



**No.31 July/August 2011**

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**1. All systems go for nuclear renaissance? Perhaps not**

With EDF being given permission to begin pre-construction work at Hinkley in Somerset, it might appear that the UK's nuclear renaissance is about to move into full swing. But problems are beginning to pile up for the nuclear industry. John Vidal, writing in *The Guardian* estimates there is only a 50:50 chance that Hinkley C will go-ahead. What we might be about to witness is the construction of nothing more than a very large hole. EDF won't just send in a few bulldozers and put a fence around the Hinkley site. The pre-construction work involves clearing 400 acres of land and removal of more soil and rock than at the Olympic site in London. (1)

Centrica is being urged by the City to withdraw from its £4bn commitment to build new nuclear power stations in partnership with Electricité de France (EDF) amid soaring costs and delays at Flamanville in France. Centrica should "*not touch it with a barge pole*" argues Lakis Athanasiou, utilities analyst with Evolution Securities. "*Centrica should not progress new nuclear further, particularly if [the] government is unwilling to take construction risk,*" he says. The Evolution view reinforces concerns expressed by other investment specialists such as Citigroup. (2)

EDF's reputation is facing the risk of meltdown, according to *The Telegraph* as a result of delays and cost escalation at Flamanville. Originally expected to cost around €3.3bn, EDF was still insisting until last year that Flamanville would be ready by 2012. But it was then forced to revise its cost

estimate to €5bn and time to 2014. Now EDF has admitted things have slipped again – now to 2016 and €6bn – at least four years late and €2.7bn over budget. (3)

The only other new nuclear plant being built in Europe is at Olkiluoto in Finland. Areva, like EDF a state-controlled French company, says this will be connected to the grid no sooner than 2013 and costs are now estimated at €5.6bn. That is four years late and €2.6bn over budget. (4)

Suspensions are now growing that EDF is preparing to delay Britain's new plants substantially, having said it will issue a "revised timetable" for the UK in the autumn. It is understood that British officials are now working on the assumption that new nuclear will not arrive in the UK until after 2020. (5) Vincent de Rivaz, EDF Energy chief executive, told *The Times* that Hinkley C would be ready when the UK needs it. Mr de Rivaz said that Britain no longer needed the reactor to be ready by 2018 because the financial crisis and energy efficiency measures have reduced long-term electricity demand. He said that a delay in building the reactor, will not threaten Britain's energy security. (6)

A "frustrating" lack of political will has allowed the timetable for building Britain's new generation of nuclear power stations to slip by "one to two years", according to the chairman of Parliament's Energy Select Committee, Tim Yeo. The accident at Fukushima in Japan in March is one explanation for delays, but Mr Yeo pointed out that an interim report on the lessons for nuclear safety in Britain had already appeared. The Japan-related delay "shouldn't be more than a few months", he said. More important is a hold-up caused by the government itself. The White Paper designed to make it commercially viable to build reactors was published last month, but the necessary legislation will only be introduced next year. (7)

Meanwhile, Chris Huhne admitted to Peers on 19 July 2011 that the UK was unlikely to become a "world leader" in nuclear energy. He gave evidence as part of an inquiry by the House of Lords Science and Technology Committee into the future of nuclear power in the UK. (8)

- (1) Guardian 1<sup>st</sup> August 2011 <http://www.guardian.co.uk/environment/blog/2011/aug/01/hinkley-c-reactor-plans>
- (2) Guardian 25<sup>th</sup> July 2011 <http://www.guardian.co.uk/business/2011/jul/25/centrica-nuclear-power-stations>
- (3) Telegraph 25th July 2011 <http://www.telegraph.co.uk/finance/newsbysector/energy/8658298/EDFs-reputation-faces-risk-of-meltdown.html>
- (4) Guardian 22nd July 2011 <http://www.guardian.co.uk/environment/damian-carrington-blog/2011/jul/22/nuclear-power-cost-delay-edf>
- (5) Telegraph 21<sup>st</sup> July 2011 <http://www.telegraph.co.uk/finance/newsbysector/energy/8650653/Problems-at-EDFs-French-nuclear-site-raise-fears-of-UK-energy-delays.html>
- (6) Times 21<sup>st</sup> July 2011 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3100566.ece>
- (7) FT 7<sup>th</sup> Aug 2011 <http://www.ft.com/cms/s/0/a35ecc10-be7b-11e0-ab21-00144feabdc0.html>
- (8) BBC 19th July 2011 [http://news.bbc.co.uk/1/hi/newsid\\_9541000/9541558.stm](http://news.bbc.co.uk/1/hi/newsid_9541000/9541558.stm)

## 2. Local Energy Revolution strides forward despite lack of Government support

While the costs of new nuclear reactors are rising, those of solar photovoltaics are falling rapidly. (1) One report says costs are falling so fast that by 2013 solar panels will be half of what they cost in 2009. (2) The technology is advancing too. Soon it could be possible to print solar panels onto paper (3) or even paint them onto walls. (4) This technology could be appearing on computer keyboards to power computers when on stand-by by Christmas this year. Ernst & Young's recent report on the Outlook for the UK Solar PV industry points to costs for solar electricity falling so that by 2020 the technology will be economic in the UK without any subsidy. (5)

It will happen well before that in Germany as a direct consequence of the far-sighted decisions they took many years ago. Germany plans to generate 50% of its day-time electricity from solar by 2020 –

with installed capacity of 52 GW. Despite the fact that solar PV has the potential to meet more than 30% of the UK's day-time electricity by 2040, our target for 2020 is just 2.7 GW – not much more than the 2 GW that Germany installed in one month in June 2010. (6) To the Germans the local energy revolution is spelled “j-o-b-s”. (7)

It's still not too late for the UK. There is a growing realisation that solar energy could be the next big thing after the internet. (8) Lots of local authorities and social housing providers are beginning to make the connections between energy-efficiency and micro-generation, tackling fuel poverty and reducing carbon emissions. With feed-in tariffs of up to 43.3p/kWh (plus 3.1p/kWh for each unit of electricity exported to the grid), it is hardly surprising that each week brings news of new projects and plans by local authorities in England to generate their own electricity. (9) There is a huge potential for local economic development through the use of sustainable energy. Energy efficiency installation, advice, local small-scale generation and renewables are all labour intensive businesses rooted in the areas they serve. (10)

Although the Government says it would like to see decentralised and community energy systems such as micro-generation making a contribution to targets, it also says it does not believe they are likely to lead to significant replacement of large scale infrastructure. (11) Others disagree. A groundswell of actions by individual communities led by local authorities can inspire others to follow suit and achieve much higher penetration levels for small-scale renewables and micro-generation than currently envisaged.

Birmingham City Council, for example, has plans to install solar panels on up to 10,000 council-owned homes – jointly funded by the Council energy suppliers and commercial banks. This follows two successful pilot schemes conducted in the City. Under the scheme consumers will pay a levy on their energy bills to repay the loans but should still be paying lower bills after the retrofit. A second phase will involve using the proceeds from the first 10,000 retrofits for a refinancing of the scheme that will deliver funding of £2bn, enough to refurbish 200,000 homes. (12)

Currently the Government is expecting only 2% of electricity to be supplied by small-scale renewable by 2020, (13) and it has excluded solar energy from its Renewable Energy Roadmap. (14) Yet research by the Energy Saving Trust shows that micro-generation could provide around 30-40% by 2050, (15) so we ought to be expecting a much larger contribution in 2020. In Europe the European Photovoltaic Industry Association expects solar energy to be providing 12% of all electricity by 2020. (16) The difference between this 12% and the Government's 2% would be enough to obviate the need to build new reactors. The Chief Executive of National Grid, Steve Holliday, says that 15% of the country's electricity production could come from so called “embedded generation” in homes and offices by 2020 as micro- generation becomes increasingly viable after the £9 billion rollout of “smart meters” for every home in Britain. (17)

The Government has underestimated the potential of solar energy according to energy and climate minister Greg Barker. Solar is now going through an extraordinary stage of development and has potential to be a significant source of energy. Barker's comments were made in response to a report by the Solar Trade Association (STA), which claims the government and its advisers have underestimated the benefits and overestimated the costs of solar energy. Despite these statements, Barker pressed ahead with plans to slash the subsidy given to large-scale solar installations via the feed-in tariff scheme (Fits) – a move that the STA chairman, Howard Johns, claims could “decapitate” or even “destroy” Britain's fledgling solar industry. (18)

Keep up with weekly news about the local energy revolution at <http://www.microgenscotland.org.uk/news.php>

Sign up for weekly e-mail news here: <http://www.microgenscotland.org.uk/enews.php>

NFLA Policy Briefing No.86: Realising an English 'Renewables Revolution' in future energy policy. [http://www.nuclearpolicy.info/docs/briefings/NFLA\\_Policy\\_Briefing\\_86\\_England\\_and\\_renewable\\_energy.pdf](http://www.nuclearpolicy.info/docs/briefings/NFLA_Policy_Briefing_86_England_and_renewable_energy.pdf)

- (1) Argus Media 19<sup>th</sup> November 2010 <http://www.argusmedia.com/pages/NewsBody.aspx?id=730286&menu=yes>
- (2) Guardian 20<sup>th</sup> June 2011 <http://www.guardian.co.uk/environment/2011/jun/20/solar-panel-price-drop>
- (3) New Scientist 12<sup>th</sup> July 2011 <http://www.newscientist.com/blogs/onepercent/2011/07/green-machine-printing-solar-c.html?DCMP=OTC-rss&nsref=online-news>
- (4) Business Green 13<sup>th</sup> July 2011 [http://www.businessgreen.com/bg/news/2093469/sainsbury-s-ikea-eye-dye-sensitised-solar-cells?WT.rss\\_f=&WT.rss\\_a=Sainsbury%E2%80%99s%2C+Ikea+and+others+eye+up+dye-sensitised+cells](http://www.businessgreen.com/bg/news/2093469/sainsbury-s-ikea-eye-dye-sensitised-solar-cells?WT.rss_f=&WT.rss_a=Sainsbury%E2%80%99s%2C+Ikea+and+others+eye+up+dye-sensitised+cells)
- (5) Ernst & Young, UK Solar PV Outlook. June 2011 <http://www.oursolarfuture.org.uk/wp-content/uploads/The-UK-50kW-to-5-MW-solar-PV-market-190611-Final.pdf>
- (6) See <http://www.jonathonporritt.com/blog/why-george-monbiot-completely-wrong-nuclear-power>
- (7) Dissent Magazine 30<sup>th</sup> July 2011 <http://www.dissentmagazine.org/online.php?id=510>
- (8) See <http://sjvceonews.blogspot.com/2011/06/could-renewable-energy-be-next-big.html> and <http://www.seao2.com/solarsphere/ceo.htm>
- (9) Feed-in Tariff Scheme, Energy Saving Trust website accessed 19<sup>th</sup> July 2011 <http://www.energysavingtrust.org.uk/Generate-your-own-energy/Sell-your-own-energy/Feed-in-Tariff-scheme#tarifflevels>
- (10) Leading the Way: How Local Authorities can meet the challenge of climate change, LGA and EST, 2005 <http://www.lga.gov.uk/lga/aio/22002>
- (11) EN1 para 3.3.29 <http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/consents-planning/nps2011/1938-overarching-nps-for-energy-en1.pdf>
- (12) Guardian 3<sup>rd</sup> October 2010 <http://www.guardian.co.uk/environment/2010/oct/03/birmingham-solar-panel-council-proposal> See also Birmingham City Council Press Release 21<sup>st</sup> January 2010 <http://birminghamnewsroom.com/2010/01/birmingham-to-introduce-green-housing-revolution/> and Birmingham City Council Press Release 11<sup>th</sup> July 2011 <http://birminghamnewsroom.com/2011/07/carbon-reduction-targets-are-met/>
- (13) UK Low Carbon Transition Plan, DECC, July 2009. [http://www.decc.gov.uk/assets/decc/white%20papers/uk%20low%20carbon%20transition%20plan%20wp09/1\\_20090724153238\\_e\\_@@\\_lowcarbontransitionplan.pdf](http://www.decc.gov.uk/assets/decc/white%20papers/uk%20low%20carbon%20transition%20plan%20wp09/1_20090724153238_e_@@_lowcarbontransitionplan.pdf)
- (14) Click Green 18<sup>th</sup> July 2011 <http://www.clickgreen.org.uk/opinion/opinion/122349-green-energy-pioneer-says-solar-pv-is-key-technology.html>
- (15) Potential for Microgeneration: Study and Analysis, EST, eConnect, Element Energy, November 2005. <http://www.berr.gov.uk/files/file27558.pdf>
- (16) Business Green 22<sup>nd</sup> July 2009 <http://www.businessgreen.com/bg/news/1803588/-frustrated-solarcentury-sun-shining-european-markets>
- (17) The Times 4<sup>th</sup> December 2009. <http://www.thetimes.co.uk/tto/technology/article2192131.ece>
- (18) Guardian 3<sup>rd</sup> June 2011 <http://www.guardian.co.uk/environment/2011/jun/03/solar-energy-greg-barker>

### 3. Westminster Manoeuvres

After Fukushima 56 MPs signed an Early Day Motion which called upon the Secretary of State to suspend plans for a new nuclear programme in the UK. (1) Signatories included 22 Liberal Democrat MPs and 21 Labour MPs.

As reported in NuClear News No.30 Greenpeace published the results of an exclusive opinion poll which showed that the majority of people – 46% - oppose any future subsidy for the nuclear power industry. Liberal Democrat MPs stood at the last election on a manifesto pledge of opposing new nuclear power and ending public subsidy. When asked how Lib Dem MPs should vote in any future bill on public subsidy for nuclear, 51% said they wanted them to either vote against or abstain from

any future parliamentary vote. Among Liberal Democrat voters, the expectation that their MPs should live up to their manifesto promises was even greater, with just under two thirds of respondents (63%) saying they wanted Lib Dem MPs to either vote against or abstain. Three Liberal Democrat MPs - Stephen Williams, Roger Williams and Mike Crockart – had the opportunity in early June to stick with their election promises when an amendment to the Finance Bill was put before the Public Bill Committee which would rule out future taxpayer subsidy. (2)

The proposed Carbon Floor Price contained in the Finance Bill, will give a £1 billion windfall to existing nuclear power operators mainly EDF Energy. (3) An amendment to clause 77 in the Bill, put forward by Labour MP Nic Dakin, would have challenged this nuclear subsidy via the Carbon Floor Price. When the amendment was first discussed on 9<sup>th</sup> June the Committee ran out of time to vote. (4)

The Bill and amendment were debated again on 5<sup>th</sup> July. Some Liberal Democrat MPs abstained and some stayed away, but not one Liberal Democrat MP rebelled. (5) This was all the more disappointing because *The Guardian* had reported that a group of Liberal Democrat MPs were gearing up to rebel against a section of the finance bill because they believe it gives a subsidy to nuclear power. A large group of Lib Dems were said to be concerned about a clause which hands a large financial windfall to nuclear power and were calling for a "windfall tax" to claw back some of the financial gains they think the nuclear industry stands to make. (6)

Nic Dakin MP pointed out that the Carbon Floor Price means almost £1 billion will be given to the nuclear industry for doing absolutely nothing new. The proposal will add nothing to energy output or Britain's energy security, and there will be no requirement for the companies to invest the windfall in national priorities such as energy efficiency programmes or meeting our renewable energy targets. It will hurt the consumer and fail to deliver our green ambitions. He urged the Government to think again, but to no avail.

The carbon floor price could end up giving climate policies a 'bad name' according to the Institute for Public Policy Research (IPPR). To be introduced in 2013, the tax is intended to encourage investment in low-carbon energy – and raise billions for the Treasury. IPPR estimates that 30,000 to 60,000 more households will be pushed into fuel poverty. The think-tank report also said that because the floor price was announced in the Budget, it would be open to annual review – meaning it would not have the certainty needed by investors looking at putting money into low-carbon energy projects such as wind, wave and nuclear power. (7)

In the debate on the National Policy Statements (NPS) on Energy Martin Horwood MP said he was speaking on behalf of the Liberal Democrat party when he stated their "*clear and unchanged view that nuclear power is unsafe, unaffordable, uninsurable, unpopular, not renewable, not decentralised, not particularly reliable, and not the kind of energy that the greenest Government ever should ever be caught promoting.*"

But only 14 MPs voted against the Nuclear NPS being designated. They were Martin Caton (Lab); Mark Durkan (SDLP); Paul Flynn (Lab); Zac Goldsmith (Con); Mike Hancock (Lib Dem); Kelvin Hopkins (Lab); Naomi Long (Alliance); Caroline Lucas (Green); John McDonnell (Lab); Michael Meacher (Lab); Dennis Skinner (Lab); Andrew Smith (Lab); Hywel Williams (PC); Mike Wood (Lab) and tellers Jeremy Corbyn (Lab) and Mike Weir (SNP).

On the other hand, it's worth noting that only 267 (plus two tellers) voted in favour. So over half of the 650 MPs didn't vote. Apart from the odd Democratic Unionist virtually all of those who voted in favour appear to be Tories. Even Chris Huhne didn't vote in favour.

(1) EDM 1615, <http://www.parliament.uk/edm/2010-12/1615>

(2) Greenpeace Press Release 6<sup>th</sup> June 2011 <http://www.greenpeace.org.uk/blog/nuclear/voters-tell-lib-dems-live-your-promise->

[20110606?utm\\_source=feedburner&utm\\_medium=feed&utm\\_campaign=Feed%3A+greenpeace%2Fuk+%28Greenpeace+UK+Blog%29](http://20110606?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+greenpeace%2Fuk+%28Greenpeace+UK+Blog%29)

- (3) Edie 7<sup>th</sup> June 2011  
[http://www.edie.net/news/news\\_story.asp?id=20066&channel=0&title=Greenpeace+poll+reveals+Lib+Dem+nuclear+anger](http://www.edie.net/news/news_story.asp?id=20066&channel=0&title=Greenpeace+poll+reveals+Lib+Dem+nuclear+anger)
- (4) UK Parliament 9<sup>th</sup> June 2011  
<http://www.publications.parliament.uk/pa/cm201011/cmpublic/finance/110609/am/110609s01.htm>
- (5) UK Parliament 5<sup>th</sup> July 2011  
<http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm110705/debtext/110705-0003.htm>
- (6) Guardian 1<sup>st</sup> July 2011 <http://www.guardian.co.uk/environment/2011/jul/01/lib-dem-rebel-nuclear-power-subsidy>
- (7) Daily Mail 28th June 2011 <http://www.dailymail.co.uk/sciencetech/article-2008892/Green-stealth-tax-encourage-wind-farms-nuclear-power-hit-poor-hardest.html>

#### 4. Electricity Market Reform

Chris Huhne, presented the Electricity Market Reform (EMR) White Paper to Parliament in July. (1) Designed to facilitate the required investment in new low carbon generating capacity, the White Paper proposes four key areas of reform: a carbon price floor, an emissions performance standard, contracts for difference and a capacity mechanism. The carbon price floor was introduced in this year's Budget, whereby an amount is charged for every tonne of carbon produced. The White Paper reiterates that it will come into effect in 2013. The emissions performance standard puts a limit on the amount of carbon any new plants would be allowed to produce. This is likely to be set at 450g per tonne – more than a typical new gas plant emits but less than coal plants produce. (2) The key element of the reforms is a system that guarantees a minimum income stream for nuclear power producers. The government plans to introduce a “contract for difference” (CFD), which tops up prices to an agreed level. Energy executives said they needed this guarantee before agreeing to build any new reactors. (3) The CFDs will also apply to offshore wind. The white paper will not set out the size of the subsidies; they will be negotiated by energy executives and the government

The final element is the capacity mechanism, whereby a minimum amount of electricity would always be available to the market to avoid widespread blackouts. A centralised body would buy up electricity, to allow for any potential shortfalls. This could then be tendered out to utilities. How this system will work is not yet clear. (4)

The introduction of a carbon price floor (CPF), one of the pillars of the EMR, from 1st April 2013 will gift huge windfall handouts to existing nuclear and renewable generators – for doing nothing differently at all. Responding to a question from Liberal Democrat MP Martin Horwood, the Treasury's Justine Greening admitted that existing nuclear will benefit from the higher wholesale electricity prices resulting from the CPF to the tune of £50 million a year to 2030.

There can be no doubt that EMR offers a subsidy for nuclear. Even Conservative MP Tim Yeo, chair of the energy and climate change committee, has asked the government to be “upfront” about the fact. Furthermore, calls for a windfall tax on nuclear alongside the carbon floor price to claw back money for the taxpayer have fallen on deaf ears. This all makes a mockery of the coalition pledge to provide no public money for new nuclear build.

With Eon's recent announcement that its electricity prices would rise by 11.4% and gas by 18.1% from September 13, four out of the six big utilities have now raised their prices for this winter. EDF Energy and Npower have yet to change their rates. (5) On top of this the government wants the “big six” to spend £200bn on renewing Britain's entire energy infrastructure over the next decade. The cost of this ambitious scheme to replace lost generating capacity and cut carbon dioxide emissions will be passed on to consumers in the form of even higher bills. (6)

All this means higher energy costs are likely to become one of the most sensitive issues in British politics. Higher energy bills place a disproportionate burden on the old and the poor, while in the business sector, manufacturing industry is most vulnerable. The carbon price floor will raise electricity costs for energy-intensive companies by 10% by 2020, according to Roger Salomone, energy adviser at EEF, the manufacturers' organisation. An increase of that order is going to be very significant for energy-intensive companies and for manufacturing in general, he said.

Credit Suisse says the Market Reforms will bring in an extra £24 billion for power companies between 2013 and 2020, but their costs will only rise by £17 billion, giving them a windfall of £7 billion. (7)

Coverage in the press about the impact of the EMR on people's bills has been confusing. There doesn't even seem to be any agreements over how much needs to be spent. The Government says £110bn needs to be spent on the equivalent of 20 new large power stations and upgrades to the grid, whereas Ofgem talks about the need for an expenditure of £200bn.

£112.3bn Renewable heat & energy (presumably including nuclear)  
£39.5bn transmission & distribution  
£1.7bn Gas import & storage  
£19.6bn reducing pollution from fossil fuel plants  
£11.3 smart meters  
£16bn energy efficiency (8)

Ofgem has estimated that the average household energy bill is likely to rise by £500 by 2030. (9) Huhne said in *The Guardian* it's more likely to be £160-£200, but later seemed to claim that electricity bills (rather than energy bills) would go up only £160 compared with £200 if nothing is done. (10) The fact is that energy prices have been increasing faster than inflation for some time, and increases will probably stay ahead of inflation in the future. (11) The Telegraph calculates that the £200bn which Ofgem says needs to be spent by 2020 works out at £8,000 per household or £800 per year. (12)

Caroline Lucas MP says "*what has become increasingly clear is that, beneath the overly complex design of the EMR, is a system specifically designed to promote nuclear power*". (13)

A letter to the FT signed by ten people including Steve Holliday, Chief Executive of the National Grid and John Sauven Executive Director of Greenpeace said the impact on consumers' energy bills of Electricity Market Reform can be managed provided the government ensures energy efficiency and demand response measures are at the heart of the reforms. This should include a commitment that long-term contracts are offered for electricity demand reduction and not just electricity supply. (14)

- (1) DECC 12<sup>th</sup> July 2011  
[http://www.decc.gov.uk/en/content/cms/legislation/white\\_papers/emr\\_wp\\_2011/emr\\_wp\\_2011.aspx](http://www.decc.gov.uk/en/content/cms/legislation/white_papers/emr_wp_2011/emr_wp_2011.aspx)
- (2) Independent 10<sup>th</sup> July 2011 <http://www.independent.co.uk/news/business/news/higher-bills-pay-for-electricity-market-reform-2309839.html>
- (3) Sunday Times 10<sup>th</sup> July 2011  
[http://www.thesundaytimes.co.uk/sto/business/energy\\_and\\_environment/article666351.ece](http://www.thesundaytimes.co.uk/sto/business/energy_and_environment/article666351.ece)
- (4) Independent 10<sup>th</sup> July 2011 <http://www.independent.co.uk/news/business/news/higher-bills-pay-for-electricity-market-reform-2309839.html>
- (5) Times 5<sup>th</sup> August 2011 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3116196.ece>
- (6) FT 21st July 2011 <http://www.ft.com/cms/s/0/55481498-b366-11e0-b56c-00144feabdc0.html>
- (7) Independent 10<sup>th</sup> July 2011 <http://www.independent.co.uk/news/business/news/higher-bills-pay-for-electricity-market-reform-2309839.html>
- (8) Sunday Times 10<sup>th</sup> July 2011  
[http://www.thesundaytimes.co.uk/sto/business/energy\\_and\\_environment/article666351.ece](http://www.thesundaytimes.co.uk/sto/business/energy_and_environment/article666351.ece)

- (9) Independent 10<sup>th</sup> July 2011 <http://www.independent.co.uk/news/business/news/higher-bills-pay-for-electricity-market-reform-2309839.html>
- (10) Telegraph 10th July 2011 <http://www.telegraph.co.uk/earth/environment/8628788/Green-energy-gives-power-firms-7bn-windfall.html>
- (11) FT 10th July 2011 <http://www.ft.com/cms/s/0/37e470ac-ab11-11e0-b4d8-00144feabdc0.html>
- (12) Guardian 10<sup>th</sup> July 2011 <http://www.guardian.co.uk/business/2011/jul/10/energy-market-reform-fuel-bills>
- (13) Telegraph 12<sup>th</sup> July 2011 <http://www.telegraph.co.uk/finance/comment/damianreece/8633514/The-nuclear-option-may-keep-our-lights-on-but-at-what-cost-to-the-UK.html>
- (14) Left Foot Forward 16<sup>th</sup> July 2011 <http://www.leftfootforward.org/2011/07/caroline-lucas-coalition-subsidy-for-new-nuclear-political-fallout/>
- (15) FT 10th July 2011 <http://www.ft.com/cms/s/0/37e470ac-ab11-11e0-b4d8-00144feabdc0.html>
- (16) Telegraph 12<sup>th</sup> July 2011 <http://www.telegraph.co.uk/finance/comment/damianreece/8633514/The-nuclear-option-may-keep-our-lights-on-but-at-what-cost-to-the-UK.html>
- (17) FT 8<sup>th</sup> July 2011 <http://www.ft.com/cms/s/0/6c4537e8-a8f8-11e0-ab62-00144feabdc0.html>

## 5. National Policy Statements

The Government published its finalised National Policy Statements (NPSs) for Energy on 23<sup>rd</sup> June. These are all available on the DECC website along with a Government response to the consultation exercise. (1) On 18<sup>th</sup> July the NPSs were debated in the House of Commons and Chris Huhne, designated the plans on 19<sup>th</sup> July. There were no big changes in the NPSs and the list of sites remained the same as in the revised drafts.

Friends of the Earth said the UK's energy needs could be met through "clean renewable power". "After five decades of nuclear power the industry still needs huge public subsidy, while solar is set to operate without taxpayer support within a decade - even in cloudy Britain," spokesman Simon Bullock said. "The Government is obsessed with putting a new nuclear millstone around Britain's neck." (2)

Greenpeace condemned the plans saying that nuclear power is expensive and naming sites is not a solution to dealing with radioactive waste. Greenpeace climate and energy campaigner, Louise Hitchins, said: "It's illogical, and possibly illegal, for the Government to keep pushing for a fleet of new nuclear reactors before we've even learned the lessons from the Fukushima meltdown. Countries around the world are dropping their nuclear programmes as costs soar. And a growing number of our European competitors have turned their backs on nuclear power after calculating that it's just not worth the risk." (3)

The Government's Response to Consultation on the Revised National Policy Statements on Energy Infrastructure says on page 157 "The NPS now states that the fact that a site is identified as potentially suitable does not prevent the impacts being considered greater than the benefits in the consideration of an application for development consent."

And Page 158: "it is not necessarily the case that the whole interim storage period for the spent fuel produced by a new nuclear power station will be on-site. The Government does not wish to preclude alternative arrangements, for example a central storage facility, if a site can be identified and the necessary regulatory and planning permissions obtained."

- (1) [http://www.decc.gov.uk/en/content/cms/meeting\\_energy/consents\\_planning/nps\\_en\\_infra/nps\\_en\\_infra.aspx](http://www.decc.gov.uk/en/content/cms/meeting_energy/consents_planning/nps_en_infra/nps_en_infra.aspx)
- (2) BBC 23rd June 2011 <http://www.bbc.co.uk/news/world-13887579>
- (3) Edie 23rd June 2011 [http://www.edie.net/news/news\\_story.asp?id=20207&channel=0&title=Eight+new+nuclear+power+stations+for+the+UK](http://www.edie.net/news/news_story.asp?id=20207&channel=0&title=Eight+new+nuclear+power+stations+for+the+UK)



- (4) Government Response to Consultation on the Revised Draft National Policy Statements for Energy Infrastructure, DECC 23<sup>rd</sup> June 2011 <http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/consents-planning/nps2011/1945-govt-resp-consultation-on-nps.pdf>

## 6. Doubts on the Horizon

Fresh doubts emerged over the future of the Horizon consortium after the German newspaper *Süddeutsche Zeitung* reported that RWE and E.ON have all but abandoned the idea of building nuclear plants in the UK. (1) It quoted a manager saying that E.ON and RWE have concluded that the investments, which were understood to tally up to £17 billion, were too expensive. Horizon was due to have started awarding contracts around Wylfa this year. (2)

The two German utilities denied they had abandoned their plans, but said they were waiting to see what the Government's Electricity Market Reforms were like before making any decisions. (3) Horizon told the Gloucestershire Gazette that nothing had changed and it was business as usual. (4)

RWE is struggling with a debt of almost £25bn so it has also appointed Goldman Sachs to review its options for Npower, raising the possibility that it could sell off the UK arm altogether for around £5bn. (5) The CEO Mr Grossman has pledged to dispose of assets worth around €8bn, (increased to €11bn (6)) so selling Npower would go a long way towards meeting that target. The government's carbon floor price, which will be introduced in 2013, will increase the cost of operating UK coal-fired power stations which generate 40% of Npower's electricity.

Gazprom has been talked about as a potential buyer of Npower, but the two companies are in talks about setting up a joint venture in which Gazprom would take an equity stake in RWE's power plants across Europe, including possibly in Britain. The government now says it won't try to stop Kremlin-controlled energy giant from investing in British power stations, which is odd because one of the reasons put forward for building new reactors was to avoid becoming reliant on Russian gas. Gazprom is the biggest supplier of gas to continental Europe but delivers none to Britain. It wants to grow its business here but has encountered opposition in the past. Five years ago the previous government considered blocking a rumoured takeover of Centrica, owner of British Gas, amid concerns that the company could be used as a tool of political influence. (7)

Just as we go to Press the *Financial Times* reports that Npower is not part of RWE's asset disposal plans, and the CEO Mr Grossmann has also damped speculation that the company was looking to leave the Horizon consortium noting that "*this project will continue*". He said a final investment decision will not need to be taken for another two to three years. (8)

- (1) Telegraph 6<sup>th</sup> July 2011 <http://www.telegraph.co.uk/finance/newsbysector/energy/8618966/EDF-and-RWE-raise-fresh-doubts-over-UK-nuclear-plans.html>  
(2) Times 6th July 2011 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3085191.ece>  
(3) Reuters 5th July 2011 <http://af.reuters.com/article/energyOilNews/idAFL6E7I50Q720110705?pageNumber=2&virtualBrandChannel=0>  
(4) Gloucestershire Gazette 7<sup>th</sup> July 2011 [http://www.gazetteseries.co.uk/news/9128105.Horizon\\_continuing\\_with\\_Oldbury\\_nuclear\\_plant/](http://www.gazetteseries.co.uk/news/9128105.Horizon_continuing_with_Oldbury_nuclear_plant/)  
(5) FT 5<sup>th</sup> July 2011 <http://www.ft.com/cms/s/0/e7fe61ec-a737-11e0-b6d4-00144feabdc0.html>  
(6) Fox Business 8th Aug 2011 <http://www.foxbusiness.com/industries/2011/08/08/rwe-announces-management-shakeup-capital-hike-as-nuclear-exit-weighs/>  
(7) Sunday Times 7<sup>th</sup> August 2011 <http://www.thesundaytimes.co.uk/sto/business/Industry/article695646.ece>  
(8) FT 9th August 2011 <http://www.ft.com/cms/s/0/32a05216-c266-11e0-9ede-00144feabdc0.html>

## 7. Timetable for Dumping Waste Accelerated

The Government published the first annual report of its Managing Radioactive Waste Safely Programme at the end of June. Launching the report at the second meeting of the Geological Disposal Implementation Board in London, Charles Hendry, Minister of State for Energy, said he would like to set a goal of putting the first waste into a geological disposal facility by the end of 2029, rather than 2040. He said he has “*tasked the Nuclear Decommissioning Authority to look at opportunities for accelerating progress to meet this aim.*” (1)

On the same day as the Annual Report (2) the Government published a consultation document which looks at how desk-based studies would be used to identify possible sites which have been put forward following a local authority decision to participate. It also sets out how possible sites will be assessed against agreed criteria and how local and subsequent government decisions will be made about any sites that might be put forward for more detailed geological assessment. (3) The consultation: Desk-based Identification and Assessment of Potential Candidate Sites for Geological Disposal, closes on 30<sup>th</sup> September 2011. (4)

The West Cumbria Managing Radioactive Waste Partnership was due to agree some “*preliminary conclusions*” at a meeting on 29<sup>th</sup> July regarding safety, security, environment and planning. The Partnership was formed after Allerdale, Copeland and Cumbria County Council all expressed an interest in being involved in the process to find a site for a so-called deep geological repository. At a meeting last month, the group agreed on its stance on geology, design, engineering and the waste inventory of a possible facility. A third meeting is to be held to decide on further issues, before it compiles a draft report. The panel will then ask the public for its opinion on the issue before a final report is given to the three councils. (5)

The Partnership held a seminar on geology on 20<sup>th</sup> June in Whitehaven which was attended by more than 100 people including about 60 members of the public. The meeting heard from a number of experts: Professor Simon Harley from the independent Committee on Radioactive Waste Management (CoRWM); geologists Dr Adrian Bath and Dr Jeremy Dearlove; and Cherry Tweed from the Nuclear Decommissioning Authority. Another geologist, Professor David Smythe, decided not to take part in the seminar. (6)

Professor Smythe was offered me a 15-minute slot but declined because he said he couldn't possibly cover the complexities of the geology in a quarter of an hour. He described the seminar as “*merely a PR exercise*”. He has published a detailed technical article, running to 35 pages, to back up his statement that nowhere in West Cumbria is suitable for high or intermediate level radioactive waste disposal (7). No official government body has responded in any substance to his geological criticisms. It is evident that they cannot, and that my conclusion stands. (8)

Cherry Wade, from the Nuclear Decommissioning Authority (NDA), told the seminar:

*“For those parts of west Cumbria which are still potentially in consideration for this process the amount of geological information available is highly variable. For most of the region insufficient information exists on which to take a decision on the suitability to host a geological disposal facility. Even for those areas where more information is available it would be necessary to evaluate it further in the light of the advanced knowledge which has taken place since the early stages and make sure the information and the understanding is up to date.”*

Dr Ruth Balogh from the west Cumbria and North Lakes Friends of the Earth questioned the value of the seminar:

*“Hosting a repository in this region would mean keeping people and the environment safe from hazardous radioactive waste for hundreds of thousands of years. An issue of this magnitude deserves more than a biased two-hour seminar.” (9)*

The panel of geological and radioactive waste experts were asked: *“If the answer is ‘no’ where do you go from here? You are only looking at one option which means you are going to try and make it fit.”* But CoRWM member Professor Simon Harley answered: *“It is a voluntary process. It will only move forward with community participation. If a community decides it does not want to move further forward the process will come to an end. That will leave the UK with a significant legacy of nuclear waste that needs to find a solution.” (10)*

- (1) DECC Press Release 28<sup>th</sup> June 2011  
[http://www.decc.gov.uk/en/content/cms/news/pn11\\_057/pn11\\_057.aspx](http://www.decc.gov.uk/en/content/cms/news/pn11_057/pn11_057.aspx)
- (2) First Annual Report on MRWS Programme 28th June 2011  
<http://mrws.decc.gov.uk/assets/decc/mrws/2011-06-24%20mrws%20annual%20report%202010-11%20final.pdf>
- (3) Edie 28<sup>th</sup> June 2011  
[http://www.edie.net/news/news\\_story.asp?id=20259&channel=0&title=DECC+launches+consultation+on+nuclear+waste+disposal+options+](http://www.edie.net/news/news_story.asp?id=20259&channel=0&title=DECC+launches+consultation+on+nuclear+waste+disposal+options+)
- (4) Managing Radioactive Waste Safely: Desk-based Identification and Assessment of Potential Candidate Sites for Geological Disposal, DECC 28<sup>th</sup> June 2011.  
<http://www.decc.gov.uk/assets/decc/11/consultation/mrws-siting/2064-mrws-identification-siting-condoc.pdf>
- (5) West Cumbria MRWS website 26<sup>th</sup> July 2011  
[http://www.westcumbriamrws.org.uk/news\\_more.asp?news\\_id=28](http://www.westcumbriamrws.org.uk/news_more.asp?news_id=28)  
Cumberland News 27<sup>th</sup> July 2011 <http://www.cumberlandnews.co.uk/west-cumbria-panel-to-agree-first-conclusions-on-nuclear-dump-1.861844?referrerPath=business>
- (6) West Cumbria MRWS website 22<sup>nd</sup> June 2011  
[http://www.westcumbriamrws.org.uk/news\\_more.asp?news\\_id=27](http://www.westcumbriamrws.org.uk/news_more.asp?news_id=27)
- (7) Why a deep nuclear waste repository should not be sited in Cumbria, by Prof David Smythe, April 2011  
<http://www.davidsmythe.org/nuclear/Unsuitability%20of%20Cumbria%2012April2011%20plus%20figs.pdf>
- (8) Letter from David Smythe to the Whitehaven News 16<sup>th</sup> June 2011  
<http://www.whitehavennews.co.uk/letters/you-say/the-carve-up-of-copeland-it-s-time-to-say-enough-is-enough-1.847574?referrerPath=letters> See also Times and Star 16<sup>th</sup> June 2011  
<http://www.timesandstar.co.uk/news/other/nuclear-dump-exercise-failed-to-rock-my-world-1.848035?referrerPath=news/other>
- (9) Carlisle News & Star 22<sup>nd</sup> June 2011 <http://www.newsandstar.co.uk/news/do-we-want-cumbria-to-be-the-country-s-nuclear-dump-1.849697?referrerPath=/news-round-up-1.50001>
- (10) Whitehaven News 23<sup>rd</sup> June 2011 <http://www.whitehavennews.co.uk/news/nuclear-waste-will-not-be-forced-on-west-cumbria-1.850263?referrerPath=news/>

## 8. Scottish Disappointment

A swarm of jellyfish caused the closure of the two reactors at Torness nuclear power station in Scotland at the end of June by clogging filters in the cooling water intake pipes. (1) The news prompted one Scottish councillor to remark that the jellyfish had achieved what anti-nuclear activists have failed to achieve after more than thirty years of campaigning, and the Scottish Government, which claims to be anti-nuclear, is now refusing to deliver the coup de grâce.

In December 2007 when British Energy announced it was extending the life of its Hunterston reactors for five years until 2016, Scottish National Party Ministers were attacked by, of all people, the Liberal Democrats for welcoming the news. The Lib Dems accused the minority SNP Government of "flip-flopping" over the morality of nuclear power. Jim Mather, the energy minister at the time, said:

"[British Energy] will have to invest significantly at Hunterston to ensure it is safe and reliable, and

*that has to be in Scotland's interests. There is more than enough green and renewable potential in Scotland to provide a low- carbon electricity supply, so the argument that we need nuclear is totally redundant. It [was] always understood that existing nuclear power stations continue until the end of their lifecycle."* (2)

Now, four years later, EDF Energy is already preparing its case for a further life extension for Hunterston B from 2016 to 2021. (3) Trade Unions at Hunterston are said to be confident the evidence presented to the regulator for the periodic safety reviews will result in agreement to a significant life extension for Hunterston B until 2021 or 2026. (4)

But with everything that has happened in the last four years – the Fukushima disaster for instance, the fact that renewable are doing better than expected in Scotland and the Scottish Government has introduced a new target of producing the equivalent of 100% of Scotland's electricity from renewables by 2020 (5) – it would be reasonable to expect the new Energy Minister, Fergus Ewing MSP, in a majority SNP Government to oppose any further life extension for Hunterston.

In May Ewing declared that the German decision to phase out nuclear power by 2022 "*adds further weight*" to the SNP's plans to generate all of Scotland's energy from renewables within ten years. (6) He also said that Scotland is ideally placed to follow a similar route. (7)

The eight reactors which Germany has already shut down were opened between 1975 and 1984. Hunterston B, which was opened in 1976, is older than, or the same age as, all but one of them. A major study of reactor hazards by two leading scientists and an international energy specialist, published by Greenpeace in April 2005, concluded that risks from ageing reactors are higher because age-related degradation mechanisms are not well understood and are difficult to predict. (8)

It's true that the Scottish Government has very limited official powers in the Periodic Safety Review process. However, it could well be possible to influence the outcome. The Nuclear Free Local Authorities, Friends of the Earth Scotland and WWF Scotland wrote to Ewing in June asking him to commission an independent study on the risks of continuing to operate 35-year old graphite-moderated reactors, and extending the life of such reactors beyond 2016. They highlighted a report by Large Associates on problems at Hunterston B's sister station, Hinkley Point B which analysed a bundle of documents received under the Freedom of Information Act, and concluded that there are:

*"...significant uncertainties over the structural integrity and residual strength of the moderator cores in ...AGR plants [including Hunterston] ... in view of the increased risk presented by continued operation of these nuclear plants, the reactors should be immediately shut down and remain so until a robust nuclear safety case free of such uncertainties has been established".* (9)

Not surprising then that when Ewing told the Scottish Parliament there was a "*rational case*" for extending the life of Scotland's two nuclear plants, and that the Scottish National party (SNP) government was "*perfectly open*" to the continued use of Hunterston and Torness power stations, to ensure there was security of supply, it was characterised in the press as a u-turn and a huge disappointment to environmentalists. He told a debate on renewable energy in the Scottish Parliament that the two power stations could continue to generate electricity "*providing that the case is justified on economic and environmental grounds*". He added: "*That case exists, and it exists because of the need for security of supply. We have always acknowledged that, although we are clearly opposed to the building of new nuclear power stations.*" (10)

Ewing's statement implied the SNP would also accept extending Torness's life, as well as Hunterston's meaning Scotland could well still be producing nuclear waste in 2033, which *The Guardian* said makes "*the SNP's opposition to new nuclear power stations largely meaningless*". (11)

Scottish Conservatives also described the Scottish position as a U-turn. Jackson Carlaw MSP, Scottish Conservative Climate Change Spokesperson, said:

*"This is an unexpected yet welcome U-Turn from the SNP Government. Coming after years of uncompromising anti-nuclear rhetoric I suspect it is one they will not wish to be reminded of too often."* (12)

Friends of the Earth Scotland said the minister's statement was "*deeply disturbing and utterly disappointing*". Stan Blackley, chief executive of the campaign group, said: "*The Scottish government should not be propping [the power stations] up in their old age, during which they will grow ever-increasingly unreliable and potentially even more dangerous ... The SNP has always been viewed as anti-nuclear, particularly given the anti-nuclear words and activities of its politicians at all levels in recent years, and I'm sure many SNP voters will feel quite misled when they learn that this is not the case anymore.*" (13)

- (1) Guardian 30<sup>th</sup> June 2011 <http://www.guardian.co.uk/environment/2011/jun/30/jellyfish-shut-nuclear-reactors-torness>
- (2) Scotsman 12<sup>th</sup> December 2007 <http://news.scotsman.com/latestnews/SNP-under-fire-for-flipflop.3589520.jp>
- (3) Largs & Millport Weekly News 11th April 2011  
<http://www.largsandmillportnews.com/news/roundup/articles/2011/04/11/412213-hunterston-nuclear-can-go-to-2021/>
- (4) Largs and Millport Weekly News 1st September 2010  
<http://www.largsandmillportnews.com/news/roundup/articles/2010/09/01/404629-hunterston-unions-want-new-nuclear/>
- (5) Scottish Government Press Release 18<sup>th</sup> May 2011  
<http://www.scotland.gov.uk/News/Releases/2011/05/18093247>
- (6) Scottish Government Press Release 30<sup>th</sup> May 2011  
<http://www.scotland.gov.uk/News/Releases/2011/05/31082406>
- (7) Scotsman 31<sup>st</sup> May 2011 <http://thescotsman.scotsman.com/scotland/Scotland-wants-Germanstyle-nuclear-shutdown.6777092.jp?articlepage=1>
- (8) Nuclear Reactor Hazards by Helmut Hersch, Oda Becker, Mycle Scheneider, Anthony Froggatt, Greenpeace International, April 2005.  
<http://www.greenpeace.org/international/Global/international/planet-2/report/2006/8/nuclearreactorhazards.pdf>
- (9) Brief Review of the Documentation Relating to the Graphite Moderator Cores at Hinkley Point B and Other Advanced Gas-Cooled Reactors. Large and Associates, June 2006.  
<http://www.largeassociates.com/PapersReports.htm>
- (10) Times 1<sup>st</sup> July 2011 <http://www.thetimes.co.uk/tto/news/uk/scotland/article3080652.ece>
- (11) Guardian 1<sup>st</sup> July 2011 <http://www.guardian.co.uk/environment/2011/jul/01/scottish-government-nuclear-power-snp?INTCMP=SRCH>
- (12) Scottish Conservatives 30<sup>th</sup> June 2011 <http://www.scottishconservatives.com/news/news/carlaw-welcomes-snps-nuclear-uturn/1349>
- (13) Times 1<sup>st</sup> July 2011 <http://www.thetimes.co.uk/tto/news/uk/scotland/article3080652.ece>

## 9. Scottish Renewable Route-Map

An action plan to drive forward Scotland's renewables revolution, and to meet Scotland's world-leading green energy targets, was launched by Energy Minister Fergus Ewing. The Renewables Routemap outlines the necessary steps needed to capitalise on the enormous economic potential of Scotland's green energy capacity and to meet ambitious targets, including supplying 100% of electricity demand equivalent from renewables by 2020. (1)

The 2020 Renewables Routemap sets out plans for achieving Scotland's renewables targets for electricity, heat and transport. But WWF Scotland says, while the plan puts the power sector firmly on the right path, it fails to describe the changes we need to see in heating and transport. (2)

The commitment to meet 100% of Scotland's electricity needs from renewables by 2020 has been widely discussed, but this needs to be matched by equal efforts to reduce energy demand, says WWF. Scotland could secure at least 50% of total energy needs from renewables by 2030 by implementing an ambitious energy efficiency programme.

The routemap includes a new target to meet 30% of total energy demand from renewables by 2020, up from the previous target of 20%. This puts Scotland up with the leaders in Europe and is double the UK target. Scotland looks set to beat the current target of generating 11% of heat from renewables, so the target should be reset to at least 20% by 2020 to help drive this sector forward.

WWF also want to see a clear commitment to help secure at least 300,000 electric vehicles by 2020, including the publication of the long-awaited action plan to ensure coordinated delivery.

The roadmap also sets a new target to deliver 500MW of community and locally owned renewable energy by 2020, and outlines a commitment to develop strategies for microgeneration and agri-renewables. (3)

The Association for the Conservation of Energy pointed out that the Scottish Government's plans allow for a 7% increase in electricity demand by 2020 compared with Germany's plans to reduce electricity demand by 25% by 2050. Germany has compared the costs and benefits of new renewable generation with energy saving measures, and concluded that the latter make far better economic, social and environmental sense. They are therefore investing more than €1.3 billion per year into energy-saving measures. (4) WWF Scotland has called on the Scottish Government to establish a clear road map to make sure all homes sold or rented meet the band 'E' rating on the Energy Performance Certificate scale (A-G), matched with the necessary financial packages. It says for every £1 spent on keeping our houses warm, the NHS can save 42 pence on health costs. This is a win win for the environment and the public purse. (5)

- (1) Scottish Government Press Release 30<sup>th</sup> June 2011 <http://www.scotland.gov.uk/News/Releases/2011/06/30094005> and 2020 Routemap for Renewable Energy in Scotland. <http://www.scotland.gov.uk/Publications/2011/08/04110353/0>
- (2) WWF Scotland 30th June 2011 [http://scotland.wwf.org.uk/what\\_we\\_do/latest\\_wwf\\_scotland\\_news.cfm?5050/Routemap-to-renewable-future](http://scotland.wwf.org.uk/what_we_do/latest_wwf_scotland_news.cfm?5050/Routemap-to-renewable-future)
- (3) Business Green 30<sup>th</sup> June 2011 [http://www.businessgreen.com/bg/news/2083058/scotland-boosts-renewables-ambition-cent-2020?WT.rss\\_f=&WT.rss\\_a=Scotland+boosts+renewables+ambition+to+30+per+cent+by+2020](http://www.businessgreen.com/bg/news/2083058/scotland-boosts-renewables-ambition-cent-2020?WT.rss_f=&WT.rss_a=Scotland+boosts+renewables+ambition+to+30+per+cent+by+2020)
- (4) Scotsman 2<sup>nd</sup> June 2011 <http://thescotsman.scotsman.com/nuclearenergy/Letter-Renewable-hope.6778114.jp>
- (5) WWF Scotland 6<sup>th</sup> June 2011 [http://scotland.wwf.org.uk/what\\_we\\_do/press\\_centre/?4983/Call-for-rapid-upgrade-of-Scotlands-worst-energy-rated-homes](http://scotland.wwf.org.uk/what_we_do/press_centre/?4983/Call-for-rapid-upgrade-of-Scotlands-worst-energy-rated-homes)

## 10. Plutonium waste could be sent by rail from Dounreay to Sellafield

The NDA has announced that it sees a clear and compelling strategic case for Dounreay Fast Reactor (DFR) "breeder material" to be reprocessed at the Magnox reprocessing plant at Sellafield rather than being immobilized at Dounreay. (1)

This so-called "breeder material" comes from the experimental Dounreay fast breeder reactor which operated from 1959 to 1977. The "material" was an outer ring of uranium metal (rather than the inner core of plutonium fuel) which captured neutrons from the inner core and produced plutonium. The NDA says "*The breeder material is radioactive, but much less so than fuel since it does not contain large amounts of fission products, and it has also been cooled since 1977.*" The NDA says it will cost around £30m to prepare and transport the waste and then about another £30m to reprocess it at

Sellafield. (2) Treating and storing it at Dounreay would cost an estimated £65m.

Friends of the Earth Scotland has condemned the proposed movements, claiming they pose unacceptable risks for accidents, mistakes and sabotage - the possibility of accidents or the material getting into the hands of terrorists meant the shipments presented too high a risk. (3) If approved, the first of 46 shipments could start in January 2012 and run over four years.

In the late 1960s, 30 tonnes of breeder material was sent from Dounreay to Sellafield, but a further 44 tonnes remains at the Caithness site. It is considered to be neither fuel nor waste. A final business case for its disposal will be presented in the autumn and a decision by the NDA is expected two months later. (4)

Corrina Thomson writing on the John O’Groat Journal website complained about NDA doublespeak. She says the NDA’s report is a damning indictment of how the NDA works and drives an axe through some fairly reasonable attempts in recent times to treat the public as if they are intelligent enough to make their own decisions about what should happen to our nuclear “legacy”. Before the reader even reaches the options on what to do with the scrap sitting in the Dounreay sphere, the report begins by telling people how they should refer to the stuff in question. “The breeder material is not classified as a fuel, as it does not take part in the nuclear ‘core’ reaction and is not converted into fission products, but neither is it waste. This is why, to avoid confusion, it is referred to as ‘material’,” it says. (5) She reminds us that some of the material is so stuck in the reactor that special plans have been drawn up to cut it out, and there is no appraisal of the litany of problems that have beset reprocessing at Sellafield.

It is a struggle to find any mention of the fact that the NDA’s document is a consultation. It says “*In preparing the final business case, the SLCs and NDA will need to engage with regulators, stakeholders and local communities to gain their view of the proposed strategy for management of this material.*” The NDA does say in its press release that it wants comments on its credible options paper by end of August 2011 sent to: [strategy@nda.gov.uk](mailto:strategy@nda.gov.uk) (6)

**Meanwhile regarding Harwell** the NDA published a similar document in August: *Credible and Preferred options associated with the management of exotic fuels, nuclear materials and wastes at Harwell.* (7) Again the proposal is to switch the management policy from one of on-site storage to management at Sellafield. Comments on this are expected by the end of September 2011 to the same e-mail address. Should management of the fuel and “material” at Sellafield become the approved strategy, transportation will commence in 2013.

- (1) Exotic Fuels: Credible and Preferred Options. NDA, July 2011  
<http://www.nda.gov.uk/documents/upload/Exotic-Fuels-Dounreay-Fast-Reactor-DFR-Breeder-Credible-and-Preferred-Options-July-2011.pdf>
- (2) BBC 8th July 2011 <http://www.bbc.co.uk/news/uk-scotland-highlands-islands-14084296>
- (3) Press and Journal 12<sup>th</sup> July 2011 <http://www.pressandjournal.co.uk/Article.aspx/2349323>
- (4) Scotsman 12<sup>th</sup> July 2011 <http://news.scotsman.com/news/Anger-at-move-to-send.6799917.jp>
- (5) John O’Groat Journal 5<sup>th</sup> August 2011 <http://www.johnogroat-journal.co.uk/Features/The-Free-Press/Not-fuel-and-not-waste-so-what-is-it-03082011.htm>
- (6) NDA Press Release 8<sup>th</sup> July 2011 <http://www.nda.gov.uk/news/dfr-exotic-fuel-options.cfm>
- (7) NDA Press Release 9<sup>th</sup> August 2011 <http://www.nda.gov.uk/news/harwell-credible-preferred-options.cfm>

## 11. Sellafield MoX Plant

The NDA has announced that the Sellafield MoX Plant (SMP) will close. It puts the blame squarely on the Japanese earthquake. (1) Built to manufacture 120 tonnes of MOX fuel per year, and with an operating lifespan of 20 years, SMP produced no fuel whatsoever until its third year of operation and a total of just 13 tonnes in its 9 years of operation which saw a number of contracts having to be sub-contracted to SMP’s arch-rivals in Europe. Despite dire warnings in 2006 and 2007 from Government

commissioned consultants Arthur D Little (who had originally provided Government glowing reports of the plant's prospects) that without further investment the plant would never operate as originally planned, the NDA continued to support its operation and in so doing wasted an estimated £1.4Bn of taxpayers' money.

A final lifeline was thrown to SMP in 2010 by the NDA involving a prolonged closure for complete refurbishment to be financed at an estimated cost of £200M by Japanese utility customers, with the lead customer for the 'revamped' SMP identified as Chubu Electric's Hamaoka plant. Dubbed in Japan as 'the most dangerous atomic facility in the quake-prone archipelago', Hamaoka was forced to close earlier this year by the Japanese Government's demand for seismic tests and safety improvements. With the postponement of any further use of MOX fuel in Hamaoka's reactors, SMP's sole contract and lifeline was lost. (2)

The Government launched a consultation earlier this year into whether the best solution for UK stocks of civil plutonium was to reuse it as a fuel which would mean building a second MOX plant, probably at Sellafield. Labour Shadow Energy and Climate Change Secretary Meg Hillier called on the Government to make a swift announcement on proposals to build a new MOX plant. (3) She said a decision was needed to send a signal to investors that the UK was committed to the nuclear industry and a new fleet of reactors, and to secure jobs. (4) Cumbrian MP Jamie Reed called for a new Mox plant to be brought forward as quickly as possible. Cumbria County Council wants the Government to "immediately confirm it will commission and build a new Sellafield Mox plant". (5)

*The Guardian* said nuclear industry experts described a replacement MOX plant as "another white elephant" that would cost the UK taxpayer billions but have little or no market for its products. But the government has an interest in continuing to insist that MOX is still viable rather than acknowledge that the tonnes of plutonium stored at Sellafield are a liability on government balance sheets. (6)

As a result of the closure, Britain will be left with about 13 tonnes of Japanese plutonium for decades. Britain has a stockpile of about 110 tonnes of plutonium about a quarter of which belongs to foreign nuclear companies. (7) The option of returning the highly dangerous plutonium dioxide to Japan by sea will be frowned upon by many countries, especially the United States which fears possible terrorist attacks and nuclear proliferation. (8)

- Meanwhile, it seems a bit premature to say the least for Sellafield to be sending a shipment of vitrified High Level Waste (HLW) to the earthquake region of Japan posing a threat to en-route communities in the Caribbean and Pacific and their marine environment in the process. The Pacific Grebe left Barrow-in-Furness in the early hours of 3<sup>rd</sup> August bound for Aomori, north-eastern Japan via the Caribbean and the Panama Canal carrying 76 canisters of vitrified HLW, totalling over 40 tonnes of highly radioactive waste. (9)
- Campaigners have welcomed plans to stop nuclear waste trains travelling through East London during the Olympics in 2012. But Direct Rail Services stressed the decision had nothing to do with terrorist fears but was merely designed to free up space for more passenger trains during the nine week sporting extravaganza. (10)

(1) NDA Press Release 3<sup>rd</sup> August 2011 <http://www.nda.gov.uk/news/smp-future.cfm>

(2) CORE Press Release 4<sup>th</sup> Aug 2011  
<http://www.corecumbria.co.uk/newsapp/newsmain.asp?StrNewsID=291>

(3) Yorkshire Post 3<sup>rd</sup> Aug 2011 <http://www.yorkshirepost.co.uk/news/at-a-glance/main-section/nuclear-plant-to-close-in-wake-of-japan-disaster-1-3643488>

(4) Independent 3<sup>rd</sup> Aug 2011 <http://www.independent.co.uk/news/uk/home-news/sellafields-mox-fuel-plant-to-shut-2331117.html>



- (5) Whitehaven News 4<sup>th</sup> Aug 2011 <http://www.whitehavennews.co.uk/news/reaction-to-nda-s-decision-on-mox-fate-1.864854?referrerPath=news>
- (6) Guardian 3rd Aug 2011 <http://www.guardian.co.uk/environment/2011/aug/03/sellafield-mox-plant-close>
- (7) Times 4th August 2011  
<http://www.thetimes.co.uk/tto/business/industries/utilities/article3114316.ece>
- (8) Independent 4th August 2011 <http://www.independent.co.uk/news/science/closure-of-mox-plant-leaves-nuclear-waste-headache-for-cumbria-2331439.html>
- (9) CORE Press Release 3<sup>rd</sup> Aug 2011  
<http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=290>
- (10) London 24 26<sup>th</sup> July 2011  
[http://www.london24.com/news/brakes\\_put\\_on\\_nuclear\\_trains\\_running\\_through\\_redbridge\\_1\\_975075](http://www.london24.com/news/brakes_put_on_nuclear_trains_running_through_redbridge_1_975075)

## 12. Nuclear Costs

The Government's Committee on Climate Change (CCC) claimed in May that building more nuclear power stations would be a cheaper option than building offshore wind farms. (1) Jonathon Porritt addresses this in a blog intended to respond to questions asked by George Monbiot. (2) He says the principal source of the CCC's figures appears to be the Mott MacDonald report prepared for DECC in June 2010. As pointed out by Andrew Broadbent (of CES Social and Economic Research), these figures have been challenged by a wide range of very different cost projections. Nuclear costs would be much higher – nuclear is certainly not "the most cost-effective" low-carbon technology.

Porritt points out that Mott MacDonald produced a new report in May 2011 which pretty much contradicted its own 2010 report. It says the relative costs of different energy-generating technologies actually depend on which technology is given priority by policy makers. Why the CCC decided to airbrush this vital conclusion, and choose not to point out that government itself has the responsibility for deciding whether to make renewable energy the most cost-effective option, can only be guessed at.

According to Dr David Toke, an Energy Policy lecturer at Birmingham University, the CCC has now effectively abandoned its claim. An analyst for the Committee told Toke:

*"Whilst we think it is likely that nuclear will be cost competitive, consideration of the uncertainties demonstrates why it is inappropriate to base policy on a conclusion that nuclear (or onshore wind, or offshore wind...) is "the" cheapest option."*

Toke says onshore and even offshore wind involve rather less financial uncertainty. Hence investors and banks will require higher rates of return for investments in new nuclear power stations compared to investments in wind power.

- (1) Telegraph 9<sup>th</sup> May 2011 <http://www.telegraph.co.uk/earth/energy/nuclearpower/8501816/Nuclear-power-cheaper-option-than-offshore-wind-farms.html>
- (2) Jonathon Porritt's blog 26<sup>th</sup> July 2011 <http://www.jonathonporritt.com/blog/why-george-monbiot-completely-wrong-nuclear-power>
- (3) David Toke's Green Energy Blog 9<sup>th</sup> August 2011 <http://realfeed-intariffs.blogspot.com/>

## 13. GDA & Westinghouse

The Office for Nuclear Regulation (ONR) and Environment Agency were on course to complete a meaningful Generic Design assessment for the two proposed reactor designs by June 2011, but this has now been delayed pending an evaluation of lessons from the Fukushima accident. In July 2011 the ONR and Environment Agency said that they expected to issue interim design acceptance confirmations (iDAC), and interim statements on design acceptability (iSODA) for the two designs by

the end of the year. A list of GDA Issues identify outstanding matters that need to be addressed before the regulators will provide a Design Acceptance Confirmation (for the Office of Nuclear Regulation (ONR)) or Statement of Design Acceptability (Environment Agency).

A full DAC and SODA may be issued for the UK EPR by the end of 2012, but Westinghouse has decided to request a pause in the GDA process pending customer input to finalizing it. (1) Westinghouse is committed to achieving the interim DAC and interim SoDA, but has signalled that its Resolution Plans to address the GDA Issues will not have start dates assigned to them, and it will not proceed until it is able to secure funding for this work. (2)

Meanwhile, isn't there something a bit iffy about consultancy Frazer-Nash giving advice to the Health & Safety Executive on new reactors designs (3) as well as providing support to an EDF Energy project to extend the life of the UK's advanced gas-cooled nuclear reactors (AGRs)? (4)

- (1) World Nuclear Association 3<sup>rd</sup> Aug 2011 <http://www.world-nuclear.org/info/inf84.html>
- (2) GDA Progress Report 30<sup>th</sup> June 2011 <http://www.hse.gov.uk/newreactors/reports/gda-q2-11.pdf>
- (3) The Engineer 3<sup>rd</sup> September 2009 <http://www.theengineer.co.uk/process-engineering/312880.article>
- (4) The Engineer 5<sup>th</sup> August 2011 <http://www.theengineer.co.uk/sectors/energy-and-environment/frazer-nash-helps-edf-energy-to-improve-the-uks-agrs/1009587.article>

#### 14. Nuclear Spin

Internal emails seen by *The Guardian* show that a PR campaign was launched to protect UK nuclear plans after tsunami in Japan. British government officials approached nuclear companies to draw up a co-ordinated public relations strategy to play down the Fukushima nuclear accident just two days after the earthquake and tsunami in Japan and before the extent of the radiation leak was known. The emails show how the business and energy departments worked closely behind the scenes with EDF Energy, Areva and Westinghouse to try to ensure the accident did not derail their plans for a new generation of nuclear stations in the UK.

Greenpeace called this "*scandalous collusion ... which highlights the government's blind obsession with nuclear power and shows neither they, nor the industry, can be trusted when it comes to nuclear.*" (1) This prompted Andy Myles, the Liberal Democrats former chief executive in Scotland to call for Chris Huhne to resign. (2)

- (1) Guardian 30<sup>th</sup> June 2011 <http://www.guardian.co.uk/environment/2011/jun/30/british-government-plan-play-down-fukushima>
- (2) Guardian 1st July 2011 <http://www.guardian.co.uk/environment/2011/jul/01/lib-dem-rebel-nuclear-power-subsidy>