



No.51 June 2013

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1. Energy Bill commits the UK to an eye-wateringly expensive nuclear future

A Government which was serious about tackling fuel poverty and high electricity bills would not sign up to a 35 or 40-year contract which involved paying around twice the current market price for electricity. Yet that is precisely what the complex mechanisms for providing financial support for nuclear in the Energy Bill do.

Caroline Lucas MP put forward amendments to the Bill which sought to simply return us to the coalition agreement position that new nuclear should receive no public subsidy. She said many people are hugely disappointed that Ministers have ditched this commitment so shamelessly. Essentially, we are writing a blank cheque for an expensive, inflexible old technology that we cannot afford and simply do not need.

Instead we should pursue more effective ways of meeting our energy needs and decarbonising our power sector, namely renewable energy, energy efficiency, demand reduction, and demand-side measures such as energy storage, genuinely smart grids and interconnectors. These solutions could deliver huge cost reductions and a substantial boost to the UK economic recovery, manufacturing and jobs. Moreover, the secrecy of the Department of Energy and Climate Change negotiations with EDF further undermines confidence in the credibility of the Government's claims that the deal represents value for money for consumers. (1)

Liberal Democrat MP, Martin Horwood also complained that nuclear subsidies contained in the Bill contravene the spirit of the coalition agreement. He said the agreement distinguished between renewables, where it implicitly accepted there was a case for subsidy, and the nuclear industry, for which it specifically ruled out a subsidy. Only a few years ago, the Labour Government line was also that there should be no subsidy for the new generation of nuclear power. Horwood argued that nuclear is an old industry—56 years old—and has generally been getting more and more expensive.

Unfortunately sensible amendments proposing simply examining the huge costs involved in new nuclear power were overwhelmingly rejected. The secretive negotiations between EDF and the Government risk forcing taxpayers and bill payers to pay almost double the current price of power for nuclear if the deal goes ahead. The deal should at least have been opened up to proper scrutiny by an expert panel to examine whether such contracts represent good value for consumers.

Caroline Lucas concluded: "*In its current form, this legislation will do little to facilitate the clean energy revolution, green jobs and well-insulated homes we so desperately need. It's a bill that commits the UK to an eye-wateringly expensive nuclear future - and one in which most fossil fuel polluters are free to continue business-as-usual as the climate crisis is brushed under the carpet.*" (2)

After the vote on her amendments Caroline tweeted that only 20 MPs believe nuclear is costly, unsafe & unnecessary which she described as "a bit shocking", but "that doesn't mean we were wrong".



Nick Butler of the FT thinks Electricity Market Reform will disintegrate under the weight of its own complexity. The Government's own summary booklet runs to 28 pages, and very few people understand them in full. The plans freeze the system in aspic at a time when the market and new technology are producing dramatic changes. Strike prices represent corporate welfare on a very big scale – a transfer of wealth from consumers to suppliers which means that those who win the lobbying battle will be celebrating for decades to come. (3)

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1. Hansard 3rd June 2013
<http://www.publications.parliament.uk/pa/cm201314/cmhansrd/cm130603/debtext/130603-0002.htm#13060314000001>
 2. Caroline Lucas MP Blog 4th June 2013
<http://www.carolinelucas.com/media.html/2013/06/04/coalition-mps-commit-uk-to-expensive-nuclear-future-and-business-as-usual-for-fossil-fuel-polluters/>
 3. FT 9th May 2013 <http://blogs.ft.com/nick-butler/2013/05/09/is-electricity-market-reform-doomed/>

2. Hinkley might never be built

Hinkley Point C might never be built, or if it is, electricity production could start later than at Wylfa and Oldbury, according to the Dr Tim Fox, head of energy at the Institution of Mechanical Engineers. (1) EDF is holding off on a decision to build Hinkley until it's sure it will be profitable, according to Chief Executive Officer Henri Proglio. (2)

Even if EDF Energy manages to agree a “strike price” with the government there is no guarantee it will be able to attract the investment it needs to start construction. The Chinese seem to have lost interest, (3) but *The Times* reported on 25th May that the project had sparked back to life because oil-rich Qatar and Abu Dhabi may be prepared to invest. (4)

Despite this, Fox reckons it is “*entirely possible*” that Advanced Boiling Water Reactors (ABWR) at Wylfa and Oldbury, will be generating electricity first. EDF could struggle to attract the necessary levels of investment because of problems in Normandy and Finland, where the projects are behind schedule and over budget.

In contrast, Hitachi might have a more readily available supply of credit. Although the company had yet to take the ABWR through the UK's tortuous generic design assessment, the fact that eight ABWRs had already been built across the world would be attractive to investors and in all likelihood speed up the licensing process.

Centrica has warned that EDF will take twice as long as originally planned to build Hinkley. Sam Laidlaw, chief executive, said: “*Not only had the cost increased but also the schedule had lengthened very considerably. So instead of taking four to five years to build, EDF were telling us that it was going to take nine to 10 years to build. That is a long time to be writing out a cheque for this project.*” (5)

SSE and Npower have both urged ministers not to agree a deal with EDF on the “strike price”. SSE Chief Executive, Ian Marchant who retires this summer, said the £14bn Hinkley project depends on subsidies paid for by levies on consumer energy bills – it is “*the wrong technology at the wrong price from the wrong company*”. New nuclear technologies being developed elsewhere were “*easier and quicker to build*”. (6) Marchant argues the government shouldn't be pressing ahead with immediate plans to expand nuclear. Instead, he says it needs to take a step back and learn from what is happening elsewhere in the world: “*We can afford as a country to wait. There is a lot of interesting technology development in nuclear going on – both in Asia, where they are building to time and budget...and in the US where they are looking at...smaller reactors, easier and quicker to build, and I think the UK should say, we'll wait, we should invest in gas, renewables, gas and demand side management – and that buys us to 2025.*” (7)

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1. Professional Engineering 4th June 2013 <http://profeng.com/news/hinkley-point-c-may-not-be-built>
 2. Bloomberg 30th May 2013 <http://www.bloomberg.com/news/2013-05-30/edf-stalls-on-u-k-nuclear-decision-citing-profitability-concern.html>
 3. Times 25th May 2013 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3774858.ece>

4. Guardian 17th May 2013 <http://www.guardian.co.uk/business/2013/may/17/coalition-optimistic-nuclear-power-edf-china>
5. Telegraph 13th May 2013 <http://www.telegraph.co.uk/finance/newsbysector/energy/10055107/Centrica-stokes-energy-fears-by-revealing-EDF-nuclear-timescale-has-doubled.html>
6. Telegraph 12th May 2013 <http://www.telegraph.co.uk/finance/newsbysector/energy/10052564/SSE-mis-selling-not-as-bad-as-banks-chief-executive-Ian-Marchant-claims.html>
7. Carbon Brief 13th May 2013 <http://www.carbonbrief.org/blog/2013/05/bbc-interview-with-ian-marchant>

3. Strike Price Negotiations Drag On.

Meanwhile, negotiations about a guaranteed price for the electricity that would be produced by Hinkley Point C are dragging on. *Building Magazine* reported on 3rd May that a deal could come as “*early as next week*”. It didn’t. The magazine quoted “sources” saying the parties aim to reach an agreement in “early May”, and it is understood a strike price of between £95-£99/MWh has now been accepted by the government, guaranteed for 35 years, although one source said it was still to be resolved whether some or all of this price will be subject to inflation. (1) Bloomberg reported the same day that David Hall, deputy leader for Somerset County Council, who attends strategy meetings with EDF and DECC said the strike price talks seem to be on track. “*The main message we’re receiving from all sides is, ‘Don’t panic’;*” Hall said. “*This is a very complex and important negotiation because it potentially fixes electricity prices a long way into the future. That’s going to be a challenging negotiation.*” (2)

But three days later *The Times* reported that the chances of the project going ahead are receding - one source said that the Government had made several minor concessions in recent days, but the two sides remained far apart. With EDF Energy spending £1 million a day to keep the project going, it is thought that the group will walk away if no deal is struck by the summer. (3)

By mid-May ‘sources’ close to the talks suggested that “*the mood music has changed*” with a strike price likely to be set at £93-96/MWh, but terms and conditions in the contract will prevent EDF from making ‘massive windfall profits’ from the venture and allow the Government to claw back money from the company to pass back to consumers if this looks like happening. (4)

A month later, despite yet more suggestions that the two sides were nearing agreement, Energy Minister Michael Fallon said the Government and EDF still disagree on “five or six” issues but he insisted the French company does not have the Government over a barrel. “We have Hitachi ready to come in... So we are not wholly dependent on Hinkley. We would like to do the deal with EDF but we are not going to do it at any price.” (5) It is clear, said the *Western Daily Press* that new doubts are emerging about the UK’s ability to do a deal with EDF - we have a minister as near as damn it telling us so. (6)

Nuclear advocates seem to have fallen in to the trap of believing their own propaganda, says Energy Policy lecturer, Dave Toke. That, and a belief that the Government would eventually come around to doing what was really needed to get nuclear power stations built – give them a state backed blank cheque. But blank cheques are not on offer. There are at least two reasons for this. First, it runs exactly counter to a basic premise of liberalised markets in that competition is supposed to obtain cost reductions, something that cannot happen if the costs are guaranteed like in a nationalised industry. The second is that nuclear power has technological competitors including renewable energy. How can the Government justify in a democratic polity giving a blank cheque to nuclear power when it does not do the same for more popular renewable energy and energy conservation technologies? Why should nuclear be preferred over renewables and energy efficiency? One could list other institutional obstacles of course, for example the politics of obtaining consent under EU state aid rules. Indeed the new nuclear build programme looks more and more implausible the more one delves into the detail.

In fact the headlines in the newspapers about EDF demands for £100 strike prices and 35-40 year contracts only tell part of the story. The irony is that nuclear is so uncompetitive that even these terms would be unlikely to lead to Hinkley C being built. (7)

In four or five year's time, if and when the Generic Design Assessment has been completed for the Advanced Boiling Water Reactor the energy landscape could look very different. We know that EDF is aiming to achieve a 10% return on the capital used to build the plant. Chris Goodall of Carbon Commentary does a rough calculation which suggest that a 'strike price' of £97 for solar electricity would yield a return of 11.3% on the funds committed which means solar PV is already cheaper – in good locations – than nuclear. (8)

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1. Building 3rd May 2013 <http://www.building.co.uk/news/sectors/infrastructure/hinkley-c-go-ahead-%E2%80%98imminent%E2%80%99/5054141.article>
 2. Bloomberg 3rd May 2013 <http://www.bloomberg.com/news/2013-05-03/edf-nuclear-power-talks-with-u-k-on-track-local-official-says.html>
 3. Times 6th May 2013
http://www.thetimes.co.uk/tto/business/industries/utilities/article3756956.ece?CMP=OTH-gnws-standard-2013_05_05
 4. This is Money 15th May 2013 <http://www.thisismoney.co.uk/money/markets/article-2324435/EDF-UK-closing-nuclear-deal.html>
 5. Telegraph 6th June 2013
<http://www.telegraph.co.uk/finance/newsbysector/energy/10104713/EDF-doesnt-have-us-over-a-barrel-in-Hinkley-nuclear-talks-says-Michael-Fallon.html>
 6. Western Daily Press 8th June 2013 <http://www.thisissomerset.co.uk/Hinkley-stalemate-heaps-pressure-ministers/story-19224433-detail/story.html>
 7. Dave Toke 6th May 2013 <http://realfeed-intariffs.blogspot.co.uk/2013/05/edf-boss-set-to-quit-as-new-nuclear.html>
 8. Carbon Commentary 16th May 2013 <http://www.carboncommentary.com/2013/05/16/3064>



4. Energy Price War

As we reported in April (NuClear News No.49) the Government says energy bills will be on average £166 per year in 2020 lower than they would otherwise have been without its policies. Average bills in 2013 are around £1,267; in 2020 they will be £1,331, but without policies they would be £1,496. (1)

The trouble is that DECC's argument hinges on its energy savings policies being effective. About a third of DECC's predicted savings come from EU Products Policy, which sets energy efficiency standards for electrical appliances. This means that as consumers replace their washing machines, televisions and lighting, the new models use less energy. The trouble is, says *The Telegraph*, households will have to spend thousands of pounds buying new green appliances to benefit. Millions of households, especially older people, will not necessarily be replacing their appliances within the next seven years. Many people choose to repair their old white goods when they go wrong or buy second hand ones that do not comply with the latest efficiency standards. (2)

Another 30 per cent of the savings come from government policies aimed at encouraging householders to improve the efficiency of energy use in the homes - for example through loft or cavity wall insulation. These include the older government policies and the government's new Green Deal. (3) But, so far, only 200 households have signed up to the Green Deal. Almost 19,000 homes have been assessed so far but very few householders have gone on to take out the loans. In March, Energy Minister Greg Barker said he hoped to have at least 10,000 signed up by the end of the year. (4)

Energy is likely to get more expensive in the future whatever happens. But if the government can't encourage us to reduce the amount of energy we use, there won't be much to limit the effect of future price hikes.

Now, consumer body, Consumer Futures, has published research by the Centre for Sustainable Energy on the impact of energy policy on consumers' energy bills, examining different groups by expenditure. The report, entitled 'The hardest hit', says the government's policy of charging for changes to the UK energy system mostly through electricity bills disproportionately affects those who have electric heating - many of whom are among the worst-off in society. Over two million low income families could see their annual dual-fuel bills rise by an average of £282 and rural households that rely on electricity to heat their homes could be £460 worse off by the end of the decade. (5)

Unlike DECC, which predicts consumers will save £166 on their energy bills by 2020, the report suggests that government energy policies will reduce the average household energy bill in 2020 by £31 or two per cent.

Consumer Futures' research follows a report in March by the Joseph Rowntree Foundation, which warned that the price impact of placing additional costs of energy efficiency schemes and other policies on consumer bills is disproportionate for the poorest 10 per cent in society. It says one problem with policies such as the Green Deal is that they require ready money - or the

ability to borrow it -to take advantage of them. Ian Preston, a senior analyst at the Centre for Sustainable Energy, and one of the report's co-authors, says he hopes the research will help highlight a group that he believes is still falling through the gaps when it comes to government support:

"Instead of looking at savings the average household might make, government needs to look at who might be disadvantaged disproportionately right at the start, and ensure that they are not adversely affected." (6)

The Government's predicted 2020 energy bill savings depend on households insulating their homes, but unfortunately the numbers installing insulation have fallen dramatically this year. Cavity wall insulation was fitted in 1,138 homes last month, compared with almost 40,000 in April last year. About 47,000 installations need to be carried out each month until the end of the decade to meet targets to reduce energy consumption and cap household bills. Cavity wall insulation is regarded as the cheapest and most effective mass-scale energy efficiency measure available to households. The slump underlines the lack of consumer interest in the Government's Green Deal programme, which ministers have billed as the biggest home improvement programme since the Second World War. Consumers have been reluctant to sign up to the Green Deal, possibly because of the high interest rates at 7 per cent, the inconvenience of having the work done and confusion over how it works. Insulation companies have been forced to lay off staff as their work dries up. Andrew Warren, the director of the Association for the Conservation of Energy, called on the Government to provide direct financial support to the Green Deal, such as reducing borrowing costs to more affordable levels:

"It's no wonder that the insulation industry is haemorrhaging jobs. There is a desperate need for the Green Deal to receive the kind of financial stimuli promised by the Chancellor way back in Budget 2011, but not yet delivered," he said. (7)

- Voting Labour could mean a rise in consumer energy bills of £61, while voting Conservative could mean a potential saving of £158, according to a Conservative party ad. But on closer inspection, it's a bit more complicated than that. The first claim lies with Labour leader Ed Miliband's opposition to reducing state support for large solar installations back in 2011. The Conservative's claim that householders will save £158 on their energy bill if they vote Tory stems from Cameron's announcement that the government would force energy companies to put their customer onto the cheapest possible tariff. Ofgem suggests that *"Consumers can save an average of £72 and a possible maximum of £158 per year by switching to the cheapest deal in the market for their payment method"*. (8)

Nuclear Free Local Authorities Briefings available:

- Fuel Poverty, Energy Efficiency and the Role of Local Authorities, 21st May 2013
[http://www.nuclearpolicy.info/docs/briefings/A224_\(NB110\)_Fuel_poverty_%26_energy_efficiency.pdf](http://www.nuclearpolicy.info/docs/briefings/A224_(NB110)_Fuel_poverty_%26_energy_efficiency.pdf)
- The Green Deal: Will it achieve the required cuts in carbon emissions and fuel poverty, and what can local authorities do? 20th May 2013
[http://www.nuclearpolicy.info/docs/briefings/A225_\(NB111\)_Green_Deal_%26_GIB.pdf](http://www.nuclearpolicy.info/docs/briefings/A225_(NB111)_Green_Deal_%26_GIB.pdf)



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1. DECC Press Release 27th March 2013 <https://www.gov.uk/government/news/policies-are-putting-a-cushion-between-energy-prices-and-household-bills-davey> Policy impacts on prices and bills, DECC 27th March 2013 <https://www.gov.uk/policy-impacts-on-prices-and-bills>
 2. Telegraph 27th March 2013 <http://www.telegraph.co.uk/earth/energy/9955852/Households-will-have-to-buy-green-appliances-to-benefit-from-Government-energy-bill-boasts.html>
 3. Carbon Brief 28th March 2013 <http://www.carbonbrief.org/blog/2013/03/decc-price-impacts-document-mark-2>
 4. BBC 7th June 2013 <http://www.bbc.co.uk/news/uk-politics-22815902>
 5. Telegraph 5th June 2013 <http://www.telegraph.co.uk/finance/personalfinance/consumertips/household-bills/10102247/Green-fuel-policies-will-cost-some-families-400-a-year-watchdog-warns.html>
 6. Carbon Brief 7th June 2013 <http://www.carbonbrief.org/blog/2013/06/researcher-the-government-needs-to-build-fairness-into-energy-policies>
 7. Times 29th May 2013 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3777315.ece>
 8. Carbon Brief 3rd June 2013 <http://www.carbonbrief.org/blog/2013/06/conservative-infographic-compares-apples-and-elephants-on-energy-bills>

5. Hinkley Legal Actions

Greenpeace and the National Trust of Ireland have both begun legal challenges against the UK government decision to grant planning permission for a new nuclear plant at Hinkley Point. The National Trust (known as An Taisce in Irish) has said the Irish people should have been consulted before approval was granted. An Taisce said the proposed plant is as close to the Irish coast as it is to London, and is closer to Dublin than it is to Leeds. (1)

The UK Government decided the Hinkley project isn't '*likely to have significant effects*' on the environment in Ireland, so it decided it didn't need to consult Ireland or any other country. Unlike the rest of pre-application consultation, transboundary consultation is a duty on the government rather than the developer. (2)

Greenpeace is challenging the decision on the grounds that the Government has yet to secure a site to store the plant's nuclear waste. If the application for a judicial review is granted, the huge project could be hit by months, if not years, of legal wrangling. Leila Deen, Greenpeace energy campaigner, said the Government "*appears to have proceeded on the basis of 'optimism' that a waste facility can be found*". But she added: "*With Cumbria Council having refused to host one, and no other candidate site on the table, there is absolutely no basis for that optimism.*" The Government's defence, filed at the High Court, said there was "*no sustainable basis*" for the judicial review and it should be dismissed. (3)

Greenpeace claims that the withdrawal of Cumbria County Council (CCC) from the development of a long-term nuclear waste disposal facility means that it is not currently possible to grant consent for a new nuclear power station according to government policy. Greenpeace rely on what they call 'the Policy Test', which comes from a government white paper from 2008, 'Meeting the Energy Challenge – a White Paper on Nuclear Power', and is as follows: "*Our policy is that before development consents for new nuclear power stations are granted, the Government will need to be satisfied that effective arrangements exist or will exist to manage and dispose of the waste they will produce.*"

When the government granted consent for Hinkley it dealt with the CCC withdrawal in the decision letter by referring to a written ministerial statement given by Secretary of State for Energy and Climate Change Ed Davey MP at the time. Greenpeace says the remark that '*I am optimistic that a site for the GDF will be found*' is watering down the 2008 policy. (4)

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1. Utility Week 2nd May 2013 http://www.utilityweek.co.uk/news/news_story.asp?id=198499&title=Lawyers+seek+voice+for+Irish+on+Hinkley+Point+C
 2. Bircham, Dyson & Bell 6th June 2013 <http://www.bdb-law.co.uk/our-insights/blogs/planning-act-2008-blog/2013/06/457-sixteen-grounds-for-judicial-reviews-of-planning-act-decisions>
 3. Western Daily Press 31st May 2013 <http://www.thisissomerset.co.uk/Greenpeace-challenge-delay-Hinkley-Point-C-years/story-19146342-detail/story.html>
 4. Bircham, Dyson & Bell 6th June 2013 <http://www.bdb-law.co.uk/our-insights/blogs/planning-act-2008-blog/2013/06/457-sixteen-grounds-for-judicial-reviews-of-planning-act-decisions>



6. Nuclear Waste – where next after Cumbria?

In line with Secretary of State Edward Davey's written Ministerial statement of 31 January 2013, the Government has been considering what lessons can be learned from the experiences of the Managing Radioactive Waste Safely (MRWS) programme in west Cumbria and elsewhere. It wants to hear views on the site-selection aspects of the ongoing MRWS programme, particularly from those who have been engaged in (or have been interested observers of) the MRWS process to date. The responses to this call for evidence will inform a consultation that will follow later in the year. Unfortunately this pre-consultation closes on 10th June. (1)

Energy Minister Baroness Verma said: "[We] continue to hold the view that the best means of selecting a site for a geological disposal facility (GDF) is an approach based on voluntarism and partnership. Evidence from similar waste disposal programmes abroad, for example in Finland, Sweden and Canada, shows that this approach can work." (2)

Several respondents, including the Nuclear Free Local Authorities are calling for less emphasis to be placed on building a Geological Disposal Facility (GDF) and more on the detail of a programme of R&D into other management options which could offer an alternative to a GDF. These management options will, in any case, be required firstly while GDF options are being developed and secondly should the DGR option not prove possible.

NuLeAF – the Local Government Association's Nuclear Legacy Advisory Forum - says DECC should give firmer guarantees to any future prospective host community on the right of withdrawal up to the point of GDF construction and that any agreed community benefits package will be delivered over the many political cycles spanned by a GDF project. (3) Eddie Martin, former leader of Cumbria County Council agrees that the importance and absolute certainty of a veto, and the opportunity to withdraw from the process at any point, enshrined within primary legislation was paramount. He also said the Council sought clarifications and assurances from Government that its in-principle agreement to a package of Community Benefits would be translated into early practical economic actions. No such assurances were forthcoming.

Martin raised the issue of geology too. He said the UK approach departed from that of other countries, such as Finland and Sweden where more was known about a region's geology before the relevant communities came forward. The intervention of Professors Smythe and Hazeldine and other eminent geologists was one of the factors that led to such a high level of objection from the public to moving to Stage 4.

The local group Solway Plain Against Nuclear Dumping (SPAND) said the single greatest failure of the MRWS site selection process was ignoring geological suitability until stage 4 of the six stage process, beyond the most rudimentary screening. On the question of volunteerism, the group points to the almost complete failure of the MRWS consultation process in Cumbria. An opinion poll carried out in early 2012 showed that 80% of those questioned knew little or nothing about the proposal. 85% of town and parish councils across Allerdale and Copeland which voted, opposed the move to stage 4, and yet they were ignored by the executive members of these borough councils. They had to rely on Cumbria County Council to reflect their strong

opposition and stop the process. If this is a voluntary process, SPAND says, town and parish councils must be given the option to withdraw from the site selection process at any time.

Some respondents also raised the need to devote all efforts in the short term to procuring better and safer interim storage of nuclear waste at Sellafield.

Friends of the Earth West Cumbria and North Lakes (FoE-WCNL) complained that the Government continues to conflate support from local authorities with support from local communities. The Government says the fact that Allerdale and Copeland Borough Councils voted in favour of continuing the search for a potential site for a GDF demonstrates that “communities” recognise the substantial benefits that are associated with hosting such a facility. Yet there were many communities – at the Parish and Town level of local government and ad-hoc groups - which clearly stated they did not support continuing the process. A new initiative by DECC (June 6th 2013) on wind turbines makes a clearer distinction between local councils and local residents living near to proposed wind farm sites, giving residents greater rights over objecting. It is therefore evident that DECC is capable of conceiving of policy with more clarity as to the distinction between local authorities and 'communities'. It cannot with any credibility continue to conflate the two.

FoE-WCNL continues: *“The final MRWS report highlighted a lack of trust as a fundamental overarching issue in Cumbria. If this is to be rectified then DECC need to do a lot of work to demonstrate that it truly understands what is involved in voluntarism, and to show greater respect for those who it seeks to invite to volunteer. Without these, voluntarism will be impossible. The evidence from this consultation exercise is not encouraging.”*

Professor David Smythe highlights the fact that civil nuclear power has been in existence for 60 years, and not a single one of the 32 countries with nuclear reactors has yet opened a GDF for intermediate or high-level waste. It is irresponsible to continue producing such waste without any clear means of what to do with it. He calls for geological screening to take place *before* volunteer communities are asked to come forward. *“There are no hard rocks in low-relief terrain to enable the examples of Finland and Sweden to be followed; therefore it should search for clay host rocks similar in properties to those being investigated in Belgium, France and Switzerland. There are several clay formations of adequate thickness and hydrogeological properties in eastern and southern England. But until it earns the trust of the public it will continue to encounter problems of nimbyism even if the geology can be shown to be sound.”*

Smythe continues: *“the UK is back at the stage that Finland, Sweden and France were at thirty or more years ago. It should be recognised [that the] next quarter of a century, at least, must be devoted to thorough research into waste encapsulation and secure surface storage, together with honest and transparent search for a satisfactory repository site elsewhere than in West Cumbria.”*

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1. DECC 13th May 2013 <https://www.gov.uk/government/consultations/managing-radioactive-waste-safely-call-for-evidence-on-the-siting-process-for-a-geological-disposal-facility>
 2. Process Engineering 14th May 2013
<http://processengineering.theengineer.co.uk/environment/1016298.article>
 3. NuLeaf Letter 27th March 2013
http://www.nuleaf.org.uk/nuleaf/documents/Letter_to_Mark_Higson_re_MRWS_process.pdf



7. Move it, dilute it and disperse it – Radwaste Management UK-style

The Nuclear Decommissioning Authority (NDA) has once again been using decommissioning as an excuse to transport waste around the country, and increases radioactive discharges to the environment, rather than sticking to its original objective of cleaning up the UK nuclear legacy in “ways which protect the environment for the benefit of current and future generations”. (1) Predictably this has led to a number of rows around old nuclear sites.

Many of the old Magnox reactor sites are home to stores of Fuel Element Debris (FED), which consists of the splitters or lugs - essentially “fins” that optimised in-reactor fuel element cooling during generation - removed from Magnox fuel elements before the spent fuel is sent to Sellafield for reprocessing. These splitters or lugs, like the fuel casing itself, are made of a magnesium alloy. Magnesium is inherently a reactive metal.

At Berkeley, Hunterston A and Trawsfynydd FED is packaged for long-term storage and disposal, and the construction of interim waste storage facilities has made progress. At Dungeness A station a “Magnox Dissolution Plant” was built in the later 1980s. (2) This has treated FED with acid, reducing the solid waste volume by a factor of about 20 but discharging about 15% of the radioactivity into the environment. Costain was awarded a contract to build a similar plant at Bradwell in September 2010. (3) Construction of this plant is expected to be completed in July 2013 – later than originally planned. (4) FED was not generated at Wylfa because desplitting of spent fuel elements was not undertaken at the site. (5)

That leaves Sizewell A, Oldbury and Hinkley Point A where a decision still has to be made about what to do with FED.

The NDA says treatment by dissolution has already been identified as the preferred approach “within site-specific Best Practicable Environment Option (BPEO) studies”. The reduction in solid waste volumes has the knock-on effect of reducing the size of store required for interim storage of ILW though it does lead to some discharges of radioactive and non-radioactive by-products to the environment. But now the NDA wants to reduce the number of facilities it needs to build by transporting FED waste between sites. Whilst the total volume and amount of radioactivity discharged across the country would not increase, it would, of course, go up at the sites where a dissolution facility is built to receive waste from more than one site.

A long list of options has been whittled down to nine. All nine involved building a dissolution plant at Hinkley – four involve bringing waste from either Sizewell or Oldbury or both to Hinkley. Two involve using the existing Dungeness plant and one involves building a new plant at Dungeness.

The NDA originally wanted comments on their options paper by 9th June, but this has now been extended to 30th June. (6)

At the same time the NDA has published a Strategy Paper on optimising the number and location of Interim ILW Storage Facilities on Magnox and existing EDF Sites in England and Wales, again for comment by 30th June. (7) The aim of the paper is “to establish which sites are

the most appropriate locations for interim storage of Intermediate Level Waste across Magnox and EDF Energy Sites within England and Wales.” The paper presents 8 “credible” options. (8)

A similar exercise was carried out in Scotland last year. The proposals considered options for moving waste between various sites, for example from Torness to Rosyth, (9) but the final preferred option only involved moving waste from Hunterston B to Hunterston A. (10)

Confusingly the options paper for England and Wales only looks at Magnox options. A shared approach with EDF Energy will be considered at the next stage in November 2013. All 8 options involve stores at Berkeley, Hinkley Point A, Bradwell and Trawfynydd. Some of the options involve moving waste, for example from Oldbury to Berkeley, Dungeness to Hinkley and Dungeness and/or Sizewell to Bradwell.

According to East Anglian Daily Times, in relation to both the FED and ILW consultations the option most likely to be adopted is the creation of a plant which uses acid to part-dissolve debris from the station’s uranium fuel elements and the building of a £10m store capable of holding the residue from this process and tonnes of other radioactive waste. However, the options also include the transport of fuel element debris to another power station site or the use of the Sizewell site for the processing of debris from other stations, as well as its own. Pete Wilkinson, a Suffolk-based environment consultant, said plans to treat fuel element debris amounted to a policy of “*dissolve and disperse*” as the process would lead to radioactivity being discharged to sea and air. “*You would simply be moving the problem from the site to the environment.*” (11)

Chelmsford Weekly reported that a storage facility for intermediate level waste at Bradwell is nearing completion at a cost of £12million, but now there are fears that Bradwell is set to become a “nuclear dumping ground” as waste from Sizewell and Dungeness are moved to the site in an effort to save money. (12)

In Somerset, a row has broken out because neither West Somerset Council, Stogursey residents or Sedgemoor District Council have been directly asked for their views on either of these NDA consultations. District councillors said they had only discovered the consultations by chance. Of the 8 ILW storage options only one involves the transport of waste from another site - Dungeness in Kent - to Hinkley Point. But 4 of the 9 FED options involve Hinkley A taking on waste from either Sizewell A in Suffolk or Oldbury in Gloucestershire or from both. West Somerset Council is likely to strongly object to many of the NDA’s options. Cabinet members are understood to be aghast at the increased risk posed to local people by transporting waste from elsewhere in the UK to Hinkley and angered by the lack of direct consultation with the NDA. (13) Proposals to transport nuclear waste to Hinkley ignore public health and safety, according to West Somerset Council’s Cabinet. (14) The Cabinet also recommended that the NDA be requested to ensure that the council was involved in all discussion and consultations, at all stages, on the development of the strategy for the intermediate storage and treatment of fuel-element debris at Magnox sites. (15)

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1. Managing the Nuclear Legacy White Paper, DTI, July 2002
http://www.nda.gov.uk/documents/upload/white_paper_managing_the_nuclear_legacy_a_strategy_for_action.pdf
 2. See <http://www.no2nuclearpower.org.uk/articles/MagnoxDissolution020.pdf>



3. Construction Enquirer 29th September 2010 <http://www.constructionenquirer.com/2010/09/29/costain-wins-75m-nuclear-clean-up-job/>
4. <http://www.nda.gov.uk/sites/bradwell/index.cfm?renderforprint=1>
5. See <http://www.magnoxsites.com/UserFiles/File/publications/environmental%20reports/WylfaSEABaselineV1formatted.pdf>
6. NDA Press Release 10th May 2013 <http://www.nda.gov.uk/news/fed-treatment-options.cfm>
7. NDA Press Release 10th May 2013 <http://www.nda.gov.uk/news/ilw-storage-options-england-wales.cfm>
8. NDA Credible Options Paper: Optimising the number and location of interim ILW storage facilities on Magnox Ltd and EDF Energy sites in England and Wales. NDA May 2013 <http://www.nda.gov.uk/documents/upload/Optimising-the-number-and-location-of-interim-Intermediate-Level-Waste-storage-facilities-on-Magnox-Limited-and-EDF-Energy-sites-in-England-and-Wales-Credible-Options-Main-Paper-May-2013.pdf>
9. See Safe Energy Journal December 2012 http://www.no2nuclearpower.org.uk/documents/SAFE_ENERGY_No57.pdf
10. Intermediate Level Waste Storage Solutions, Central and Southern Scotland Preferred Option, NDA April 2013 <http://www.nda.gov.uk/documents/upload/Intermediate-Level-Waste-Storage-Solutions-Central-and-Southern-Scotland-Preferred-Option-April-2013.pdf>
11. East Anglian Daily Times 14th May 2013 http://www.eadt.co.uk/news/sizewell_a_new_nuclear_waste_store_could_be_set_for_decommissioned_site_1_2189124
12. Chelmsford Weekly News 22nd May 2013 http://www.chelmsfordweeklynews.co.uk/news/maldon/10434689.Bradwell__Fears_village_will_become_nuclear_dumping_ground/
13. West Somerset Free Press 24th May 2013 <http://www.west-somerset-today.co.uk/news.cfm?id=17444>
14. Burnham-on-sea.com 6th June 2013 <http://www.burnham-on-sea.com/news/2013/nuclear-waste-06-06-13.php>
15. Western Daily Press 6th June 2013 <http://www.thisissomerset.co.uk/Concern-plans-store-nuclear-waste-Hinkley-Point/story-19206109-detail/story.html>

8. Nuclear Subsidies – could cost consumers up to £1 trillion

Last month we reported that the House of Commons Environmental Audit Committee has launched an inquiry into Energy Subsidies in the UK. The inquiry kicked off on 24 April with evidence from Dr William Blyth of Oxford Energy Associates who produced a detailed analysis of the extent of energy subsidies in the UK for the committee. Blyth said: “*Despite Ministerial announcements as recently as October 2010 that there would be no public subsidies for new nuclear plant, it is apparent that several subsidies will in fact be in place.*” (1)

The Energy Fair group, which specialises in highlighting subsidies to nuclear power has now made its submission. The group says subsidies for nuclear power have the effect of diverting resources away from techniques and technologies which are cheaper and altogether more effective as a means of meeting our energy needs. Existing subsidies should be withdrawn and no new ones should be introduced. Renewables have clear advantages in cost, speed of construction, security of energy supplies, and effectiveness in cutting emissions of CO₂. There are more than enough to meet our needs now and for the foreseeable future, they provide diversity in energy supplies, and they have none of the headaches of nuclear power. (2)

Energy Fair describes seven existing subsidies for nuclear power:

- *Limitations on liabilities:* The operators of nuclear plants pay much less than the full cost of insuring against a Chernobyl-style accident or worse.
- *Underwriting of commercial risks:* The Government necessarily underwrites the commercial risks of nuclear power because, for political reasons, the operators of nuclear plants cannot be allowed to fail.
- *Subsidies in protection against terrorist attacks:* Because protection against terrorist attacks can only ever be partial, the Government and the public are exposed to risk and corresponding costs.
- *Subsidies for the short-to-medium-term cost of disposing of nuclear waste:* In UK government proposals, the Government is likely to bear much of the risk of cost overruns in the disposal of nuclear waste.
- *Subsidies in the long-term cost of disposing of nuclear waste:* With categories of nuclear waste that will remain dangerous for thousands of years, there will be costs arising from the dangers of the waste and the need to manage it. These costs will be borne by future generations, but they will receive no compensating benefit.
- *Underwriting the cost of decommissioning nuclear plants:* In UK government proposals, the Government is likely to bear much the risk of cost overruns in decommissioning nuclear plants.
- *Institutional support for nuclear power:* the UK government is providing various forms of institutional support for the nuclear industry.

The removal of just the first of these subsidies - insurance costs - even at the lowest level (€ 0.14 per kWh), would increase the cost of nuclear power to at least £200 per MWh - substantially more than the unsubsidised cost of offshore wind power (about £140 per MWh).

Four other subsidies for nuclear power are proposed as part of the Government's Electricity Market Reforms:

- *Exemption from tax.* The "carbon price floor", introduced in the Finance Act 2011, is, in effect, a subsidy for nuclear power because it is a *de facto* tax on fuels used for the generation of electricity, and uranium is exempted from that tax.
- *Contracts for difference.* Although it is a mature technology that should not need subsidies, nuclear power would be eligible for the same system of subsidies as is proposed for renewable sources of power.
- *Capacity mechanism.* The UK government's proposals for a "capacity mechanism" as a backstop for the power supply system are not yet finalised. However, there is potential for the proposed mechanism to be used to provide unjustified support for nuclear power.
- *Emissions Performance Standard.* Although peer-reviewed research shows that nuclear power emits substantially more fossil carbon than wind power, it appears that the effect of the proposed new standard would, for the foreseeable future, be to lump them together as if they were equivalent in their carbon emissions.

A submission from the Association for the Conservation of Energy argues that new reactors will require an unnecessary spending of the between £19 and £396 per year for 40 years by every single person in the UK. That amounts to a total of between £1.19 billion and £24.97 billion per year and between £47.6 billion and £998.8 billion over the 40 year period. It comes to this conclusion by comparing 'Energy Pathways', using DECC's model involving no more nuclear power stations with equivalent government pathways. The alternative pathways all achieve an 80% reduction in CO₂ emissions by 2050 and keep the lights on. In fact the evidence points to the alternative pathways being more reliable than the equivalent government pathways because they all rely on less imported energy than the government pathways.

EU's energy commissioner, Günther Oettinger's describes the UK's plan to hand out long-term contracts to nuclear companies as "Soviet". (3)

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1. See <http://www.parliament.uk/business/committees/committees-a-z/commons-select/environmental-audit-committee/inquiries/parliament-2010/energy-subsidies-in-the-uk/energy-subsidies-in-the-uk---further-information/>
 2. PR Newswire 31st May 2013 <http://www.prnewswire.co.uk/news-releases/no-valid-justification-for-subsidising-nuclear-power-209624311.html>
 3. Guardian 1st May 2013 <http://www.guardian.co.uk/environment/2013/may/01/nuclear-power-soviet-eu-energy-commissioner>



9. Wylfa

Despite missing the original 2012 closure date for Magnox reprocessing which was the date set in order to meet the UK's commitments to the international OSPAR Treaty on pollution in the North East Atlantic, the life of the last remaining Magnox reactor -Wylfa reactor 1 on Anglesey could be extended yet again by another 15 months. At the moment Wylfa is expected to stop producing power in 2014, but now it could continue until December 2015. Magnox said it wanted to ensure it maximised any electricity generating potential in the remaining fuel. The plans are subject to Periodic Safety Review (PSR) approval. (1)

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1. BBC 20th May 2013

<http://www.bbc.co.uk/news/uk-wales-north-west-wales-22604125>



10. Radiation Monitoring

The Food Standards Agency (FSA), responsible for the monitoring of radioactivity in food, is proposing to “*optimise*” its monitoring efforts – in other words reduce the scope and volume of its annual environmental monitoring and analysis programmes. FSA argues that, since “*an annual monitoring programme has been in place for more than 25 years and no food safety risks have been identified during this period*”. Tim Deere-Jones has dissected the UK system for monitoring doses of marine derived radioactivity in food for *The Ecologist Magazine* and concludes that the current programme is deeply flawed.

2013 has seen a major surge in the potential for expansion of UK nuclear power. In February, the Environment Agency (EA) found no objection to the discharge and disposal of radioactive wastes from two proposed EPR reactors at Hinkley. The FSA’s proposal to “*optimise*” the monitoring programme by “*reducing background monitoring away from nuclear sites*” while continuing to “*monitor food around all licensed nuclear sites*” is not a viable proposal for monitoring in the context of the proposed future expansion of nuclear power, and radioactive waste discharges to sea, in the UK. On the contrary Deere-Jones says the FSA should adopt a more stringent and intense monitoring programme with a higher number of sampling observations, analysis for a greater number of representative isotopes, a more intensive study of “*far field*” sites (such as island and coastal communities), a more intensive link between sample gathering and the “*peaks*” of pulsed discharge, and more intense research into both the dietary and inhalation impacts of the sea to land transfer of radio-nuclides and the contribution of marine radioactivity to coastal zone terrestrial diets. (1)

Meanwhile, the number of radioactive particles found on Seascale beach near Sellafield was three-times-higher-than-average following storms in February. Numbers are now said to be back to normal. Experts want to make sure there is also no risk to the public’s health from radioactive particles on the seabed off the Cumbrian coast. But reassurance work has to be done at the right price because there are far greater potential hazards to be dealt with at Sellafield. The Environment Agency (EA) is now looking into risk associated with particles found on the seabed where monitoring is taking place. (2)

1. Ecologist May 2013

http://www.theecologist.org/News/news_analysis/1915331/uk_government_failing_to_protect_population_from_potentially_radioactive_food.html

2. In Cumbria 10th May 2013 <http://www.in-cumbria.com/number-of-radioactive-beach-particles-soared-threefold-1.1055311>

11. MOX Madness

The Sellafield MOX Plant (SMP), which was closed down two years ago, has left taxpayers with a £2.2bn bill instead of turning a healthy profit. An internal report revealing the full extent of the failure of the Sellafield Mixed-Oxide (MOX) plant (1) concluded that the facility was “*not fit for purpose*” and its performance over a decade was “*very poor*”.

The report is embarrassing for the Government which is proposing to build a new MOX plant at Sellafield to deal with Britain’s civil plutonium stockpile – the biggest in the world. Campaigners and MPs claimed that the report’s account of the events at Sellafield fatally undermined the case for any further attempts to profit from the MOX process, which uses reprocessed plutonium to make fuel for civil nuclear power plants. (2)

The report concludes with a list of 12 lessons to be learned “*if a decision is made to construct a new MOX plant in the UK*”, including demands for realistic costing and planning, robust governance and “*not carrying on when issues arise until there is clarity on the cost implications and scale of the correction that is required*”. The energy minister Charles Hendry shocked the anti-nuclear lobby in December with the announcement that the used plutonium in Sellafield should be converted into MOX fuel for possible use in a new generation of reactors. The Labour MP Michael Meacher, who was environment minister when SMP was completed, said: “*The history of the first MOX plant ... makes this decision almost unbelievable. What hasn't been highlighted is what a rip-off the entire project was from the start,*” he said.

A Government consultation document published on 28th May 2012, set out the proposed process for both making applications and justification decisions concerning the reuse of plutonium. This set out the preferred approach; to produce generic guidance to applicants which, rather than being limited specifically to the consideration of applications which are for the reuse of Plutonium as MOX, will additionally enable applications for a wide range of potential reuse technologies.

The Government has now responded to that consultation, and continuing to set things up so that new reactors will have the option of using MoX fuel.(3) In response to the justification consultation Greenpeace said the Government ‘confirmed’ reuse of plutonium as its preferred policy option, on its own admission, on the basis of incomplete information, *and* without taking proper account of the emerging findings from the Fukushima nuclear disaster. The justification consultation seeks to take the favoured option a step forward, and in doing so risks locking in a poor policy decision, in producing Guidance for the ‘Justification’ of plutonium reuse. Greenpeace viewed the consultation as premature and unduly restrictive of the UK’s options for managing its plutonium waste stocks.

The Nuclear Decommissioning Authority is currently considering a 1,000-page report detailing a nuclear reactor called PRISM (Power Reactor Innovative Small Module). Developed by GE and now part of the GE Hitachi Nuclear Energy portfolio, PRISM is designed to run on fuels that would normally be considered waste products: the transuranic (that is, heavier than uranium) metals found in spent nuclear fuel, and plutonium. (4)

1. **Sellafield MoX Plant: Lessons Learned Review 18/07/12**
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/200546/foi_smp_report.pdf
2. **Independent 9th June 2013** <http://www.independent.co.uk/news/uk/politics/revealed-2bn-cost-of-failed-sellafield-plant-8650779.html>
3. **DECC 13th May 2013**
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/198006/cons_resp_proposed_justification_process_reuse_plutonium.pdf
4. **Engineer 13th May 2013** <http://www.theengineer.co.uk/energy-and-environment/in-depth/prism-project-a-proposal-for-the-uks-problem-plutonium/1016276.article>



12. Where now for decarbonisation?

Tim Yeo MP's amendment to the Energy Bill which would have inserted a target to decarbonise the UK's electricity generation by 2030 was narrowly defeated in the House of Commons.

Andy Atkins, executive director of Friends of the Earth, said:

"The Liberal Democrat leadership's green credibility has been left in tatters after siding with the Conservatives to back a headlong dash for gas – this would send fuel bills rocketing and jobs overseas, and punch a gaping hole in our climate targets. With significant numbers of MPs defying the party whip to join the opposition by voting for clean power, this issue will not go away."

Investment in the UK's renewable energy has fallen to a seven-year low, according to recent research by Bloomberg New Energy Finance, as investors have been spooked by the contradictory messages coming from government. Many on the right of the Conservative party have become more vociferous in their opposition to alternative energy, and more outspoken in voicing doubts over climate change science. (1)

So where does that leave plans to switch to low-carbon energy sources while keeping consumer bills down? The Energy Bill contains a package of measures aimed at changing the way the UK generates electricity, shifting the country from fossil fuels to nuclear and renewables. But the Committee on Climate Change (CCC) has said if the government wants to meet its legally-binding emissions reductions, it should create an interim target to virtually decarbonise the power sector by 2030. (2)

The 2030 target is actually in the Bill, but the Government won't decide whether to implement it until 2016. The government has a target to supply 15% of total energy from renewables by 2020 - and it has made a plan for how to do it. But there doesn't seem to be a plan for beyond 2020, and the gas strategy launched in December suggested the possibility of significantly expanding the amount of power the UK gets from gas - threatening carbon targets.

British households would save an average of £1,600 apiece, if the government agreed to the decarbonisation target according to the CCC. (3) The committee said that while "decarbonising" the energy supply will cost more in the next few years the expense will quickly become negligible and will start paying handsome dividends after 2030. This makes it essential for the government to stimulate tens of billions of pounds of investment in low-carbon energy by agreeing to a 2030 target, according to the CCC. (4) In other words investing in new renewable power generation, rather than a "dash for gas", will be the lower-cost option for keeping the lights on while cutting greenhouse gas emissions. (5)

It's worth pointing out that the CCC report is based on a crucial assumption – that the UK government and governments worldwide will be committed to decarbonising in the future. The greatest economic benefits from investing in low carbon would come after 2030 – which, when the next election is in just two years, is a long time in politics. (6)

The report from the Committee on Climate Change arguing that investing in renewable energy would eventually save consumers a lot of money is spot on, says Ashley Seager, managing director of AEA Solar GmbH, in The Guardian. We are regularly told by conventional utility



companies, many politicians and commentators that energies such as solar and wind are hopelessly expensive and reliant on enormous subsidy. But this is simply wrong. Renewables have seen such dramatic price falls in the past few years that they are threatening to upset the world as we know it and usher in an almost unprecedented boom in the spread of cheap, clean, home-produced energy. Solar will be the cheapest form of power in many countries within just a few years. In places such as California and Italy it has already reached so-called “grid parity”. Onshore wind, on a piece of land not constrained by years of planning delays, is already the cheapest form of energy on earth. These are not wild claims – those are figures from General Electric, Citibank and others. Three years ago solar PV cost about €3,600 per installed kilowatt of solar capacity on barn roofs in Germany. Today it can be done for just over €1,000 – a staggering 70% fall. That is seriously cheap and will just keep getting cheaper. Just to be clear – Germany (Europe’s biggest economy) now gets 25% of its electricity from renewables – a proportion that is increasing by the month. This is twice the level of the UK. Germany is also leading on figuring out how to overcome the problems of “intermittency” by storing renewable energy, and nuclear power is already a thing of the past. (7)

A decarbonisation target, of course, would also support nuclear power, which is why it is important to set a new Europe-wide renewable energy target for 2030. Unfortunately the UK Government plans to block new EU-wide renewable energy targets. Ed Davey, the energy and climate Secretary, opposes any new goals on increasing the share of renewable energy in electricity generation, but argues instead for tough carbon emission targets. (8)

He wants Brussels to set an emissions reduction target of 50 per cent on 1990 levels by 2030 within an international deal, or go it alone with a 40 per cent goal if an agreement cannot be struck. This will mean the UK making its own contribution by cutting emissions by 50 per cent by 2025. But Mr Davey said each country should be able to cut their own emissions how they choose, for example nuclear, rather than having to do it all through switching to renewables. As a consequence he is against a European Union wide renewable energy target because it is “inflexible and unnecessary.” (9)

Investment in green energy in the UK has plummeted to its lowest level in seven years, according to new figures from Bloomberg, with campaigners claiming that much of the blame can be pinned on the Government’s failure to set a target date for cleaning up the power sector. The figures show clean energy investment has fallen from £7.2bn in 2009 to under £3bn last year – and is heading below £1.9bn in 2013. (10)

The decarbonisation target was only defeated by 23 votes. If just 12 more Lib Dem backbenchers had voted in line with their party’s official position it would have succeeded. This means that it is inevitable the House of Lords will take a very close look at the amendment. Green campaigners are pretty confident enough peers will back the amendment to create an almighty headache for the government. The House of Lords is due to discuss the Energy Bill later this month. (11)

1. Guardian 4th June 2013 <http://www.guardian.co.uk/environment/2013/jun/04/decarbonisation-target-defeated-energy-bill-vote>

2. Carbon Brief 4th June 2013 <http://www.carbonbrief.org/blog/2013/06/the-decarbonisation-target-didnt-pass-what-now>



3. **Committee on Climate Change 23rd May 2013** <http://www.theccc.org.uk/publication/next-steps-on-electricity-market-reform-23-may-2013/>
4. **Independent 23rd May 2013** <http://www.independent.co.uk/environment/climate-change/switch-to-lowcarbon-future-would-save-households-1600-8628138.html>
5. **Guardian 24th May 2013** <http://www.guardian.co.uk/environment/2013/may/23/renewable-energy-committee-climate-change>
6. **Carbon Brief 23rd May 2013** <http://www.carbonbrief.org/blog/2013/05/climate-change-committee-report-on-emr>
7. **Guardian 1st June 2013** <http://www.guardian.co.uk/commentisfree/2013/jun/01/renewable-energy-clean-cheap-uk>
8. **Guardian 26th May 2013** <http://www.guardian.co.uk/environment/2013/may/26/green-campaigners-attack-government-climate-change>
9. **Telegraph 26th May 2013** <http://www.telegraph.co.uk/culture/hay-festival/10081250/Hay-Festival-2013-global-warming-is-fairly-flat-admits-Lord-Stern.html>
10. **Independent 2nd June 2013** <http://www.independent.co.uk/environment/green-living/investment-in-green-energy-falls-to-fouryear-low-8640849.html>
11. **Business Green 4th June 2013** <http://www.businessgreen.com/bg/james-blog/2272728/energy-bill-decarbonisation-target-its-not-over-yet> and **Edie 5th June 2013** <http://www.edie.net/news/6/Decarbonisation-target-still-on-the-cards-as-hopes-turn-to-House-of-Lords/>



13. Green Investment Bank

Every street light in Scotland could be fitted with low-energy LED bulbs as part of an ambitious plan to cut carbon emissions. The Scottish government unveiled proposals for the green investment bank (GIB) to fund the Scotland-wide LED lighting programme as part of a £500m package of climate and green energy measures. LED street lights, which are being piloted by several Scottish councils and are already in use by a number of English local authorities, were floated by Alex Salmond, the first minister, in a meeting with the GIB chair Lord Smith of Kelvin. (1)

Meanwhile more than 60 wood pellet-burning biomass boilers are to be installed in leisure centres, schools and other community facilities following a £10 million injection involving the GIB. The scheme's backers hope that the project will demonstrate to businesses that they can cut both their energy bills and their carbon emissions by switching to biomass boilers. Woodpecker Energy, which is based in Somerset but makes its boilers in Northern Ireland, has secured £4.1m from Energy Saving Investments (ESI), a fund managed by Equitix. The GIB pumped £50m into Equitix's ESI fund in August, with private sector investors stumping up match funding.

GIB will attempt to kick-start Britain's stalled offshore wind farm programme by promising finance. It has begun talks with energy companies and other wind farm developers about buying minority equity stakes worth between £75 million and £100 million in projects yet to make it off the drawing board. The bank, which to date has only taken stakes in operational wind farms, hopes that its backing will encourage other investors such as sovereign wealth funds to come on board. To meet the UK's ambitious 2020 renewable energy targets an estimated £40 billion needs to be spent to build dozens of giant offshore wind farms totalling 18 gigawatts. Just over 3 gigawatts, mostly in the North Sea, is in operation today. (3)

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1. Guardian 9th May 2013 <http://www.guardian.co.uk/environment/2013/may/09/street-lamps-scotland-low-energy-bulbs>
 2. Scotsman 18th May 2013 <http://www.scotsman.com/business/management/10m-wood-pellet-roll-out-for-green-investment-bank-1-2935191>
 3. Times 25th May 2013 <http://www.thetimes.co.uk/tto/business/industries/naturalresources/article3774868.ece>



14. Renewable Notes

Dozens of “windcrofters” are emerging across Scotland under a new drive that offers landowners free power in exchange for allowing developers to erect mini-turbines on their property. The renewables industry scheme Energise Scotland targets smallholders and communities who cannot afford to buy expensive green technology. Under the deal, each property hosts a single small-scale turbine, with investors covering all the installation, planning and maintenance costs. Landowners receive free electricity while developers reap returns in the form of payouts for excess energy, which is sent to the national grid. Anti-wind farm protest group, Scotland Against Spin, said the initiative was more likely to benefit turbine firms and investors than smallholders. But Scottish turbine manufacturer Kingspan Wind, which launched the scheme last month, said windcrofting could help thousands of consumers and was likely to take over from larger, more controversial wind farms. (1)

Benj Sykes, the UK manager for wind power at Dong Energy, says Dong has a clear strategy for cutting the cost of offshore wind to £85 per megawatt hour for projects we will be sanctioning in 2020 – a cost reduction of up to 40 per cent compared with today and a challenging target that we will meet by building bigger wind farms, using more powerful turbines, and continuing to make renewable technologies competitive with traditional energy sources. In order to deliver these cost reductions, we need to capture economies of scale, and that can only be achieved by developing a strong pipeline of projects within a clear and stable policy framework. (2)

Preparations are under way to create a tidal lagoon off the Westcountry coast. Sea bed investigation work is about to begin in the Bristol Channel and detailed plans could be submitted for approval in the autumn, with generation starting as early as 2017. Tidal Lagoon Power Ltd, is behind the scheme, which is said to be the world’s first purpose-built tidal energy lagoon. The £650 million project at Swansea bay aims to be the first of a network of lagoons around the UK coastline. It would harness the huge tidal range of the channel, the second highest in the world, using ebb and flood tides to produce 240 MW of green electricity.(3)

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1. Scotland on Sunday 26th May 2013 <http://www.scotsman.com/scotland-on-sunday/scotland/mini-turbine-windcrofters-emerge-across-scotland-1-2944837>
 2. Independent 29th May 2013 <http://www.independent.co.uk/news/business/comment/benj-sykes-green-and-cheap-energy-suppliers-need-policy-signal-to-achieve-both-8635322.html>
 3. Western Morning News 28th May 2013 <http://www.westernmorningnews.co.uk/VIDEO-West-green-energy-guru-lagoon-power-plan/story-19111474-detail/story.html>