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1. Taking Stock for 2012

The start of a new year is a good time to take stock. Here we look back at the Government's so-called "*facilitative actions*" to speed up the development of new nuclear reactors in order to see where we have got to, and remind ourselves what has happened over the past three years or so.

A good place to start is the Nuclear Free Local Authorities New Nuclear Monitor No.14 called: "*The Government's Facilitative Actions to Speed up Nuclear Developments*" written by the editor of NuClear News and published in November 2008. See

<http://www.nuclearpolicy.info/docs/nuclearmonitor/NNM14.pdf>

National Policy Statements (NPS).

The Nuclear National Policy Statement (NPS) is intended to establish the 'need' for new reactors, so the subsequent planning process will only deal with site specific issues. In 2008 the finalised Nuclear NPS was scheduled to be published at the beginning of 2010. In the event, the first six NPSs covering energy were not published for consultation until November 2009. The consultation closed on 22nd February 2010. (1)

Then on 15th July 2010 Charles Hendry, the Minister of State for Energy in the new coalition government, announced that there would be a second consultation on the National Policy Statements.

(2) This second consultation ran from 18 October 2010 to 24 January 2011. (3)

On 18th July 2011 the House of Commons debated and approved the six finalised National Policy Statements for Energy (4) and Secretary of State Chris Huhne designated them under the 2008 Planning Act the day after. (5)

On 26th August Greenpeace UK served legal papers on the government for unlawfully pressing ahead with plans for new nuclear reactors at eight sites in England and Wales through the Nuclear National Policy Statement without waiting to take into account relevant considerations arising from the Fukushima disaster. The group accused the Government of regarding Dr Mike Weightman's Interim Report into the lessons from Fukushima as a 'green light' for proceeding with the Nuclear National Policy Statement even though the report highlighted areas of serious concern requiring further investigation. (6) Since then the Government has been caught out working hand in glove with the nuclear industry to thwart this legal challenge. (7) They have even handed over documents lodged by Greenpeace with the High Court to the Nuclear Industry Association. (8)

Greenpeace sought a judicial review of the Government's decision to designate eight sites for new nuclear power stations in the Nuclear National Policy Statement before learning the lessons from the Fukushima nuclear disaster. On 12 December 2011, Greenpeace was informed that its application had been refused. In his ruling, Mr Justice Ouseley gave an important clarification as to the authority of the IPC and the ONR to consider evidence on site and project specific issues in their assessment of applications for planning permission or licensing of nuclear sites. This point was also made by the Secretary of State in his response to the Greenpeace application.

Mr Justice Ouseley explained that his reasons for refusing permission included that:

"The claim does not in reality recognise the role of the ONR and site licensing in dealing with flood protection, off-site supplies and communications. The potential for the 8 sites to be protected against flooding does not prevent a later decision by the ONR or by IPC on its advice that any one cannot be protected, nor does it prevent a decision by IPC that the as yet undefined measures have planning implications which tell against a site".

In effect, Mr Justice Ouseley clarified that the Nuclear NPS does not provide the final word on, nor does it bind the subsequent decisions of the ONR and IPC, on the site and project specific issues, including (a) flood risks, (b) off-site electrical supplies, and (c) on-site emergency controls. For instance, the Nuclear NPS merely sets out that the eight sites have the *potential* to be protected from flooding, but it is for the IPC and the ONR to consider whether the proposal before them would provide adequate protection, with regard to the characteristics and challenges of the location in question.

This was also the position taken by the Secretary of State in the Government's Summary Grounds for opposing a judicial review:

"...each of the matters referred to at Grounds 1(a)-(c) (i.e. safety of a site from risk of flooding; security of off-site electricity supply; and the adequacy of on-site emergency controls) are matters that would be considered by the ONR when deciding whether or not to grant the consents/licence necessary to build and operate a nuclear power station".

Flood risk; off-site electricity supplies; on-site emergency controls and off-site communications are *"matters to be the subject of project specific consideration by the ONR and other regulators"* and *"they concern site specific matters which fall properly to be considered at the stage that an individual application is determined"*.

The Secretary of State has accepted that these issues are to be considered, in particular, by the ONR at the stage of considering an application for a Nuclear Site Licence under the Nuclear Installations Act

1965. The Judge also referred to consideration of a planning application by the IPC and this is mentioned by the Secretary of State in the Summary Grounds.

It is clear therefore that the IPC, in its consideration of an application for planning permission, or the ONR, in its consideration of an application for a Nuclear Site License, must give proper consideration to a wide range of site and project specific matters, including flood risk, off-site electricity supplies, on-site emergency controls and off-site communications. Greenpeace UK will be bringing the implications and lessons from the disaster at Fukushima to bear on each of the planning and licensing processes.

- (1) New Nuclear Monitor No.17 December 2009. "Overview for NFLA members on the National Policy Statement Consultation and the National Nuclear Policy Statement (NPS)."
<http://www.nuclearpolicy.info/docs/nuclearmonitor/NewNuclearMonitorNo17.pdf>
New Nuclear Monitor No.19 February 2010 Response of the Nuclear Free Local Authorities to the National Nuclear Policy Statement Consultation.
http://www.nuclearpolicy.info/docs/nuclearmonitor/NFLA_New_Nuclear_Monitor_No19.pdf
The original November 2009 consultation documents can be found here:
http://webarchive.nationalarchives.gov.uk/20110302182042/https://www.energynpsconsultation.decc.gov.uk/home/previous_consultation/archived_documents
- (2) DECC Press Release 15th July 2010
http://www.decc.gov.uk/en/content/cms/news/pn10_083/pn10_083.aspx
- (3) The Revised Consultation Documents can be found here:
<http://webarchive.nationalarchives.gov.uk/20110302182042/https://www.energynpsconsultation.decc.gov.uk/home>
- (4) http://www.decc.gov.uk/en/content/cms/meeting_energy/consents_planning/nps_en_infra/nps_en_infra.aspx
- (5) http://www.decc.gov.uk/en/content/cms/meeting_energy/nuclear/new/siting/siting.aspx
- (6) Greenpeace Press Release 26th August 2011 <http://www.greenpeace.org.uk/media/press-releases/greenpeace-takes-government-court-over-nuclear-power-expansion-20110826>
- (7) Greenpeace Blog 6th December 2011 http://www.greenpeace.org.uk/blog/nuclear/government-gave-nuclear-industry-association-greenpeace-legal-papers-20111206?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+greenpeace%2Fuk+%28Greenpeace+UK+Blog%29
- (8) Guardian 5th December 2011 <http://www.guardian.co.uk/environment/2011/dec/05/uk-government-intelligence-nuclear-industry>

Generic Design Assessment (GDA).

In 2008 the GDA was expected to be completed around spring 2011, when the two regulators – the Office for Nuclear Regulation (ONR) and the Environment Agency (EA) would issue statements about the acceptability of the designs. (1)

By August 2010 it started to become clear that the ONR (formerly Nuclear Installations Inspectorate) might only be able to issue "interim" approvals for the Areva EPR and Westinghouse AP1000 reactor designs at the end of the generic design assessment (GDA) in June 2011. Construction could only occur after any outstanding "GDA issues" had been resolved. (2) This was confirmed in the final quarterly report of 2010. (3)

On 14th December 2011 the Regulators granted interim Design Acceptance Confirmations (iDACs) and interim Statements of Design Acceptability (iSoDAs) for the UK EPR and the AP1000 reactor designs. The Regulators also confirmed that they are satisfied with how EDF and Westinghouse plan to resolve the GDA issues identified during the process. (4)

The regulators also published on 14th December reports for each design summarising the basis of their decision, together with their technical assessment reports as well as documents explaining how the

designers plan to resolve issues identified in a report written by the UK's chief inspector of nuclear installations, Mike Weightman, on the Fukushima accident in Japan. Any prospective operator of a new reactor also needs to apply for and be granted a nuclear site license by ONR and environmental permits from the EA. It would also need to complete a process of preparing safety reports to support ONR's consideration as to whether to grant so-called "consent" to start installation, as well as receive other permissions from bodies including the Infrastructure Planning Commission. (5)

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 for the AP1000 pending customer input to finalizing it. (6)

The ONR's interim approval for the UK EPR came with a long list of caveats – 31 so-called 'GDA Issues'. (For key highlights see i-Nuclear below) Moreover, portions of the UK EPR design were, by agreement, outside the scope of the GDA review altogether. (7)

Mike Tynan, vice-president of Westinghouse UK, said the decision of the nuclear regulatory bodies to give interim approval to the AP1000 reactor design meant it would be able to step up talks with Horizon Nuclear Power about the AP1000 being chosen as the reactor to be built on sites at Oldbury and Wylfa. Mr Tynan said: "...although there remain a number of pieces of work to complete, the remaining activity does not pose a substantial risk to final approvals being granted. Some of the additional work required to go from interim to final approval status has already been carried out, some is currently in progress, and we will embark on the remainder once we have been selected as the preferred reactor design by a UK utility customer." He expects to hear which technology choice Horizon had made early in 2012. (8) A decision on the reactor-type to be used by NuGeneration Ltd, a consortium of GDF Suez and Iberdrola, is further down the road.

Westinghouse's iDAC for its UK AP1000 contained 51 GDA Issues. (For highlights see i-Nuclear below) (9)

- (1) HSE Press Release 18th March 2008 <http://www.hse.gov.uk/press/2008/e08019.htm> (Applications from reactor vendors were invited in May 2007 <http://www.forbes.com/feeds/afx/2007/07/05/afx3886476.html>)
- (2) Platts 25th August 2010 <http://www.platts.com/RSSFeedDetailedNews/RSSFeed/HeadlineNews/Nuclear/8909086>
- (3) Generic Design Assessment Progress Report 1st Oct to 31st Dec 2010 <http://www.hse.gov.uk/newreactors/reports/gda-q4-10.pdf>
- (4) http://www.decc.gov.uk/en/content/cms/meeting_energy/nuclear/new/generic/generic.aspx
- (5) Platts 14th December 2011 <http://www.platts.com/RSSFeedDetailedNews/RSSFeed/ElectricPower/8697810>
- (6) World Nuclear Association 3rd Aug 2011 <http://www.world-nuclear.org/info/inf84.html>
- (7) i-Nuclear.com 15th Dec 2011 <http://www.i-nuclear.com/2011/12/15/work-remains-on-uk-epr-despite-progress/>
- (8) Lancashire Evening Post 15th Dec 2011 http://www.lep.co.uk/news/lep-business/nuclear_future_is_a_step_closer_1_4060811
- (9) I-Nuclear 16th December 2011 <http://www.i-nuclear.com/2011/12/16/i-dac-in-hand-w-confident-on-new-reactor-order/>

Justification

The Justification Process is required under European Union regulations. Companies hoping to build a nuclear facility must show the benefits outweigh the potential health risks. In March 2008 the Government issued Guidance and invited nuclear companies to put forward new reactor designs by June for a justification decision. (1) The process was expected to be complete by mid-2009. (2)

On 17 December 2008 the Government published a public consultation on an application from the Nuclear Industry Association (NIA) for Justification of a class or type of practice including four nuclear reactor designs. The consultation closed on 25 March 2009. (3)

A further consultation was then held between November 2009 and February 2010 on the Secretary of State's proposed decision. (4)

The Justification draft decision documents pointed out that the Government's Committee on the Medical Aspects of Radiation in the Environment (COMARE) was undertaking a further review of the incidence of childhood cancer around nuclear power stations, with particular reference to the KiKK study in Germany, but this wasn't expected to be published until after the consultation had closed. (5)

The Nuclear Free Local Authorities published a briefing on responding to the Justification consultation in December 2009. (6) NuClear News No.16 looked at some of the highlights from submissions to the consultation. (7) The Government appeared to adopt a strategy of denying or minimising the significance of studies showing increased leukaemias. Greenpeace said the Secretary of State had failed to properly conduct the balancing exercise required by the European Directive, and it failed to properly quantify the radiological health detriments and safety and security implications of the practices. Dr Ian Fairlie told *The Guardian*: "*In my view, the KiKK report is a showstopper for the government's plans for more nuclear power stations. It's impossible to justify killing children near nuclear power plants: there are many safer ways to generate electricity.*"

Simon Hughes MP, the Liberal Democrat spokesman for energy and climate change until the General Election, said in March 2010: —*It would be completely unacceptable for the government to rush through new nuclear in its last days in office without a public inquiry.* (8)

Despite a strong push for a public inquiry the Secretary of State, Chris Huhne, published his decisions as Justifying Authority on 18 October 2010, which agreed that two nuclear reactor designs, Westinghouse's AP1000 and Areva's EPR, would be Justified, that is, that their benefits outweigh any radiological health detriment they may cause. (9)

In March 2011 a community worker from Lancaster won legal aid to launch an unprecedented High Court action against Chris Huhne. Lawyers hoped the action could delay, or even stop, the nuclear programme. Rory Walker, who lives close to Heysham where new reactors are planned, is worried about having children who could suffer an increased risk of leukaemia. His court challenge was backed by radiation experts and was being pursued by one of Britain's largest law firms, Irwin Mitchell. (10) On 12th May 2011 Rory Walker was in the Leeds Crown Court for a procedural hearing to decide whether the case should go to Judicial Review. Unfortunately the Judge rejected the arguments that Chris Huhne had not met his obligations in Law when 'justifying' new reactor types. (11)

- (1) The Justification of Practices involving Ionising Radiation Regulations 2004: Guidance for applications relating to new nuclear power, BERR, March 2008
<http://webarchive.nationalarchives.gov.uk/+/http://www.berr.gov.uk/files/file45384.pdf>
- (2) Reuters 31st March 2008 <http://uk.reuters.com/article/2008/03/31/uk-britain-nuclear-justification-idUKL314396220080331?rpc=401&feedType=R>
- (3) DECC website accessed 5th Jan 2012
<http://www.decc.gov.uk/en/content/cms/consultations/nuclear/nuclear.aspx>
- (4) DECC website accessed 5th Jan 2012
http://www.decc.gov.uk/en/content/cms/consultations/reg_just_cons/reg_just_cons.aspx
- (5) See "Don't live near a nuclear station if you plan to get pregnant" NuClear News No.11
<http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo11.pdf>
- (6) See <http://www.nuclearpolicy.info/docs/nuclearmonitor/NewNuclearMonitorNo18.pdf>
- (7) <http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo16.pdf>

- (8) Utility Week 11th March 2010 <http://www.utilityweek.co.uk/news/uk/electricity/politicians-and-academics-call.php>
- (9) http://www.decc.gov.uk/en/content/cms/meeting_energy/nuclear/new/reg_just/reg_just.aspx
- (10) See NuClear News No.28 <http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo28.pdf>
- (11) <http://www.heysham-anti-nuclear-alliance.org/>

Waste and Decommissioning Financing Arrangements

The Government legislated in the Energy Act 2008 supposedly to ensure that operators of new reactors will have secure financing arrangements in place to meet “*the full costs of decommissioning and their full share of waste management and disposal costs*”. Before construction begins, an operator of a new nuclear power station will have to submit a Funded Decommissioning Programme (FDP) for approval by the Secretary of State. The independent Nuclear Liabilities Financing Assurance Board was established to provide impartial scrutiny and advice on the suitability of FDPs. (1)

A consultation on a draft Funded Decommissioning Programme Guidance was launched in February 2008, with a Government response published in September 2008. (2) The Guidance was then revised and consulted on again almost three years later! The Government then published its finalised Funded Decommissioning Programme Guidance for New Nuclear Power Stations on 8th December 2011. (3) The Government says this new Guidance will enable new nuclear operators to come forward with clear plans to deal with decommissioning and radioactive waste management for approval by the Secretary of State. (4)

One of the main bones of contention with regard to the FDP was that although the draft Guidance listed a series of Guidance Factors to be considered before the Secretary of State can approve or agree to modifications, the list does not include any mention of public consultation or parliamentary oversight. In its response the Government says the Guidance sets out that the Secretary of State would expect the Operator to publish as much of the FDP as possible except for material of a sensitive nature. The Secretary of State also expects Annual Reports and Quinquennial Reports to be published by the Operator taking into account, as appropriate, commercial confidentiality and security considerations. However the FDP is expected to be a complex document with substantial technical and legal content. The Government does not consider that it would be an appropriate document on which to seek views through a consultation. And it does not consider that it would be appropriate to seek views on proposed Modifications in a public consultation. (5)

Alongside the approval of an operator’s FDP, the Government will expect to enter into a contract with the operator regarding the terms on which the Government will take title to and liability for the operator’s higher activity radioactive wastes. The Government expects to dispose of spent fuel and intermediate level waste from new nuclear power stations in the same Geological Disposal Facility that will be constructed for the disposal of legacy waste. In particular this contract will need to set out how the price that will be charged for this waste transfer will be determined.

On 8th Dec 2011 the Government confirmed how it will calculate the price operators will pay for the disposal of nuclear waste in a geological disposal facility. (6) Again the Government consulted on this twice, firstly between 25th March and 18th June 2010. (7) Then it consulted on an updated Waste Transfer Pricing Methodology between 7th October 2010 and 8th March 2011. (8)

Originally the Labour government had planned to charge the industry a high risk premium as part of a fixed, disposal levy tied to the amount of nuclear waste it produced, and had told the industry that responsibility for the waste should be transferred to the state only once the waste had been disposed of, which couldn’t happen before 2130 at the earliest. Both proposals were deeply unpopular with the industry. In March 2010, the Labour government published proposals that made significant concessions on both issues.

The Government continues to insist that taking title to radioactive waste, including spent fuel, for a fixed price is not a subsidy to new reactors, provided that the price properly reflects any financial risks or liabilities assumed by the state. For a full discussion of the risks to the taxpayer of the methodology chosen by the Government for costing the transfer of waste see NuClear News No.27. (9)

- (1) http://www.decc.gov.uk/en/content/cms/meeting_energy/nuclear/new/waste_costs/waste_costs.aspx
- (2) <http://webarchive.nationalarchives.gov.uk/+http://www.berr.gov.uk/consultations/page44784.html>
- (3) <http://www.decc.gov.uk/assets/decc/Consultations/fdp-guidance-new-nuclear/3797-guidance-funded-decommissioning-programme-consult.pdf>
- (4) DECC Press Release 8th Dec 2011 http://www.decc.gov.uk/en/content/cms/news/pn11_108/pn11_108.aspx
- (5) The Government Response to the Consultation on Revised Funded Decommissioning Programme Guidance for new nuclear power stations, DECC 2011 <http://www.decc.gov.uk/assets/decc/Consultations/fdp-guidance-new-nuclear/3796-government-response-funded-decommissioning-progra.pdf>
- (6) Waste Transfer Pricing Methodology for the Disposal of Higher Activity Waste from new nuclear power stations, DECC, December 2011 <http://www.decc.gov.uk/assets/decc/consultations/nuclear-waste-transfer-pricing/3798-waste-transfer-pricing-methodology.pdf>
- (7) See http://www.decc.gov.uk/en/content/cms/consultations/nuc_waste_cost/nuc_waste_cost.aspx
- (8) See http://www.decc.gov.uk/en/content/cms/consultations/waste_trans/waste_trans.aspx
- (9) <http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo27.pdf>

Electricity Market Reform

In 2008 the Government simply said it was working to strengthen the EU Emissions Trading Scheme so that investors have confidence in a meaningful, long-term carbon price. The idea of a carbon floor price first seemed to emerge around about August 2009 when the industry finally admitted that it wouldn't be able to afford to build new reactors without some form of subsidy. (1) Initially the Government denied it had plans for a Carbon Floor Price. But by October 2009 *The Guardian* reported that:

"The government believes that only by artificially increasing the cost of electricity generated by coal and gas stations through an additional carbon levy on household bills can nuclear become more competitive and encourage new reactors to be built". (2)

Failure at Copenhagen in December 2009 and the falling price of carbon in Europe led to further lobbying for a carbon floor price from the industry. (3) The incoming coalition Government agreed to implement a floor price for carbon in the European emissions trading scheme: Dan Box on *The Ecologist* website said "21st century nuclear power needs a 21st century subsidy... no blank cheques this time - just an apparently green tweak to the emissions trading system, and voila!" (4)

By August 2010 even EDF, which will benefit from a windfall at its existing reactors when the carbon floor price is introduced, agreed that a carbon floor price would not be enough to get new reactors built. (5) Capacity Payments and Contracts for Difference were first raised by Ministers as possible additional measures in November 2010. (6) The government unveiled its plans for energy market reforms on 16th December 2010. (7) (8)

On 12th July 2011 the Government published its White Paper on Electricity Market Reform. (9) This marked the first stage of the reform process. The Government intends to legislate for the key elements of this package in the second session of this Parliament, which starts in May 2012, and for legislation to reach the statute book by the end of the next session (by spring 2013) so the first low-carbon projects can be supported under its provisions around 2014. The Government will put in place effective transitional arrangements to ensure there is no hiatus in investment while the new system is established. The Carbon Floor Price is expected to be introduced in April 2013.

Hergen Haye, the head of new nuclear and strategy in the Department of Energy and Climate Change (DECC) claims introducing long-term electricity purchase contracts to persuade firms to build nuclear power plants in the UK are not illegal state aid under European Union rules: "*We believe this is not a state aid project*", he said. "*We believe it is correcting the imbalance with gas.*" Contracts, to reduce risks for investors, are intended to help the utility EDF to finalise funding for the proposed Hinkley Point C nuclear plant by the end of 2012. Not everyone agrees with Haye. Industry figures at the latest annual European Nuclear Assembly organised by Foratom, the European sector's trade association, claimed that the idea could easily fall foul of the Commission's strong opposition to state aid. (10)

Haye said that while trying to convince EC authorities that its energy market reform proposal would not represent illegal state aid, the UK is also asking other countries considering or planning new nuclear plants how they are approaching the state aid issue. "*I am a very strong advocate of a much stronger alliance with those other countries that want to build new nuclear,*" Haye said. "*We will face a lot of obstacles*" and should seek common solutions, he said, calling that the UK's "Plan B" if the commission should oppose the contract-for-difference plan or other national plans to support nuclear construction. He also said the UK "*can't wait*" for the outcome of the public consultation on the energy market reform and the discussions with the EC, which will take another two years, because EDF is targeting an investment decision on Hinkley Point C in 2013. The government will thus do an interim negotiation with EDF on the conditions of its investment "*in line with the [contract for difference] proposal,*" he said. (11)

- (1) Telegraph 18th August 2009 <http://www.telegraph.co.uk/news/politics/6044394/Consumers-to-pay-for-new-nuclear-power-plants.html>
- (2) Guardian 19th Oct 2011 <http://www.guardian.co.uk/environment/2009/oct/19/nuclear-tax-on-power-bills>
- (3) Times 23rd Dec 2009 <http://www.thetimes.co.uk/tto/business/industries/utilities/article2198188.ece>
- (4) Ecologist 24th May 2010
http://www.theecologist.org/blogs_and_comments/commentators/Dan_Box/491424/the_government_has_found_a_backhanded_way_to_subsidise_nuclear_power.html
- (5) Telegraph 14th August 2010
<http://www.telegraph.co.uk/finance/newsbysector/energy/7945867/Britain-is-struggling-to-power-the-nuclear-revolution.html>
- (6) Telegraph 5th November 2010
<http://www.telegraph.co.uk/finance/newsbysector/energy/8111274/More-incentives-needed-for-nuclear-says-Energy-Minister-Charles-Hendry.html>
- (7) HM Treasury 16th Dec 2010 http://www.hm-treasury.gov.uk/consult_carbon_price_support.htm
- (8) DECC consultation on Electricity Market Reform, 16th Dec 2010
<http://www.decc.gov.uk/en/content/cms/consultations/emr/emr.aspx>
- (9) http://www.decc.gov.uk/en/content/cms/legislation/white_papers/emr_wp_2011/emr_wp_2011.aspx
- (10) Utility Week 7th Dec 2011
http://www.utilityweek.co.uk/news/news_story.asp?id=196254&title=Decc+confident+nuclear+contracts+are+not+illegal+under+state+aid+rules
- (11) Nucleonics Week 8th Dec 2011

Nuclear Liability

Not quite a "facilitative action", but certainly a "subsidy" - between 24th January 2011 and 28th April 2011 the Department of Energy and Climate Change held a consultation on proposed changes by the UK Government to the Paris-Brussels Convention on nuclear third party liability. (1) The proposal included a significant and positive increase in the "cap" on nuclear companies to £1 billion in the event of an accident at a nuclear reactor. But with the estimate of the total amount of compensation required in Japan after the Fukushima disaster now at least 4 trillion yen (£29.2 billion) (2) and up to £80bn (3) that still leaves the taxpayer here shouldering a heavy potential risk. In fact the latest estimates for the cost of the clean-up after the Fukushima disaster is up to \$250bn (4)

In its response to the consultation the Nuclear Free Local Authorities argued that pushing ahead with these proposed changes to the nuclear liability laws, without first considering the full financial impact of an accident is not acceptable. It will leave the taxpayer to pick up potentially huge but unknown additional costs. It is vital to stop now and reassess the proposals on the level of insurance cover, the legislative arrangements, and the financial security of nuclear companies and whether these can be deemed 'fit for purpose' for the coming decades. (5) The proposals as they stand at the moment represent a subsidy to the nuclear industry in general and new reactors in particular. There should be no cap on the industry's liability. Setting a £1bn cap at a time when there is an ongoing incident likely to cost many times that figure is illogical.

One study estimates that insurance premiums for nuclear power, if operators were forced to pay the full cost, could add between €0.14/kWh and €2.36/kWh to the cost of a unit of nuclear electricity. (6)

A Government response to the consultation is awaited. This is expected to come out around the end of January. Then the Order will be laid before Parliament around May.

- (1) See http://www.decc.gov.uk/en/content/cms/consultations/paris_brussels/paris_brussels.aspx
- (2) Asahi 4th May 2011 <http://www.asahi.com/english/TKY201105030093.html>
- (3) Guardian, quoting from the Yomuri Shimbun newspaper:
<http://www.guardian.co.uk/world/2011/apr/13/japan-nuclear-plant-evacuees-compensation>
- (4) News on Japan 1st June 2012 <http://newsonjapan.com/html/newsdesk/article/89987.php>
- (5) NFLA 20th April 2011
http://www.nuclearpolicy.info/docs/consultations/NFLA_P_B_Liability_Response.pdf
- (6) Schultz, S. *Researchers calculate horrendous liability costs for nuclear power*, Der Spiegel, 11th May 2011 <http://www.spiegel.de/wirtschaft/soziales/0,1518,761826,00.html>

2. Fukushima Update

The Japanese Government Panel investigating the causes of the Fukushima nuclear disaster produced its interim report on 26th December 2011. The Executive Summary is available in English, (1) but it is not clear whether the full interim report will ever be translated. The final report won't be available until summer 2012. (Perhaps this would have been a good time for UK Government to start making decisions on whether or not to allow new reactors to be built in the UK).

The Japanese government's response saw flawed organisation and communication, while the site was inadequately prepared and operators made mistakes. Japanese law requires the quick establishment of a local nuclear emergency headquarters in the vicinity of the affected site. For Fukushima this meant the assembly of key staff at a facility about five kilometres away, but two factors prevented this from working as expected: One was the devastation of the natural disasters that took out communications links while also preventing timely travel and the provision of food and water. The other was the lack of radioactivity filters at the building, which actually made it useless for a serious emergency of the kind that developed at Fukushima Daiichi. (2)

Nuclear Engineering consultant John Large says the Investigation Committee is convinced of the need for a paradigm shift in the basic principles of disaster prevention. Earlier he told the European Economic & Social Committee on 12th December (3) that this applies globally: (a) Much the same standards and protocols of operation exist at Tepco as elsewhere in the world; (b) LWRs all share unstable zircaloy fuel systems and similar containments; (c) the same probabilistic approach to defining and determining risk and hazard exists worldwide under auspices of the IAEA.

Large says nuclear safety regulations should not have relied so heavily on probability to determine the likely frequency and severity of threats to nuclear plants. Yet the derivation and make-up of the European Commission's specification for the *Stress Tests* continues with this same remorseless logic of the probabilistic approach.

Probabilistic Risk Assessment (PRA) allows operators to disqualify some ‘incredible’ events e.g. ONR has ruled out airplane crashes solely on the basis of low probability. Yet with Fukushima we saw that low probability events can occur. (4)

John Large is giving a talk at the Institution of Mechanical Engineers on 9th February on the implications of Fukushima for the UK programme <http://nearyou.imeche.org/eventdetail/0/6150>

The Japanese government and officials from TEPCO have declared that the reactor has reached cold shutdown status. Junichi Sato, Executive Director of Greenpeace Japan says:

“By triumphantly declaring a cold shutdown, the Japanese authorities are clearly anxious to give the impression that the crisis has come to an end, which is clearly not the case. Instead of creating a PR smokescreen to deflect attention away from the ongoing failure to help people living with the consequences of the disaster, the government’s priority should be to ensure public safety and begin the shutdown of all nuclear reactors in Japan. TEPCO has not achieved true cold shutdown - so neither the company nor the government should be claiming the job is almost done. Radiation is still escaping from the site, and the exact status of the tonnes of molten fuel remains unknown. Tens of thousands of tonnes of highly contaminated water remain in the reactor and turbine buildings, with some leaking into the ocean again last week. The ongoing radiological threat posed by the Fukushima nuclear disaster remains enormous.” (5)

The announcement was intended to reassure the country that progress had been made since March 11. "Cold shutdown" means that the nuclear reactor's coolant system is at normal pressure and the core is colder than 100°C, making it impossible for a chain reaction to take place. But officials can't measure the temperature of melted fuel in damaged reactors as accurately as they can usually, meaning that the government's claims can't be precisely checked. (6) At Reactor No. 1 they believe most of the molten fuel has fallen from the pressure vessel to the bottom of the containment vessel where there is no thermometer. The amount of water has not been measured accurately with a water gauge and has only been guessed at. Tepco has installed systems to test for new “criticalities” – i.e. new nuclear reactions – in Reactors No. 1 and 2, but hasn't done so in No. 3 – so no one can even tell if there are ongoing reactions in No. 3. Mainichi Daily noted:

“We can only deduce that the “conclusion” of the crisis, rather than being based on scientific evidence, comes from placing priority on a political decision to create the impression that the crisis has been brought under control quickly.” (7)

- (1) <http://icanps.go.jp/eng/111226ExecutiveSummary.pdf>
- (2) World Nuclear News 30th December 2011 http://www.world-nuclear-news.org/RS_Fault_lines_in_Japanese_nuclear_regime_3012111.html
- (3) See <http://www.largeassociates.com/3211%20EESC/R3211-Presentation.pdf>
- (4) Also see <http://www.largeassociates.com/3195%20Fukushima/R3200-Summary.pdf>
- (5) Greenpeace International Press Release 16th December 2012 <http://www.greenpeace.org/international/en/press/releases/Fukushima-Nuclear-shutdown-needed---not-cold-shutdown-PR-smokescreen--/>
- (6) Morning Star 16th Dec 2011 <http://www.morningstaronline.co.uk/index.php/news/content/view/full/113259>
- (7) Infowars 24th Dec 2011 <http://www.infowars.com/announcement-of-%e2%80%9ccold-shutdown-%e2%80%9d-of-fukushima-reactors-is-based-on-a-political-decision-not-science/>

3. NDA Business Plan 2012-15

The Nuclear Decommissioning Authority (NDA) has published a draft Business Plan 2012 – 2015 for consultation. The consultation runs until 3 February 2012. (1) It expects commercial income to drop by 17.3% in fiscal year 2012-13 over the current year and taxpayers will pick up the tab through an

increased government contribution. The NDA is projecting a £3 billion spending plan annually for the next four years, of which £2.2 billion (up from £2.0 billion this year) is funded directly by the government and the remainder comes from commercial income. The closure of the Sellafield MOX Plant (SMP) in August following the loss of spent fuel reprocessing business from Japan will represent a loss of some £78 million year-on-year in MOX contracts, according to the draft Business Plan. (2)

This means the taxpayer stumping up almost £250m extra to bail out the NDA in the next financial year. The setback will give more ammunition to environmentalists and other critics who argue that the wider nuclear industry is infamous for cost overruns and calls on public funds. NDA income for 2012-13 is shown dropping from £867m to £717m, while expenditure is expected to rise from £2.88bn to £2.96bn, leaving the government needing to increase its total grant to the organisation, which oversees the dismantling of the UK's atomic legacy. (3)

Meanwhile the cost of the NDA's biggest project - Evaporator D - seen as crucial to the future running of Sellafield, has been hit by nuclear trademark cost escalations and is now grossly over budget. The Project was originally priced at £90m and scheduled to come into service in 2010/11. When the contract was awarded to Costain in 2009, the cost had escalated to £297m – with a four-year delay flagged-up. By 2010, costs had jumped to some £400m and, as New Year 2012 unfolds, a further £80m-£100m is understood to be required. (4)

- (1) NDA 12th Dec 2011 <http://www.nda.gov.uk/news/draft-business-plan12-15.cfm>
- (2) i-Nuclear.com 21st Dec 2011 <http://www.i-nuclear.com/2011/12/21/nda-expects-17-3-income-drop-next-year/>
- (3) Guardian 25th Dec 2011 <http://www.guardian.co.uk/business/2011/dec/25/energy-industry-nuclear-waste>
- (4) CORE Briefing 4th Jan 2012 <http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=299>

4. Energy Prices

The Committee on Climate Change has waded into the debate about whether renewable will push up energy costs. It says claims that the costs of wind farms and other low-carbon technology will lead to sharp rises in fuel bills are wrong. The Committee says increases in bills over the past few years have been largely due to higher wholesale gas costs. Members said their "best estimate" was that green policies would add £110 to bills per household in 2020 with the combined gas and electricity bill for typical households going up from £1,060 in 2010 to £1,250 in 2020. But further energy efficiency measures - such as loft and wall cavity insulation - could see the projected 2020 bill fall to £1,085 per household, it said. CCC chief executive David Kennedy said the cost of investment was "significantly" outweighed by the benefits - including a reduced reliance on imported fossil fuels. (1)

The cost of switching the UK to low carbon energy would be no dearer than doing nothing according to the government adviser on climate change Professor David MacKay. However, the cost of the "do nothing" option does not include the damage to the economy expected as a result of climate change, and according to the landmark Stern review: "*This is the equivalent of up to £6,500 per person per year on average, on top of the cost of the energy system.*" (2)

According to David MacKay's model the cheapest option for switching to green energy would increase the estimated cost of energy to £4,598 per person per year by 2050. Under this plan, just over 40% of energy would come from wind, solar and renewable power, a third would come from nuclear plants and a quarter from gas stations. The estimates suggest that failing to replace fossil fuel plants with greener energy would be even more costly. Continuing to rely on coal and gas would cost about £4,682 a year per person, according to the forecasts. The most expensive scenario, working out at £5,181 per person a year, would rely on a far higher use of nuclear power than any of the other

options. Household energy bills are already at record levels, with the average domestic fuel cost estimated to be about £1,175 for 2011, compared with £1,075 for the same level of energy consumption last year. The Government estimates that household bills will probably increase by around £200 a year over the next decade, with about half of this rise caused by Britain's climate change policies. (3)

None of this has stopped the attacks on renewables. Christopher Booker ridiculed David MacKay's "2050 Pathway Calculator" in the *Daily Telegraph*. He called it "a completely dotty and misleading 220-page report". "Everyone knows", says Booker "renewable sources such as wind farms are far more expensive than conventional ones, hence their need for massive subsidies." He complains that the model fails to allow for cheap shale gas. He concludes:

"Messrs Cameron, Clegg, Huhne, Mackay, and their subordinates, blithely saw away at their violins while the raft of our national energy policy is carried away into the sunset. For anyone wondering how we are going to keep Britain's lights on and our economy running, make-believe on such a scale is truly terrifying." (4)

But the "right" doesn't seem to quite agree whether lack of effort on shale gas or nuclear power is the real problem. Paul Goodman writing for the Conservative Home blog says the lesson Booker draws is that the calculator is flawed. The lesson I draw is that according to the Government's own calculations it needs more nuclear as fast as possible. (5)

Soaring energy bills could plunge a third of households into fuel poverty by 2030 unless more nuclear power stations are built, according to a report from the Centre for Policy Studies as Britain's nuclear generating capacity will fall by 75 per cent over the next few years. Energy analyst Tony Lodge, the report's author, also argued that so-called "renewable" energy sources such as wind turbines were unlikely to be reliable. Any further delays in building nuclear power stations would mean they could not begin contributing to the electricity-generating system before 2025, he added, making Britain dependent on increasingly costly gas for more than 80 per cent of its electricity generation by then. (6)

Mark Lynas wrote an interesting riposte to Christopher Booker in *The Guardian*. (7) He points out Friends of the Earth have created their own proposed 2050 pathway, as has Lynas. Theirs includes lots of wave, wind and energy efficiency, whereas Lynas's – which he considers more realistic – has lots of nuclear, less efficiency and wave power but plenty of offshore wind.

- (1) BBC 15th Dec 2011 <http://www.bbc.co.uk/news/uk-16191900>
Guardian 15th Dec 2011 <http://www.guardian.co.uk/environment/2011/dec/15/clean-energy-bills>
- (2) Guardian 28th Dec 2011 <http://www.guardian.co.uk/environment/2011/dec/28/uk-switch-low-carbon-energy>
- (3) Telegraph 29th Dec 2011 <http://www.telegraph.co.uk/earth/greenpolitics/8980982/Greener-energy-will-cost-4600-each-a-year.html>
- (4) Telegraph 7th Jan 2012
<http://www.telegraph.co.uk/comment/columnists/christopherbooker/9000132/Chris-Huhne-is-piling-on-the-make-believe.html>
- (5) Conservative Home 8th Jan 2012 <http://conservativehome.blogs.com/thetorydiary/2012/01/by-paul-goodmanfollow-paul-on-twitter-christopher-booker-today-ridicules-the-governments-2050-pathway-calculator-an-intera.html>
- (6) Express 3rd Jan 2012 <http://www.express.co.uk/posts/view/293218/Nuclear-key-to-fuel-bills>
- (7) Guardian 10th Jan 2012 <http://www.guardian.co.uk/environment/blog/2012/jan/10/christopher-booker-decc-future-energy>

5. Will the Green Deal Deliver?

The Government says its “Green Deal” is a key element of its policy to improve household energy efficiency. It says it is “committed to putting in place the necessary steps to ensure that the benefits of the Green Deal can reach every household, even the poorest and those in the hardest to treat homes”.

(1) But the jury is still out on whether the Green Deal will deliver the promised energy efficiency savings to households on low incomes. Chris Huhne says:

“There are certainly costs to replacing our ageing energy infrastructure with modern, clean power stations, and we take very seriously any impact of our policies on what consumers and businesses pay.”

The average household energy bill without the Government’s climate and energy policies would be expected to be £1,379. But with the Government’s policies this should be reduced by £94. The Green Deal is expected to be responsible for 35% (£33) of this reduction. (2) So it is crucial for the Government that it is a success.

The Green Deal aims to make 14 million households more energy-efficient by 2020. But the entire scheme rests on public buy-in. If people can't be persuaded it's a good idea, or respond to their newly lowered household bills by cranking up the thermostat, the scheme will lie in tatters. The government, desperate to avoid looking like they are interfering in people's lives, has gambled on 'nudging' people into taking up the deal, despite widespread concerns that it will take a greater effort to get people to clear out their loft and let the home insulation teams in. (3)

After the fiasco of the sudden change to solar feed-in-tariffs, there are questions over consumer and investor trust in green schemes. The Government will be hoping it can counteract this through the extra £200m of funding it announced in November to encourage early take-up of the Green Deal. A consultation on the details of the deal is underway, with secondary legislation due in the spring and the first Green Deal installations in October. (4)

Chris Huhne is banking on the Green Deal to deliver huge efficiency savings and cut bills to cushion households from the rising costs of energy over the next decade. (5) But the government's Committee on Climate Change (CCC) warns the programme will only reach 2-3m households – not the 14m required. Currently, energy companies have a legal obligation to enable their customers to improve their energy efficiency. *“The [green deal] proposal is to take away that obligation and say 'let's leave it to the market',”* said David Kennedy, the CCC chief executive. *“There is going to be a complete collapse in the insulation market,”* said Andrew Warren, director of the Association for the Conservation of Energy, who described the CCC's intervention as *“unprecedented”*. *“We will see an 80% drop in the cavity walls being filled,”* he added.

David Kennedy told *The Guardian*: *“The paradox is that the government's own impact assessment suggests the policy will not deliver its objective. There is a difference between the rhetoric and their own assessment.”* The government's impact assessment forecasts that several factors will severely limit the take-up of the scheme, including the hassle of having builders in, the fear of cowboy contractors and being unaware of the scheme or the benefits to their homes and energy bills. There are 6m lofts in the UK that are poorly lagged, but the impact assessment suggests just 10% of this will be properly insulated by 2020 as a result of the green deal. Of the further 6.3m cavity walls yet to be insulated, just 1.7m are forecast to be treated under the plan. Andrew Warren says *“the daft thing is that at the same time [as delivering the green deal plan], the government has put out a national carbon budget plan that states with complete confidence that they will get all the lofts and cavity walls done - but there is no programme to do it”*.(6)

National Energy Action is worried that the impact of the programme will be to increase fuel poverty rather than decrease it as intended. Three quarters of the funding under the new programme — called

the “energy company obligation” — will go to more affluent families that use more energy because it is easier for energy companies to hit their carbon savings targets this way. The remainder of the expenditure — between £130 million and £770 million a year, according to government estimates — will go on insulation for fuel-poor families, much lower than existing funds to address this issue. (7) The worry is that because only a quarter of the £1.3bn a year ECO fund will be targeted at fuel poverty, with three quarters used to subsidise so-called hard-to-treat homes, in effect solid-wall insulation for those with older homes lacking cavity walls – wealthier consumers will be the ones who benefit whereas all consumers are contributing towards the ECO fund through their bills.

Meanwhile the Green Alliance says we need to shift focus from the supply of units of energy, which is what the energy market is designed to do at present, to investment in the infrastructure which allows people to use fewer units of energy, in a new report just published. (8)

- (1) Fuel Poverty: Government Response to the Committee’s 5th Report, Energy and Climate Change Committee, 19th October 2010
<http://www.publications.parliament.uk/pa/cm201011/cmselect/cmenergy/541/541.pdf>
- (2) http://www.decc.gov.uk/en/content/cms/infographics/household_bill/household_bill.aspx
- (3) Guardian 19th Dec 2011 <http://www.guardian.co.uk/sustainable-business/green-deal-carbon-emissions>
- (4) Telegraph 22nd Dec 2011 <http://www.telegraph.co.uk/finance/newsbysector/energy/8964702/Energy-sector-predictions-for-2012.html>
- (5) Times 21st Dec 2011 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3264571.ece>
- (6) Guardian 20th Dec 2011 <http://www.guardian.co.uk/environment/2011/dec/20/green-deal-fail>
- (7) Times 2nd Jan 2012
<http://www.thetimes.co.uk/tto/business/industries/naturalresources/article3273588.ece?lightbox=false>
- (8) Demanding Less: why we need a new politics of energy by Rebecca Wills and Nick Eyre, Green Alliance, December 2011 http://www.green-alliance.org.uk/uploadedFiles/Publications/reports/demanding_less_web_spreads.pdf

6. Hinkley Point C moves ahead

There are only a few days left to register to make submissions to the Infrastructure Planning Commission (IPC) regarding Hinkley C. Registration closes on 23rd January. Unless you register by then, you will have no voice in the IPC’s deliberations. (1) The Stop Hinkley Campaign has provided these notes: <http://www.stophinkley.org/EngRevu/ObjectJan2012.htm>

Meanwhile serious concerns have been raised about the effects of nuclear discharge on the South Wales coast if a planned new power station goes ahead. A consultation by the Environment Agency into proposals for a new nuclear power station at Hinkley Point, Somerset, has just ended. But environmentalists and anti-nuclear campaigners say they are concerned about what potential radioactive discharges could do to South Wales, just 15 miles across the channel. (2) They made their case as part of the public consultation on the scheme. Submissions by Nuclear Free Local Authorities (NFLA), CND Cymru, Friends of the Earth Cymru and the Stop Hinkley Campaign have raised concerns about planned radioactive marine discharges and aerial emissions from the proposed plant. They claim that independent research has concluded that “*there are major data gaps concerning radioactivity concentrations along the entirety of the Bristol Channel coast*”. (3)

- (1) IPC: <http://infrastructure.independent.gov.uk/projects/south-west/hinkley-point-c-new-nuclear-powerstation/>
- (2) Wales Online 17th Dec 2011 <http://www.walesonline.co.uk/news/wales-news/2011/12/17/hinkley-point-nuclear-plans-raise-concerns-over-effects-of-potential-discharge-on-wales-91466-29967870/>
- (3) NFLA Press Release 14th Dec 2011
http://www.nuclearpolicy.info/docs/news/NFLA_PR_Hinkley_Point_submission.pdf
NFLA Submission on Marine Discharges:
http://www.nuclearpolicy.info/docs/nuclearmonitor/NFLA_New_Nuclear_Monitor_No25.pdf

NFLA Submission on Aerial Discharges

http://www.nuclearpolicy.info/docs/nuclearmonitor/NFLA_New_Nuclear_Monitor_No26.pdf

7. Nuclear waste disposal in Cumbria = National nuclear dump for the Lake District

A consultation, which ends on 23rd March, is currently underway on whether or not to go forward with the next stage of siting a massive nuclear dump - near to or under the Lake District National Park in West Cumbria, either Copeland or Allerdale. (1) The dump will take not only all the UK's most radioactive 'legacy' wastes from past and present activities, but all such wastes from *future* activities. The decision will be made mid-late 2012.

The highly radioactive and intermediate level wastes

- The dump, officially called a 'geological disposal facility', will take intensely hot and highly radioactive spent fuel, high level waste (from reprocessing), possibly plutonium and intermediate nuclear waste from the UK's civil and military activities. There is no similar facility operating anywhere in the world and internationally problems are being experienced in different waste disposal programmes. (2)
- At present most of waste to be disposed of is at Sellafield - but much of this waste (in its original form) was created across the UK, not in Cumbria. Recently the Government has expressly stated it 'expects' all the wastes from new reactors to go into the dump. (3) Estimated to be smaller in volume than legacy wastes, the spent fuel and wastes from 10 new reactors, for example, would be *three times as radioactive* as all the wastes created over the past 50 years of nuclear operations. (4)
- Due to operations at Sellafield, Cumbria has effectively been the dumping ground for the UK's radioactive wastes for the past 60 years. It is now intended that the county will also be the dumping ground for nuclear wastes created over the next 50-100 years.

The dump

- It is estimated that between 631,000 cubic metres to 1,160,000 cubic metres of nuclear waste could go into the dump - equal to between 6-11 times the volume of the Albert Hall. (5)
- The wastes would be buried between a depth of 200-300m (height of the Eiffel Tower) down to 1,000m (height of Scafell Pike, England's highest mountain). (6)
- The footprint - the area covered underground - is estimated to range from 6 km² to 25km². The smallest size would be roughly three times the size of Cockermouth, with the largest area not much smaller than York. (7) New reactor wastes could have a significant role in the size of the footprint as the high levels of radioactivity (and heat generation) would require more spacing.

Geology - suitable or unsuitable areas?

- A report on the geology of Allerdale and Copeland has already deemed some areas unsuitable for the nuclear dump. However, the areas excluded for the dump are still considered as possibly suitable to host the above-ground part of the repository. Any area considered suitable for the dump could, however, get both the underground *and* above ground facilities.
- Leading geologists have condemned the idea of West Cumbria as an area appropriate for radioactive waste disposal because the geology and hydrogeology is totally unsuitable. (8) NIREX's proposal to dispose of nuclear waste in 1995 was rejected because the geology of the area proposed for the dump was unsuitable.

Above ground facilities/visual impact

- The project is expected to be on a scale similar to the Channel Tunnel. (9) This will result in huge spoil heaps, arranged in bunds. These could be clearly visible from some of the UK's most iconic mountains, such as Skiddaw or Scafell (depending on where the dump is sited). This kind of visual impact undermines the Lake District National Park's nomination to be made a World Heritage site in 2012.

- The above-ground facilities could include large service facilities similar to a mine site as well as a spent fuel encapsulation (packing) plant at the site. Such technology is not yet used in the UK. Further, if industry proposals go ahead, possibly thousands, if not tens of thousands of tonnes of highly radioactive spent fuel could be stored at the above ground facilities for many decades. The Government has not ruled out this option. The Nuclear Decommissioning Authority, which will be in charge of building the dump, has concluded the central storage option has many advantages over keeping wastes at new reactor sites. (10)
- British Energy has estimated the store for all the spent fuel store from Sizewell B is expected to be of the order of 50m wide by 110m long by 23 m. high. (11) Depending on the scale of any new reactor programme, several stores of the scale proposed at Sizewell might be needed to store spent fuel at the above-ground facilities.
- The above ground operations could be up to 10-20km away from the underground dump, potentially involving a very large area and numerous communities in the repository process.
- Current plans are for the dump to be open from 2040-2130 to take all legacy wastes. Disposing of new build wastes could add a further 60-100 years to this timeline -if everything happens according to current plans. (12) However, there are proposals to speed up this timetable. (13)

Unfortunately, lots of issues which are essential to the public's understanding of the totality of the nuclear waste disposal plans are not fully discussed in the consultation document. Information is being drip-fed to the public or left out of public debate altogether.

For example, this year the Government and companies wanting to build new reactors hope to conclude agreements which will include when new build wastes will be handed over to the Government. The public and Parliament will not have a say in these agreements. It is these agreements which could determine how much new build wastes are sent, and when, to the nuclear dump. There are also major financial incentives to the industry to push for central storage at the above ground facilities at the dump. (14) This matter is not discussed in the consultation document.

Politics and decision making

Three local authorities set up the Managing Radioactive Waste Safely (MRWS) process, based on a Government White Paper. (15) The councils: Cumbria County Council, Copeland Borough Council and Allerdale Borough Council are all in favour of new nuclear reactors. (16) These are the only councils in the UK to express an interest in 'hosting' this nuclear dump. The process is funded and overseen by the Office of Nuclear Development (in the Department of Energy and Climate Change), whose primary aim is to facilitate new nuclear reactors.

At the end of the consultation, responses will be considered by the member organisations of the MRWS Partnership (17) which will then offer their 'views' or 'opinions' to the three councils on which option to take. However, it is the three councils - which are the Decision Making Bodies - that will make the final decision on whether to go to the siting stage.

Member organisations, in particular the Lake District National Park Authority which has planning powers for the Park, can clearly influence the outcome.

Both underground disposal and above ground storage of highly radioactive wastes would pose major environmental, health, safety and security risks.

Little or no work has been done on the environmental or economic risks of this proposal, but there has been a lot of spin on the possible benefits. There could, however, be very real negative impacts e.g. environmentally sustainable businesses could be put off from moving into the area. House and land prices could also drop significantly. Communities above the access tunnels - as well as those at the dump site and near aboveground facilities - could also be badly affected. Rural industry - farming and

food producers - as well as the tourism trade could be hit massively by this proposal and it has been publicly acknowledged at even in the earliest stages 'blight' could start.

- (1) The consultation document can be found here:
http://www.westcumbriamrws.org.uk/documents/Full_Consultation_Document_-_West_Cumbria_MRWS_Partnership_November_2011.pdf
- (2) <http://www.greenpeace.org/eu-unit/en/Publications/2010/rock-solid-a-scientific-review/>
- (3) The Government's MRWS White Paper (June 2008) has said: '*it is technically possible and desirable*' from its point of view that a repository would take waste from new UK nuclear power stations. On 8th December 2011 however, the Government's paper on the 'waste transfer price' of nuclear waste from new reactors to the NDA stated:
"The Government expects to dispose of spent fuel and ILW from new nuclear power stations in the same GDF that will be constructed for the disposal of legacy waste". (emphasis added).
<http://www.decc.gov.uk/assets/decc/Consultations/nuclear-waste-transfer-pricing/3798-waste-transfer-pricing-methodology.pdf>
- (4) Committee on Radioactive Waste Management 2005: Radioactive Waste and Materials Inventory – July 2005 CoRWM Document No: 1279
- (5) For references see pages 84 and 17 consultation document
- (6) See page 16 of the consultation document.
- (7) Ibid
- (8) <http://davidsmythe.org/nuclear/Unsuitability%20of%20Cumbria%2012April2011%20plus%20figs.pdf>
- (9) See page 16 of the consultation document.
- (10) The report by the NDA was commissioned from the Nuclear Industry Association which represents all the companies wanting to build new reactors. <http://www.nda.gov.uk/documents/upload/Geological-Disposal-Feasibility-studies-exploring-options-for-spent-fuel-from-new-nuclear-power-stations-November-2010.pdf>
- (11) http://www.british-energy.com/documents/Sizewell_2009_feedback_report_+_QA.pdf Page 6
- (12) <http://data.energynpsconsultation.decc.gov.uk/documents/npss/EN-6.pdf> and
http://www.decc.gov.uk/assets/decc/Consultations/nuclearfixedunitprice/1_20100324145948_e_@@_ConsultationonFixedUnitPricemethodologyandupdatedcostestimates.pdf
The dates assume the last batch of spent fuel from any new reactor programme is 'discharged' from a reactor in 2090 and is stored for 60 years. However, the timescale for disposing of legacy wastes could increase the overall timeline for closure to 2230.
- (13) <http://www.i-nuclear.com/2012/01/10/uk-could-speed-up-nuclear-waste-disposal/>
- (14) In sending spent fuel to a central store the industry would hand over title and liability for the wastes to the taxpayer (via the Nuclear Decommissioning Authority) decades before disposal. Cost 'sharing' for storage and packaging of spent fuel will mean a subsidy for prior to disposal. which could run, at least, to tens of millions. This subsidy would be in addition to the massive subsidy already estimated for the separate disposal costs for new build wastes and spent fuel.
- (15) <http://mrws.decc.gov.uk/assets/decc/mrws/white-paper-final.pdf>
- (16) The 'hidden agenda' behind the council interests came to light following FOI requests when it was revealed they had planned (in January 2008, six months prior to the MRWS White Paper) to use the nuclear dump as a 'trump card' to leverage new reactors in West Cumbria. See para 22, page 3 this link <http://www.greenpeace.org.uk/document/building-case-nuclear-new-build-sellafield>
- (17) <http://mrws.decc.gov.uk/assets/decc/mrws/white-paper-final.pdf>