there is a danger of moving towards unsustainable use of such resources.
- Biofuels may be able to provide a sustainable fuel for transport, but only if the focus moves away from crops which compete with food for land towards biomass waste. Efforts to produce biofuels from algae appear to require more research research to avoid the need for a large input of water and fertiliser. (2)

NFLA has also published a report (3) on the energy and environmental implications of developing shale gas and extraction in the United Kingdom and Republic of Ireland. The key conclusions of the report are:

- Even if exploiting these new sources of fossil fuels (shale gas) was proven to be “safe”, the impact of burning them on the climate is likely to topple us into the more negative scenarios of global warming put forward by climate change studies.
- Even if some way were found to exploit unconventional gas in a way that meant it was only replacing coal, it would require much stricter regulation than currently appears to be the case.



- There is concern that the inhalation of radioactive radon gas in shale gas could pose serious health risks. The NFLA will monitor further work being undertaken by the UK Health Protection Agency in this area.
- The NFLA believe local authorities will need to build up an in-house expertise in this new area, even if they are only being consulted upon planned developments by central government.
- Evidence from around the world indicates inherent and unacceptably high environmental and health risks associated with shale and Coal Bed Methane (CBM) drilling – whether or not hydraulic fracturing takes place – particularly in relation to groundwater contamination with methane and fracking fluids.
- Developing this industry and the strict regulation it will require is clearly a distraction – in the same way as new nuclear build – which the UK and the Republic of Ireland Governments and the Devolved Governments simply cannot afford to take when they are already trying to develop energy efficiency and renewable energy programmes.
- Green gas, which fits much better with a local decentralised sustainable energy strategy, could provide around the same amount of gas as shale gas is expected to provide, but at a much cheaper price and without the same concerns over environmental damage and degradation. (4)

Meanwhile WWF launched a new report – Putting the EU on Track for 100% Renewable Energy – which shows where Europe needs to be by 2030 in order to reach a fully renewable energy system by 2050. It comes just as the European Commission is beginning to consider post-2020 climate and energy plans. The report shows that by 2030 the EU could use at least 38% less energy compared to a business as usual projection; generate more than 40% of its energy from renewable sources; and by doing both, reduce its energy related greenhouse emissions by 50% compared to 1990 levels. (5)

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1. NFLA Briefing No.106 12th Feb 2013  
[http://www.nuclearpolicy.info/docs/briefings/A220\\_\(NB106\)\\_Energy\\_scenarios\\_2020-2030.pdf](http://www.nuclearpolicy.info/docs/briefings/A220_(NB106)_Energy_scenarios_2020-2030.pdf)
  2. NFLA Press Release 12th Feb 2013  
[http://www.nuclearpolicy.info/docs/news/NFLA\\_PR\\_Energy\\_Scenarios\\_2020-30.pdf](http://www.nuclearpolicy.info/docs/news/NFLA_PR_Energy_Scenarios_2020-30.pdf)
  3. NFLA Briefing No.103 30th Jan 2013: Shale Gas and Fracking: An Energy Solution or an Environmental Nightmare?  
[http://www.nuclearpolicy.info/docs/briefings/A219\\_\(NB105\)\\_Shale\\_gas\\_fracking.pdf](http://www.nuclearpolicy.info/docs/briefings/A219_(NB105)_Shale_gas_fracking.pdf)
  4. NFLA Press Release 30th Jan 2013  
[http://www.nuclearpolicy.info/docs/news/NFLA\\_Shale\\_Gas\\_Report.pdf](http://www.nuclearpolicy.info/docs/news/NFLA_Shale_Gas_Report.pdf)
  5. WWF 13th Feb 2013 [http://www.wwf.org.uk/what\\_we\\_do/press\\_centre/?6478/New-policy-can-put-the-EU-on-track-to-reach-100-renewable-energy](http://www.wwf.org.uk/what_we_do/press_centre/?6478/New-policy-can-put-the-EU-on-track-to-reach-100-renewable-energy)





## 7. Where now for nuclear waste?

West Cumbria has been ruled out of “current” plans for an underground nuclear waste dump, according to energy minister Baroness Verma. Copeland Council had wanted to press on with the search for plans a site, but Baroness Verma confirmed the County was no longer an option and an alternative UK site was being sought. (1)

On 13th February, Baroness Verma held a meeting with Elaine Woodburn, leader of Copeland Council, Cumbrian MPs Jamie Reed and Sir Tony Cunningham, and Allerdale Council leader Alan Smith. She said: *"We were clear that because of the county council's decision not to proceed to the next stage, the current site selection process has ended in west Cumbria. However, it is right that we remain engaged with local leaders on these issues, partly to learn the lessons of managing radioactive waste. We are keen for communities elsewhere in the country to express an interest in joining it."*

After the meeting, Copeland council leader Elaine Woodburn accepted that the current process was now “dead” and that the government would need to start fresh process to identify a possible site. (2)

Local MP Jamie Reed said *"Copeland and Allerdale councils are now in a much stronger position than they were before the County Council voted against its own policies. The MRWS process in Cumbria is dead. The problem of radioactive waste management at Sellafield intensifies as a result and a new process is obviously now required."*

With the Government emphasising that the plans which are dead are the “current” plans, and Jamie Reed talking about Copeland and Allerdale being in a “much stronger position” there is obviously some confusion about what might happen next, and suspicion that a plot is being hatched for the two Borough Councils to go it alone. *The Whitehaven News* quoted a spokesman for Baroness Verma who refused to rule out a new process to find a site for the dump which would allow Copeland and Allerdale to remain as possible candidate communities. *"Currently, they can't re-enter the process,"* he said. *"But I can't pre-empt what the way forward will be. We would need a new process for them to be involved, and I can't say we are going to have one and I can't say we are not going to have one."* (4)

Cumbria County Council cabinet's majority decision not to look for an underground nuclear waste site was formally challenged under its own rules by three county councillors from Copeland seats. They claim the cabinet decision was flawed. (5) The councillors' plea for a reversal of the decision was heard at a heated meeting when they claimed there was no coherent reason for the decision. But call was rejected and the decision stands. (6) The leader of Cumbria County Council robustly defended the decision. (7)

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1. BBC 13th February 2013 <http://www.bbc.co.uk/news/uk-politics-21442318>



2. **Building** 13th Feb 2013 <http://www.building.co.uk/news/sectors/infrastructure/nuclear/cumbria-nuclear-waste-storage-plan-dead/5050290.article>
3. **NW Evening Mail** 13<sup>th</sup> Feb 2013 [http://www.nwemail.co.uk/news/copeland-politicians-meet-government-ministers-to-discuss-future-for-nuclear-waste-1.1034902?referrerPath=news/south\\_lakes](http://www.nwemail.co.uk/news/copeland-politicians-meet-government-ministers-to-discuss-future-for-nuclear-waste-1.1034902?referrerPath=news/south_lakes)
4. **Whitehaven News** 14<sup>th</sup> Feb 2013 <http://www.whitehavennews.co.uk/we-re-in-limbo-says-copeland-council-leader-after-nuclear-waste-meeting-with-minister-1.1035149?referrerPath=home/2.2837>
5. **In Cumbria** 14th Feb 2013 <http://www.in-cumbria.com/county-council-vote-called-in-for-challenge-1.1035117?referrerPath=news-archive>
6. **ITV Border** 19<sup>th</sup> Feb 2013 <http://www.itv.com/news/border/story/2013-02-19/nuclear-waste-repository/>
7. **Westmorland Gazette** 19<sup>th</sup> Feb 2013  
[http://www.thewestmorlandgazette.co.uk/news/10238227.No\\_U\\_turn\\_over\\_nuclear\\_waste\\_rejection\\_as\\_CCC\\_leader\\_slams\\_critics\\_and\\_reveals\\_he\\_won\\_t\\_stand\\_for\\_re\\_election/](http://www.thewestmorlandgazette.co.uk/news/10238227.No_U_turn_over_nuclear_waste_rejection_as_CCC_leader_slams_critics_and_reveals_he_won_t_stand_for_re_election/)



## 8. Bringing Yet More Waste to the ‘Nuclear Slum’

The Nuclear Decommissioning Authority (NDA) has published its Preferred Option paper for the management of the remaining nuclear materials at Dounreay referred to as ‘exotics’. The NDA concluded, as expected that the material should be transported to Sellafield for long term management. The Site Licence Companies at Dounreay and Sellafield will now prepare a Final Business Case and submit this to the NDA Executive around the end of the financial year 2012/13 to enable final approvals of the implementation plans to be take place. Assuming that the business case is approved movement of exotic material will commence around the end of 2014/15. (1)

The material in question is a mixed bag. Some has been irradiated, some hasn’t. In total there are about 26 tonnes of material. None of it is classified as waste – it is either spent fuel or nuclear material. The number of transports will depend on the details of how the material can be loaded while complying with regulatory requirements but it is expected that there would be in the region of 30-40 journeys over a period of around 6 years, commencing probably around 2014/15. The transport mode will vary and will be either by sea or by rail depending on the type of material being transported. (2)

The material includes:

- 13 tonnes of unirradiated plutonium bearing fuels containing about 2 tonnes of plutonium.
- About 1 tonne of unirradiated highly enriched uranium.
- 12 tonnes of spent Prototype Fast Reactor fuel.

Trains have already started moving forty-four tonnes of other material called “breeder material”. This will be moved in about 40 journeys between Scotland and Cumbria over a four or five year period. (3) This material formed the uranium-238 blanket in the Prototype Fast Reactor at Dounreay, so it is not thought to be terribly radioactive, but there is concern the plutonium formed by the neutron bombardment of the uranium could be a prime target for theft.

During the period 2014 to 2018 while both types of materials are being moved to Sellafield there could be as many as 15 transports per year. A campaign group has been set up in the Highlands in a bid to stop these trains. A meeting will be held at Dingwall in March to gather public views about the journeys. (4)

Meanwhile, the 10 remaining boilers from the former Berkeley nuclear power station are due to be removed and sent for recycling to Sweden in a £15m deal with Swedish firm Studsvik. The same company has already spent £8m on removing and recycling five boilers from the Gloucestershire site, each of which weighs some 300 tonnes. The Magnox Berkeley site is the first commercial nuclear power station in the UK to be



decommissioned. Each redundant heat exchanger is 22m (72ft) long and was used as part of the electricity production at the nuclear power station, which ceased operation in 1989. The boilers are shipped – via Sharpness Dock – to Studsvik’s processing facility near Nyköping in Sweden. Five other boilers were removed from the site in 2012. The final boiler will be moved from the site in the middle of March. (5)

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1. NDA 21st Feb 2013 <http://www.nda.gov.uk/news/dsrl-exotics-preferred-option.cfm>
  2. Exotic Fuels and Nuclear Materials Preferred Option, NDA February 2013 <http://www.nda.gov.uk/documents/upload/Exotic-Fuels-and-Nuclear-Materials-Dounreay-Prefered-Options-February-2013.pdf> See also: Exotic Fuels and Nuclear Materials – Dounreay Credible Options, February 2012 <http://www.nda.gov.uk/documents/upload/Exotic-Fuels-and-Nuclear-Materials-Dounreay-Credible-Options-February-2012.pdf>
  3. Carlisle News and Star 22nd November 2011 <http://www.newsandstar.co.uk/news/nuclear-fuel-to-be-taken-by-train-through-cumbria-from-scotland-1.899495?referrerPath=/news-round-up-1.50001>
  4. Press & Journal 22nd Feb 2013 <http://www.pressandjournal.co.uk/Article.aspx/3133202>
  5. BBC 22nd Feb 2013 <http://www.bbc.co.uk/news/uk-england-gloucestershire-21545115>