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For a full briefing on the so-called 'facilitative actions' which the Government is carrying out to speed up nuclear developments see

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

1.0 British Energy

1.1 British Energy is to be bought by EdF of France for £12.5bn. The mainly state-owned company, EdF says it wants to build four new reactors¹ - two at Hinkley in Somerset and two at Sizewell in Suffolk. EDF hopes to gain the necessary approvals by the turn of the year and will then negotiate its deal to sell 25 per cent of British Energy to Centrica.²

1.2 The Company has also promised to sell off unwanted land at other British Energy sites so that rival power companies can develop new reactors at Bradwell in Essex, and Dungeness in Kent, but there is a clause in the sale agreement, which allows EdF to delay this until 2011.³ BE confirmed at a public meeting on 18th November in West Mersea that the Bradwell site would be sold off to another nuclear developer, but only after consent has been given for two new reactors at Sizewell.

1.3 In the meantime BE has applied to the Government for environmental impact scoping opinions on possible Section 36 consent applications for four new nuclear power stations at Dungeness, Sizewell, Hinkley and Bradwell. The company has already signed transmission agreements with National Grid for new nuclear build at the four sites.⁴ BE says it has held talks with local communities around the four possible sites.⁵ Potential nuclear operators are required to consult the local community before nominating a site under the Strategic Siting Assessment process.

1.4 Centrica, the parent company of British Gas, has asked its shareholders for £2.2bn to help fund its purchase of a 25% stake in British Energy.⁶

1.5 The taxpayer remains liable for British Energy's £5.5bn decommissioning liabilities from its existing reactors, and any liabilities arising from any breach in its operating licence.⁷

¹ Guardian 25th Sept 2008 <http://www.guardian.co.uk/business/2008/sep/25/edf.britishenergygroup>

² FT 17th Nov 2008

<http://www.ft.com/cms/s/0/ac588a6e-b446-11dd-8e35-0000779fd18c.html>

³ Bloomberg 26th Sept 2008

<http://www.bloomberg.com/apps/news?pid=20601102&sid=ayBKET8gYPgc&refer=uk>

⁴ Platts 17th Nov 2008

<http://www.platts.com/Nuclear/News/8178186.xml?src=rssheadlines0>

⁵ Guardian 18th Nov 2008 <http://www.guardian.co.uk/business/2008/nov/18/britishenergygroup>

⁶ Guardian 1st Nov 2008

<http://www.guardian.co.uk/business/2008/nov/01/centrica-british-energy-gas-prices>

⁷ Observer 28th Sept 2008 <http://www.guardian.co.uk/business/2008/sep/28/edf.utilities>

1.6 Meanwhile of the eight nuclear power stations owned by BE, two have been out of action completely for almost a year - Hartlepool and Heysham One – and are unlikely to return to service until early next year.⁸ Both reactors at Dungeness B are shut for different reasons, and might be back in operation by the end of December. Hinkley Point B and at Hunterston B are both running at 70% power because of cracks in the graphite core of their reactors. Only Torness, Heysham Two and Sizewell are working normally.⁹

2.0 Nuclear Siting

2.1 The NDA has offered land for sale at Wylfa, Bradwell and Oldbury. Potential nuclear power operators as well as renewable power and property developers are expected to be interested.¹⁰ In addition the NDA announced that it would jointly market land at Wylfa with EdF which also owns land adjacent to the reactor site.¹¹ An auction will be launched in the next few weeks.¹²

2.2 E.ON has confirmed that it has reserved 1600MW of capacity with National Grid at Oldbury, and that it would like to build a new reactor at the Gloucestershire site.¹³ The company has been buying up land near Oldbury. But it's unclear how soon the Oldbury site will be available because the nuclear plant is seeking consent to extend its generating life. The plant was scheduled to stop generating electricity in seven weeks, but the Nuclear Installations Inspectorate is deciding whether to allow it to stay open for another two years.¹⁴

2.3 Lawyers from a leading City law firm have warned that the drive to build nuclear power stations will inevitably provoke an "awkward and time consuming" political row, as well as legal challenges that could delay the process "by a year or more." The lawyers say "it remains to be seen" whether ministers can deliver ambitious plans for a new generation of nuclear reactors "without delay from the courts or electoral upset". The lawyers highlight at least nine potential problems after the successful Greenpeace challenge to the "flawed" market research conducted for the BERR. (see 3.3) The government's attempt to fast-track planning applications could have the opposite effect. "The new system is more complicated and could just invite further challenges, slowing everything up."¹⁵

3.0 Public Opinion

3.1 It is generally assumed that people living near existing nuclear sites will be more supportive of new reactors. But a recent opinion survey suggests as many as 38% of the population living close to reactors will only accept new reactors reluctantly if they are essential for energy security and

⁸ Scotsman 11th Oct 2008

<http://business.scotsman.com/energyutilities/Delay-at-nuclear-power-plants.4582337.jp>

⁹ Independent on Sunday 5th Oct 2008

<http://www.independent.co.uk/news/uk/home-news/power-cuts-feared-in-uk-nuclear-plants-crisis-951810.html>

¹⁰ Guardian 10th Sept 2008

<http://www.guardian.co.uk/business/2008/sep/10/britishenergygroup.utilities?gusrc=rss&feed=business>

¹¹ NDA Press Release 24th Sept 2008

<http://www.londonstockexchange.com/LSECWS/IFSPages/MarketNewsPopup.aspx?id=1967618&source=RNS>

¹² Sunday Times 23rd Nov 2008

http://business.timesonline.co.uk/tol/business/industry_sectors/utilities/article5213271.ece

¹³ FT 10th Sept 2008

http://www.ft.com/cms/s/0/4c45c7aa-7f84-11dd-a3da-000077b07658.html?nclick_check=1

¹⁴ Times 21st Nov 2008

http://business.timesonline.co.uk/tol/business/industry_sectors/utilities/article5201452.ece

¹⁵ Guardian 18th November 2008

<http://www.guardian.co.uk/environment/2008/nov/18/nuclear-power-government-ministers-delay>

tackling climate change.¹⁶ If you add the 16% of people who believe the risks of new reactors outweigh the benefits, it means a clear majority do not give unconditional support to new reactors.

3.2 Not surprisingly the Government does not highlight the fact that nuclear power's contribution to reducing carbon emissions can only ever be quite small – perhaps around 4%¹⁷ - and that the huge cost of new reactors would produce much bigger carbon savings if spent on alternatives such as energy efficiency and combined heat and power plants.¹⁸

3.3 Twenty senior academics have already accused the Government of deliberately skewing the results of the second nuclear consultation by burying the fact that nuclear power can only make a small contribution to reducing CO₂ emissions.¹⁹ Now the Market Research Standards Board has ruled that the second consultation, conducted partly by Opinion Leader Research, presented information inaccurately or misleadingly and was imbalanced, following a complaint made by Greenpeace.²⁰

4.0 Nuclear Cost and Finances

4.1 The Government's pledge not to subsidise new reactors, already looking economical with the truth after it emerged the industry will be given a "fixed unit price" for waste disposal,²¹ is looking even less credible after questions by Paul Flynn MP. It is clear from parliamentary answers given to the MP that a significant taxpayer-funded insurance subsidy is being offered to the nuclear industry. He asked the financial value of the insurance indemnity to be granted to the successful bidder to manage Sellafield, but was told it is not possible to put a meaningful financial value to the indemnity. The impossibility of quantifying the monetary value of the indemnity is the main reason that there is no commercially available insurance, and the reason an indemnity is needed.²² An unquantified taxpayer subsidy is also paying for part of the necessary security arrangements at nuclear power stations.

4.2 Construction costs for new reactors in the US will soar, according to Standard & Poor's Ratings Services. Construction risk issues that are "more acute" for new nuclear units than for other types of power projects include "cost inflation in input materials and labour, especially nuclear-related labour; supply chain bottlenecks; and a limited construction track record. S&P said it expects "project contingencies to be high to accommodate uncertainty in pricing." Capital costs, after including interest during construction could vary between \$5,000 per kW and \$8,000 per kW.²³

¹⁶ Guardian 30th September 2008

<http://www.guardian.co.uk/environment/2008/sep/30/nuclearpower.energy> Living with Nuclear Power in Britain: A Mixed-methods Study. Nick Pidgeon, Karen Henwood, Karen Parkhill, Dan Venables and Peter Simmons. Cardiff University and the University of East Anglia. Sept 30 2008.

<http://www.kent.ac.uk/scarr/SCARRNuclearReportPidgeonetFINAL3.pdf>

¹⁷ Guardian 17th January 2006.

<http://www.guardian.co.uk/environment/2006/jan/17/nuclearindustry.energy>

¹⁸ Amory Lovins on Energy, CNN, 16th Oct 2008

<http://edition.cnn.com/2008/WORLD/americas/10/10/amory.lovins/>

¹⁹ Channel 4 News 19th Sept 2007

<http://www.channel4.com/news/articles/society/environment/spinning+a+nuclear+consultation/821457>

Paul Dorfman (Ed) Nuclear Consultation: Public trust in Government, Nuclear Consultation Working Group, 2008. <http://www.nuclearconsult.com/>

²⁰ Greenpeace Press Release 17th Oct 2008 <http://www.greenpeace.org.uk/media/press-releases/official-ruling-browns-pollsters-fixed-second-public-consultation-nuclear-power-20081017>

²¹ The Future will not be Nuclear, by Tom Burke, Prospect Magazine, September 2008.

http://www.prospect-magazine.co.uk/article_details.php?id=10336

²² Guardian 4th Sept 2008

<http://www.guardian.co.uk/commentisfree/2008/sep/04/nuclear.nuclearpower?gusrc=rss&feed=uknews>

²³ Construction Costs To Soar For New U.S. Nuclear Power Plants, Standard & Poors, 15th Oct 2008

4.3 Duke Energy Carolinas has raised the expected construction costs of its proposed Lee Nuclear Station (2x1117MW) to \$11 billion, excluding financing costs. That's roughly twice the company's original estimates. Financing expenses would increase the nuclear plant's price to more than \$14 billion.²⁴

4.4 Arjun Makhijani of the Institute for Energy and Environment Research in Maryland, says electricity costs from new reactors planned in the US are estimated at 10 to 17 cents per kilowatt-hour. This compares with 8 to 12 cents for wind. And new large solar plants in California are expected to yield electricity prices about the same. Rapid new developments in solar and wind energy and energy storage technologies indicate that new nuclear power plants are likely to be economically obsolete even before the first new ones come online in the United States.²⁵

4.5 Europe's first new-generation nuclear power plant, being built in Finland, is now three years behind schedule and will not come on stream until 2012. The reactor being built is a French European Pressurised Water Reactor (EPR). It was originally budgeted at €3bn, but is now expected to cost at least €4.5bn.²⁶ Nine months into construction, Europe's second EPR being built in France is already nine months behind schedule.²⁷

4.6 Steve Thomas of Greenwich University says - after 5 years of talk about a 'Nuclear Renaissance', the absence of any new orders in key markets such as USA, UK and Italy has led to increasing doubts, even before the extent of the impact on the world economy of the 'Credit Crunch' is apparent. He says the Government has yet to face up to the fact that loan guarantees will be necessary if nuclear orders are to be placed. It is one thing for taxpayers to be forced to fork out huge sums to save the global banking system, but quite different to volunteer similar levels of taxpayers' money simply to get nuclear power plants built when there are non-nuclear alternatives that would not need this level of support. The implications of the credit crunch for nuclear power are severe and it is clear that governments and utilities will no longer be able to easily pass the risk of nuclear programmes on to taxpayers and electricity consumers.²⁸

4.7 The financial crisis could not have come at a worse time for the nuclear industry. Clean technology firms face enough challenges in terms of getting project funding in a cash-constrained market, but the capital required to build a nuclear plant dwarfs that needed for, say, a decent-sized wind farm. Moreover, wind and solar can begin producing energy relatively soon after construction begins, and can expand their energy in line with additional construction. Nuclear plants don't produce any output until they're completed, and they can take a long time to build.²⁹

4.8 On the other hand, energy minister, Mike O'Brien, claims the economic downturn will not affect government plans for new reactors. He said, in a speech to Chatham House, that nuclear is a good way of tackling rising energy costs and other recessionary pressures.³⁰ Department of Energy

²⁴ The Business Journal 4th Nov 2008. <http://triad.bizjournals.com/triad/stories/2008/11/03/daily21.html>

²⁵ Nature 2nd Oct 2008 <http://www.nature.com/climate/2008/0810/full/climate.2008.103.html>

²⁶ Guardian 18th Oct 2008 <http://www.guardian.co.uk/environment/2008/oct/18/nuclearpower>

²⁷ Greenpeace International 27th August 2008

<http://www.greenpeace.org/international/press/releases/greenpeace-reaction-to-france>

²⁸ Nuclear Monitor No.679, 13th November 2008 & "The Credit Crunch and Nuclear Power" by Stephen Thomas, Non Proliferation Education Center, November 2008.

<http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=20081112-Thomas-CreditCrunchNuclearPower&PDFFolder=Essays>

²⁹ Business Green 30th October 2008

<http://www.businessgreen.com/business-green/analysis/2229349/carbon-concerns-put-nuclear>

³⁰ ePolitix 17th Nov 2008

<http://www.epolitix.com/latestnews/article-detail/newsarticle/energy-department-to-press-ahead-with-nuclear/>

and Climate Change officials said the speech was intended to show that Ed Miliband's new team will be pressing ahead with creating a new generation of reactors as a matter of urgency.

5.0 Toshiba/Westinghouse

5.1 Westinghouse has signed agreements with BAE Systems, Rolls-Royce and Doosan Babcock to collaborate on plans for new AP1000 reactors in the UK. The agreements are part of the Westinghouse strategy to “buy where we build” with plans for between 70 and 80% of the work and services required to construct the AP1000 being provided by the UK.³¹ The deal could see Barrow’s nuclear submarine builders construct parts for new nuclear power stations.³²

6.0 Supply Chain

6.1 Ministers are close to giving the green light to a financial package of up to £30m to enable a Sheffield manufacturer to build a giant machine vital to the construction of a new series of nuclear reactors. The machine that Forgemasters wants to build is called an open-die press, capable of pressing down on metal with a force of about 15,000 tonnes, making it among the most powerful machines of this type ever built.³³

7.0 Radiation & Health

7.1 A recent flurry of epidemiological studies has spotlighted the issue of the health effects of discharges of radioactivity from nuclear facilities yet again. Last year, researchers at the Medical University of South Carolina carried out an analysis of 17 research papers covering 136 nuclear sites around the world. The incidence of leukaemia in children under 9 living close to the sites showed an increase of 14 to 21%. This was followed by a German study which found 14 cases of leukaemia compared to an expected four cases between 1990 and 2005 in children living within 5 kilometres of the Krümmel nuclear plant near Hamburg, making it the largest leukaemia cluster near a nuclear power plant anywhere in the world. This was upstaged by the yet more surprising KiKK studies (a German acronym for Childhood Cancer in the Vicinity of Nuclear Power Plants), which found higher incidences of cancers and a stronger association with nuclear installations than all previous reports.³⁴

8.0 Alternatives

8.1 The notion that we need nuclear power to address climate change does not reflect the realities of the marketplace or rapid new developments in energy technology, according to Arjun Makhijani of the Institute for Energy and Environment Research in Maryland. The common perception that renewables can provide only a small portion of energy supply is wrong. Intermittency problems can be overcome by co-ordinating different renewable sources.³⁵

³¹ PR Newswire 4th Sept 2008

<http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/09-04-2008/0004878948&EDATE=>

³² North West Evening Mail 4th Sept 2008 <http://www.nwemail.co.uk/news/1.233975>

³³ FT 24th Nov 2008

http://www.ft.com/cms/s/0/cae6da34-b9b5-11dd-99dc-0000779fd18c.html?nclick_check=1

³⁴ See Westmorland Gazette 17th Oct 2008

http://www.thewestmorlandgazette.co.uk/news/3765532.Scientist_warns_of_cancer_risk_from_nuclear_facilities/

³⁵ Nature 2nd Oct 2008 <http://www.nature.com/climate/2008/0810/full/climate.2008.103.html>

8.2 New nuclear plants are so extraordinarily costly they would save about two to 11 times less carbon dioxide emission per dollar, about 20 to 40 times more slowly than investing the same money in efficient use of electricity or in renewables and combined heat and power.³⁶

8.3 Professor Ian Fells - the Today Programme's favourite expert - has been amongst those arguing that future energy shortages in Britain cannot be solved by developing renewable sources alone.³⁷ He says he can't do the sums any way without having nuclear in the mix. The Centre for Alternative Technology has done the sums and found that through a radical rethink of how we use energy and massive investment in renewables, the UK could meet its energy needs without fossil fuels or nuclear.³⁸ "The sums" are contained in their report, Zero Carbon Britain.³⁹

8.4 The new Secretary of State for Energy and Climate Change, Ed Miliband, is reported to be drawing up plans - to be published at the end of November - which will introduce tough targets for cutting carbon emissions from the country's 26 million homes, along with generous incentives to help householders meet them. By prioritising energy saving the Government hopes to create employment, mitigate the effects of fuel price rises, make it easier for Britain to achieve energy security, and combat climate change.⁴⁰ World Nuclear News reported that the nuclear industry was sorry to see John Hutton go.⁴¹

8.5 Now that the Government has accepted a recommendation from the Committee on Climate Change to reduce carbon emissions by 80% by 2050, it will have to dramatically improve the energy efficiency of existing homes, since 85% of them are expected to be still standing in 2050. As well as a massive insulation programme, microgeneration schemes, such as solar panels, will need to be installed at a rate of around 600,000 every year for the next 42 years, rather than the paltry 121,000 expected over the next three years.⁴²

8.6 The scale of this challenge may seem somewhat daunting, but it can be done provided policies change. New technology will help to make these targets achievable. For example, Baxi Heating is one of several companies expected to introduce a micro-CHP boiler on to the market next year. These will replace existing domestic gas boilers, but can also produce electricity which can be either used by the householder or sold back to the Grid.⁴³ Bearing in mind that around 1.5 million boilers need to be replaced every year, the scale of this task looks a bit more achievable.⁴⁴

8.7 If all domestic gas boilers that reach the end of their useful life were replaced with micro CHP, we could in theory install the equivalent to one nuclear power station every year. By 2020, we could have the equivalent of ten nuclear power stations, before any new reactors are open. Whilst nuclear takes decades to build before saving any carbon or producing electricity, micro CHP can be installed 1kW at a time, producing power from day one.

³⁶ CNN 16th Oct 2008 <http://edition.cnn.com/2008/WORLD/americas/10/10/amory.lovins/>

³⁷ <http://fellsassociates.awardspace.com/site/PressRelease17thSept2008.html>

³⁸ Guardian 18th Sept 2008 <http://www.guardian.co.uk/commentisfree/2008/sep/18/energy.energy>

³⁹ <http://www.zerocarbonbritain.com/>

⁴⁰ Independent on Sunday 19th October 2008

<http://www.independent.co.uk/environment/green-living/milibands-blueprint-for-greener-homes-966239.html>

⁴¹ World Nuclear News 3rd Oct 2008

http://www.world-nuclear-news.org/IT_NP_UK_nuclear_loses_Hutton_0210081.html

⁴² Home Truths: A Low Carbon Strategy to Reduce UK Housing Emissions by 80% by 2050, by Brenda Boardman, FoE (EWNI) and Co-operative Bank, November 2007.

http://www.foe.co.uk/resource/reports/home_truths.pdf

⁴³ Lancashire Evening Post 25th Sept 2008.

<http://www.lep.co.uk/businessnews/New-green-boilers-to-secure.4529846.jp>

⁴⁴ MicroChap 10th Jan 2008

<http://microchp.blogspot.com/2008/01/nuclear-energy-and-micro-chp.html>

8.8 A drive to train builders and tradesmen to carry out green refurbishment projects, and install microgeneration systems, including micro-CHP boilers could be an enormous business opportunity and a huge source of employment. This “Green New Deal” would create jobs, revive the economy, slash poverty and head off environmental disaster.⁴⁵

8.9 The Government is legally bound to abolish fuel poverty by 2016 and to eliminate it among the most vulnerable households by 2010.⁴⁶ With rising fuel prices as many as 5m households, many of them pensioners, now face a stark choice of "heat or eat". And according to the NHS at least eight old people are dying every hour from cold related illnesses in the winter months. A judicial review launched by Help the Aged and Friends of the Earth in the high court failed in its attempt to force the UK Government to live up to its promise, made in 2000, to eradicate fuel poverty.⁴⁷ Fuel Poverty campaigners are struggling to see how nuclear power will help the situation.

8.10 If the government is serious about renewables and energy efficiency, Britain doesn't need to build major new power stations, according to a new report by independent energy experts Poyry. If the UK achieves its commitment to meet EU renewable energy targets and its own ambitious energy efficiency action plan, then major new power stations (coal, gas or nuclear) would not be needed to meet electricity requirements up to at least 2020.⁴⁸

8.11 The UK is committed to producing 15% of its total energy demand (not just electricity) from renewable sources by 2020 under EU wide energy targets - in 2005 we managed only 1.3%. The House of Lords European Union Committee says wholesale changes will be needed in the Government's approach to energy policy if the target is to be met. It says energy efficiency measures should form the starting point and the Committee calls for a 20% energy reduction target by 2020. The Lords also point out that 41% of the UK's energy use is for heating and cooling. The Committee stresses that renewable heat technologies and micro-electricity generation should be as important a part of meeting the UK's renewables target as large-scale electricity generation. It calls on the Government to increase existing micro-generation grants and to introduce a system of renewable heat grants to ensure individuals have an economic incentive to explore options for micro-energy generation at home.⁴⁹

9.0 Managing Radioactive Waste Safely

9.1 Since the White Paper on Managing Radioactive Waste Safely⁵⁰ invited Councils in England and Wales to volunteer to host a nuclear waste dump, only Copeland has confirmed that it has put its name forward. Allerdale Borough Council – part of Cumbria - says it will make an “expression of interest” in hosting an underground repository to store radioactive material if the community agrees to it.⁵¹

⁴⁵ Independent on Sunday 19th October 2008 <http://www.independent.co.uk/environment/green-living/green-energy-is-not-a-middleclass-conceit-more-the-only-way-forward-966068.html>
UNEP 21st Oct 2008

<http://www.unep.org/Documents/Multilingual/Default.asp?DocumentID=548&ArticleID=5955&l=en>

⁴⁶ Guardian 6th Oct 2008 <http://www.guardian.co.uk/money/2008/oct/06/householdbills.economy>

⁴⁷ Help the Aged Press Release 23rd October 2008

<http://press.helptheaged.org.uk/press/Releases/items/Government+fuel+poverty+failure+escapes+legal+reprimand.htm>

⁴⁸ Greenpeace 1st August 2008 <http://www.greenpeace.org.uk/media/press-releases/energy-experts-say-renewables-and-efficiency-could-plug-energy-gap-20080801>

<http://www.greenpeace.org.uk/files/pdfs/climate/meeting2020renewabletarget2.pdf>

⁴⁹ The EU's target for renewable energy: 20% by 2020, House of Lords European Union Committee, October 2008.

<http://www.publications.parliament.uk/pa/ld200708/ldselect/ldcom/175/175.pdf>

⁵⁰ Managing Radioactive Waste Safely: A Framework for Implementing Geological Disposal, DEFRA, June 2008. <http://www.defra.gov.uk/environment/radioactivity/mrws/pdf/white-paper-final.pdf>

⁵¹ Whitehaven News 29th August 2008 <http://www.whitehaven-news.co.uk/1.231017>

Cumbria County Council held a full council meeting on 20th November to debate the matter, but the final decision will be taken by the Labour-controlled Cabinet meeting on 9th December.⁵² The cabinet says it is “minded” to table an expression of interest.⁵³

9.2 Many councillors were furious that the decision would be taken without them having a vote. The Cabinet was accused of “negating democracy”.⁵⁴

9.3 Cumbria County Council, will only be making a without commitment expression of interest for the Copeland area. If Allerdale also expresses an interest the County will extend this to the whole of West Cumbria rather than Copeland.

9.4 Copeland MP Jamie Reed has suggested a referendum over Copeland’s willingness to house the UK’s nuclear waste repository. Mr Reed says “Nobody should assume a deep-storage repository for nuclear waste will be housed in Copeland.”⁵⁵

9.5 Cumbria County Council ran an informal consultation which closed on 14th October 2008.⁵⁶ Almost 900 people signed a petition demanding the County oppose nuclear waste dumping.⁵⁷

9.6 The timetable for the waste dump has been made public by the NDA. The Authority hopes to identify two candidate sites by 2012, investigate the sites between 2014 and 2025 and announce the preferred site by 2025.

9.7 Asked why Copeland is apparently willing to host a nuclear repository, when earlier investigations suggested the area was not suitable, Elaine Woodburn, leader of the Council said: “Nirex did carry out some exploration work but none of the work carried out was to the depth that a geological repository would be. In fact the whole process stopped when planning permission was sought for a Rock Characterisation Facility. It was this facility that would have proven if the areas being looked at were geologically suitable or not. Therefore factually it was never proven that areas being looked at were geologically suitable or not”.⁵⁸

9.8 In fact, Chris McDonald, the lead inspector of the 1995-96 public inquiry into the proposed nuclear waste facility near Sellafield, says evidence from the Inquiry showed the safety case was at best marginal - investigations should be moved elsewhere.⁵⁹ David Smythe, professor of geophysics at Glasgow University warned it would be “wrong” and possibly illegal in international law to use Sellafield which should have been ruled out after previous research proved the area was unsuitable. There is clear evidence that West Cumbria possesses no suitable rocks.⁶⁰

9.9 At a meeting held in Allerdale on 21st October, a UK Government official responsible for the Managing Radioactive Waste Safely strategy was asked what 'Plan B' was if West Cumbria was the only place to volunteer - but there was no suitable site. He replied that Plan B was to make Plan A work. This is significant because many of the potential new reactor operators want some kind of guarantee that the repository will happen, or alternatively an agreement about when the Government

⁵² Whitehaven News 5th November 2008 <http://www.whitehaven-news.co.uk/news/1.265423>

⁵³ Whitehaven News 5th Nov 2008. <http://www.whitehaven-news.co.uk/1.265202>

⁵⁴ Whitehaven News 21st Nov 2008 <http://www.whitehaven-news.co.uk/1.273633>

⁵⁵ Whitehaven News 24th Sept 2008 <http://www.whitehaven-news.co.uk/news/people/1.245442>

⁵⁶ Cumbria County Council August 2008
<http://www.cumbria.gov.uk/communications/mrws/default.asp>

⁵⁷ Whitehaven News 16th Oct 2008 <http://www.whitehaven-news.co.uk/1.255789>

⁵⁸ Whitehaven News 8th Oct 2008 <http://www.whitehaven-news.co.uk/news/business/1.251839>

⁵⁹ Flaws in search for nuclear waste site, letter to The Guardian by Chris McDonald, 28th June 2008
<http://www.guardian.co.uk/world/2007/jun/28/nuclear.uk>

⁶⁰ Sellafield ‘not fit’ for nuclear waste disposal, by Terry Macalister, Guardian 2nd November 2007.
<http://www.guardian.co.uk/business/2007/nov/02/nuclearindustry.greenpolitics>

will take on the liability of their spent fuel. The Government has to give the impression the disposal option has been sorted out in order to be able to continue pushing for new reactors.

9.10 A discussion paper produced by the Department of Energy and Climate Change (DECC) suggests new reactors might end up requiring their own waste repository involving a massive escalation in cost. And the British Geological Survey (BGS) and the Committee on Radioactive Waste Management (CoRWM) argue that more research is needed on whether different kinds of waste can be stored together.⁶¹

9.11 The NDA has been running a consultation on its framework for public and stakeholder engagement and communication. The resulting strategy must be agreed by government. The consultation closed on 30th November 2008.⁶²

9.12 An Environment Agency report has suggested that thousands of containers of intermediate-level waste are likely to fail before being sealed away in an underground dump. The document shows that many containers used to store the waste are made of second-rate materials, are handled carelessly, and are liable to corrode. The report concludes: "It is cautious to assume a significant proportion will fail." It says computer models suggest up to 40 per cent of them could be at risk.⁶³ The containers are stored above ground, mainly at Sellafield, but despite plans for an underground dump, could remain there for up to another 150 years before being placed underground. This has raised the debate again about whether it is best to allow waste to be retrievable so that it can be repackaged, or whether it should be placed underground quickly and sealed up before it starts to leak.⁶⁴

9.13 Meanwhile leaking nuclear drums in an underground storage facility in Lower Saxony in Germany are threatening to contaminate groundwater. No one knows what to do about radioactive water leaking from the mine.⁶⁵

10.0 Low Level Waste

10.1 Copeland is set to receive millions of pounds in community benefit now that construction of Vault 9 at the low-level radioactive waste repository, near Drigg has started. The first £5 million will be released soon by the NDA and another £10 million will follow later. Thereafter Copeland will receive £1.5 million for every year the repository continues to receive the waste, probably up to 2070.⁶⁶

10.2 Meanwhile, Highland Council is being pressed to ensure that Caithness residents receive a cash windfall if plans for a low level waste dump near Dounreay go-ahead. The move to create a community fund is being spearheaded by the Dounreay Stakeholder Group.⁶⁷

10.3 A massive incinerator is under consideration by the Sellafield operator. About 400,000 tonnes of domestic waste could be shipped into Sellafield to feed the new incinerator to be burned alongside low level waste from Sellafield and materials already shipped to Drigg.⁶⁸

⁶¹ Guardian 17th Nov 2008

<http://www.guardian.co.uk/environment/2008/nov/17/nuclear-power-waste-energy-pollution>

⁶² <http://www.nda.gov.uk/documents/loader.cfm?url=/commonspot/security/getfile.cfm&pageid=22009>

⁶³ Independent on Sunday 24th August 2008 <http://www.independent.co.uk/environment/green-living/nuclear-waste-containers-likely-to-fail-warns-devastating-report-907200.html>

⁶⁴ Independent on Sunday 31st August 2008

<http://www.independent.co.uk/opinion/letters/letters--emails-lords-is-still-a-glorified-club-913886.html>

⁶⁵ Der Spiegel 3rd Sept 2008 <http://www.spiegel.de/international/germany/0,1518,576027,00.html>

⁶⁶ Whitehaven News 5th Nov 2008

<http://www.whitehaven-news.co.uk/news/1.265369>

⁶⁷ Aberdeen Press and Journal 17th Sept 2008

<http://www.pressandjournal.co.uk/Article.aspx/841536?UserKey=>

11.0 Sellafield

11.1 The NDA has chosen the consortium which will own the Parent Body Organisation (PBO) to run the Sellafield site licence company (incorporating Sellafield itself, Calder Hall, Capenhurst and Windscale). The Nuclear Management Partners (NMP) consortium, which comprises Amec, URS Washington Division and France's Areva, had the shares in Sellafield Ltd transferred to it from BNFL on 24 November 2008.⁶⁹ The initial £5bn, five-year deal, could be extended to 17 years, making it potentially the UK's biggest public procurement deal. NMP beat three other bidders; CH2MHill Nuclear Services; a consortium of Serco, Bechtel and Babcock & Wilcox; and Fluor in combination with Toshiba.⁷⁰ The contract could be worth a staggering £22bn of taxpayers' money.

11.2 A row over an insurance indemnity deal with NMP led to a Parliamentary debate. Paul Flynn MP accused the Government of covering up the deal. He discovered details of the contract to privatise the management at Sellafield should have been placed in the House of Commons library in July. If they had been, MPs would have had 14 days in which to raise questions about the deal. In fact, the contract was not put into the library until October, by which time the opportunity to scrutinise it had gone. Those companies involved in the consortium from countries not signatories to the relevant international treaty could have been exposed in their home courts to legal action following an accident, despite the UK Government picking up all costs above the £140 million limit established under the scope of the Nuclear Installations Act in order to provide those companies with the same level of comfort as that established by law for UK-based companies the UK Government agreed the indemnity.⁷¹

11.3 The NDA has also confirmed that Sellafield Ltd - as the new organisation will be known - would be exempt from the Freedom of Information laws because it is a private company. Since the NDA still owns the land and buildings people will still be able to make requests through the NDA but will not be able to request information directly from the consortia.⁷²

11.4 The THORP reprocessing facility will probably not shut down in 2011, as earlier planned, but could continue operations for another five to 10 years beyond that, officials from British Nuclear Fuels (BNFL) told Bellona nuclear physicist Nils Bohmer, who visited the site.⁷³ The closure date for the Magnox reprocessing plant has already been delayed from 2012 to 2016 because of equipment failures.

11.5 The future of reprocessing at Sellafield depends on the installation of a massive piece of new equipment, known as Evaporator D, which will cost hundreds of millions of pounds – double the original estimate. The NDA will now have to go cap in hand to the government to ask for more money. The Nuclear Installations Inspectorate says “Further evaporator capacity at Sellafield is essential for the longer term safe management of highly active liquor.” The site currently has three evaporators used to concentrate highly radioactive liquors prior to storage and vitrification but it needs a fourth.⁷⁴

12.0 Sellafield MoX Plant

⁶⁸ Guardian 17th Nov 2008

<http://www.guardian.co.uk/environment/2008/nov/17/nuclear-power-waste-pollution>

⁶⁹ NDA Press Release 6th Oct 2008 <http://www.nda.gov.uk/news/nmp-agreement.cfm>

⁷⁰ Guardian 12th July 2008 <http://www.guardian.co.uk/environment/2008/jul/12/nuclearpower.pollution>

⁷¹ NDA 18th Nov 2008 <http://www.nda.gov.uk/news/guardian171108.cfm>

⁷² Guardian 17th Nov 2008

<http://www.guardian.co.uk/politics/2008/nov/17/freedom-of-information-sellafield>

⁷³ Bellona 22nd August 2008 http://www.bellona.org/articles/articles_2008/thorp_extended

⁷⁴ Whitehaven News 8th Oct 2008 <http://www.whitehaven-news.co.uk/news/1.251885>

12.1 The Sellafield MoX Plant (SMP), completed in 1997 at a cost of £470m, has so far only produced around 5 tonnes of MoX (plutonium) fuel, compared with the 120 tonnes it should be producing every year.⁷⁵

12.2 Because SMP's throughput has been so bad, Sellafield has been sub-contracting orders to France and transporting plutonium by sea to Europe. In May French nuclear safety authorities spotted an alleged certification problem over the status of plutonium sent from Sellafield to France on May 21. As a result of the mistake, the UK Department of Transport (DfT) banned further plutonium movements from Sellafield until the issue was resolved.⁷⁶ Sellafield Ltd says it has been working closely with the DfT to resolve the problem and shipments will probably resume soon.⁷⁷

13.0 Plutonium Stockpile

13.1 The UK's stockpile of plutonium from reprocessing has risen to 108 tonnes, up by 1.1 tonnes over the previous year, according to the Government's latest submission to the International Atomic Energy Agency. The stockpile at the end of 2007 is enough for 13,500 nuclear bombs. Most is stored at Sellafield in Cumbria.⁷⁸

13.2 The NDA launched a consultation on what to do with all this plutonium in August 2008.⁷⁹ It is deciding whether to treat it as waste or reuse it as fuel for nuclear reactors. A July 2007 study for the NDA said the UK has enough plutonium to fuel three 1000 MWe reactors for their entire 60-year lives.⁸⁰ The future of the stockpile will be decided by ministers over the next year.⁸¹ According to *The Times*, if it was decided to convert it into MoX, a new fuel fabrication plant would be needed. Areva says it is talking to the NDA the possibility of building a new MOX plant at Sellafield.⁸² A third option might be to store the plutonium for possible future use.

14.0 Radioactive Waste Discharges

14.1 DEFRA launched a consultation on its draft revised UK strategy for radioactive discharges 2006-2030 - an update on the 2001-2020 strategy issued in 2002 - which is supposed to show how the Government will implement the OSPAR Strategy for radioactive substances.⁸³ At the same time it also issued a consultation on a draft Statutory Guidance to the Environment Agency on the regulation of radioactive discharges into the environment.

14.2 The UK Government agreed, at the 1998 Ministerial meeting of the Oslo and Paris (OSPAR) Commission - the treaty for the protection of the marine environment of the North-east Atlantic - to achieve "*substantial reductions or elimination of discharges*" by the year 2020, "*to levels ...close to zero*".⁸⁴ But it now looks as though the Government is renegeing on its commitments, not least because

⁷⁵ Guardian 3rd March 2008 <http://www.guardian.co.uk/world/2008/mar/03/nuclear.energy>

⁷⁶ Whitehaven News 16th July 2008 <http://www.whitehaven-news.co.uk/news/business/1.204661>

Independent on Sunday 27th July 2008

<http://www.independent.co.uk/news/uk/home-news/ferry-shipments-of-terrorthreat-plutonium-end-878269.html>

⁷⁷ Whitehaven News 11th Oct 2008 <http://www.whitehaven-news.co.uk/news/1.251901>

⁷⁸ New Scientist 9th July 2008 <http://www.robbedwards.com/2008/07/uk-plutonium-stocks-rise.html>

⁷⁹ NDA Plutonium Options Consultation, August 2008.

<http://www.nda.gov.uk/documents/upload/Plutonium-Options-for-Comment-August-2008.pdf>

⁸⁰ NDA News 2nd July 2007 <http://www.nda.gov.uk/news/uranium-plutonium.cfm>

⁸¹ Times 18th August 2008

http://business.timesonline.co.uk/tol/business/industry_sectors/utilities/article4553489.ece

⁸² FT 9th June 2008 <http://www.ft.com/cms/s/0/a957260e-35bb-11dd-998d-0000779fd2ac.html>

⁸³ See <http://www.defra.gov.uk/corporate/consult/rad-discharges-ukstrategy/index.htm>

⁸⁴ The Oslo Paris Convention for the Protection of the Marine Environment of the North-East Atlantic, Comprising the European Commission and 15 European nations including the UK. Ministerial meetings take place every 5 years, the 1998 meeting held in Sintra, Portugal. <http://www.ospar.org>

the Magnox reprocessing plant is expected to continue operating until 2016, and the THORP reprocessing plant perhaps 2020.

14.3 Since this submission was made it has emerged that Oldbury Magnox station has applied for permission to remain open beyond December this year when it was scheduled to close. Due to the fact that the closure of the Magnox reprocessing plant has been delayed, the removal of the spent fuel rods from Oldbury and dispatching them to Sellafield for reprocessing has been delayed until 2011. The operator Magnox North wants to keep the station running in the intervening period. This will obviously have a knock-on effect at Sellafield further delaying the reduction in radioactive discharges to the Irish Sea.⁸⁵

15.0 Nuclear Decommissioning Authority

15.1 The NDA has been accused of failing to get a grip on soaring costs. The cost of decommissioning nuclear power sites could rise “significantly” above the £73bn already estimated, according to the Public Accounts Committee. Costs for work over the next five years have already risen “steeply”. Uncertainty over costs far in the future is understandable, but “difficult to justify” for imminent work.⁸⁶

15.2 The credibility of the NDA was shaken even further after the estimated cost of cleaning up waste was raised by a further £10bn. The latest clean-up estimate from the NDA suggests the commonly accepted figure of £73bn should rise to £83bn.⁸⁷

15.3 At the end of July the Government sneaked out its internal audit of the NDA’s funding. (“Response to the Business and Enterprise Committee Funding the Nuclear Decommissioning Authority”) and follow up report (“NDA Budgetting Shortfall 2007-08: Lesson Learned”). These reports expose massive cost overruns, amateurish bureaucratic cock-ups and complete chaos within the NDA.⁸⁸

15.4 The NDA has denied it is unfairly concentrating its resources on Sellafield at the expense of other decommissioning sites. Scottish trade unionists have complained that £8.5m has been cut from the budget of the Dounreay plant in Caithness. In its latest business plan, the authority makes clear that funding has been re-prioritised from other sites to Sellafield. It goes on to state that this could lead to the future diversion of funding, which could stall planned activities at other sites.⁸⁹ Dounreay unions fear jobs could be hit through the deferral of work programmed for the winter and spring.⁹⁰

16.0 Scottish News

16.1 The Scottish Government published 3 reports in November covering options to mitigate future climate change, trends in future energy supply and demand, and an assessment of the impact of increasing renewable electricity upon the grid network.

⁸⁵ Bristol Evening Post 5th Nov 2008. <http://www.thisisbristol.co.uk/business/Operators-want-Oldbury-nuclear-plant-power/article-454150-detail/article.html>

⁸⁶ Guardian 10th July 2008 <http://www.guardian.co.uk/world/2008/jul/10/nuclear.nuclearpower>

⁸⁷ Guardian 18th July 2008 <http://www.guardian.co.uk/environment/2008/jul/18/nuclearpower.energy?gusrc=rss&feed=networkfront>

⁸⁸ Greenpeace Briefing July 2008 <http://www.greenpeace.org.uk/files/pdfs/nuclear/nda-chaos-20080724.pdf>

⁸⁹ Whitehaven News 2nd Sept 2008 <http://www.whitehaven-news.co.uk/1.232177>

⁹⁰ John O’Groat Journal 27th Aug 2008 http://www.johnogroat-journal.co.uk/news/fullstory.php/aid/5199/Anger_at_pound;8.5m_cut_in_Dounreay_budget.html

16.2 The first report by AEA Technology - “Mitigating Against Climate Change in Scotland: Identification and Initial Assessment of Policy Options” - identifies a wide range of emissions reduction options for 2050 which could contribute to the delivery of Scotland's 80% cut in greenhouse gas emissions.⁹¹ The report is based on a literature review and discussions with informed specialists in specific areas of climate change policy. It gives a flavour of the sort of major emissions reductions that could be possible and the policies that might play a part in achieving them.

16.3 Policy options range from banning biodegradable waste from landfills and introducing fuel efficient vehicles to grants for biomass domestic heating and installing solar water heating. But two points stand out. Firstly, it is possible to meet the target without building new reactors in Scotland and secondly, by far the largest contribution to carbon savings could be from introducing carbon capture and storage technology for electricity generation – but this still requires further research work.

16.4 The report will not be without controversy since it shows that replacement nuclear power stations could reduce carbon emissions at a cost of 0.3 £/tCO₂eq compared with 16 £/tCO₂eq for (unproven) carbon capture and storage or 84 £/tCO₂eq for significant support for emerging renewables. The report then drops nuclear from its recommendations because it is a “problematic measure” with acceptability dependent on risk perception. The costs are based on those given in the UK’s Energy White Paper which have been criticised by some as being too dependent on figures provided by the nuclear industry.

16.5 AEA also calls for the mapping of opportunities for District Heating and Combined Heat and Power (CHP). This would clearly make sense as there may be no guarantees that carbon capture and storage technology can be made to work economically and dovetails in with calls for moves towards a more decentralised provision of our electricity and heat supplies. A report earlier this year by Pöyry found two industrial sites in Scotland where CHP could be installed or extended, one at Grangemouth and one near Peterhead.⁹² There are a growing number of communities in Scotland looking to emulate the CHP projects in social housing schemes in Aberdeen and Clydebank. AEA says in 2006 there were 87 CHP schemes in Scotland generating over 3 GWh of electricity and 8 GWh of heat. This represents 6% of power generated and 8% of heat use in Scotland. These CHP schemes mainly serve large process sites in the petrochemicals, chemicals and food sectors, with some smaller installations in the public and service sectors, hospitals, swimming pools, hotels etc.

16.6 The “Scottish Energy Study - Volume 5 : Energy and Carbon Dioxide Projections for Scotland”⁹³ also by AEA, examines the prospects for future energy supply and demand in Scotland, and the implications of these trends for energy related CO₂ emissions up to 2020. Amongst the findings is that Scottish final energy demand could fall by between 4 per cent and 6 per cent between 2005 and 2020, and Scottish energy related CO₂ emissions could decline by between 13 per cent and 18 per cent over the same period.

16.7 Nuclear’s share of primary energy declines with the possible closure of Hunterston B after 2016. This is replaced mainly by renewable energy which grows substantially (between 241% and 248%), mainly in electricity generation, and by 2020 accounts for about 15% of primary energy supply.

⁹¹ <http://www.scotland.gov.uk/Resource/Doc/244863/0068651.pdf>

⁹² Guardian website 19th June 2008

<http://www.guardian.co.uk/environment/2008/jun/19/renewableenergy.energyefficiency>

Securing Power: Poyry report for Greenpeace: Summary.

http://www.greenpeace.org.uk/files/pdfs/climate/industrialCHP_summary.pdf

EnoughsEnough.org partnered with Greenpeace on a full-page ad in The Times on 20th June 2008

<http://www.enoughsenough.org/nuclear.pdf>

⁹³ <http://www.scotland.gov.uk/Resource/Doc/245369/0069126.pdf>

16.8 The third report assesses the impact of increasing renewable electricity upon the electricity grid up to 2030, clearly demonstrating that the transmission network could cope with some 8 Gigawatts of installed renewables capacity in 2020, which would be required to meet the Scottish target of 50% of electricity to be supplied by renewables by 2020, without the need for significant investment over and above that already approved by Ofgem.⁹⁴

17.0 Dounreay

17.1 In June 1998 a multidisciplinary team of Health and Safety Executive (HSE) inspectors and an inspector from the Scottish Environment Protection Agency (SEPA) undertook a safety audit at Dounreay, following an incident when a mechanical digger damaged an electrical cable cutting supplies to the Fuel Cycle Area. A report on the findings of the Safety Audit, published in September 1998, included some 143 recommendations.⁹⁵

17.2 The 2001 Safety Audit, Final Report,⁹⁶ said 89 of the original recommendations had been carried out. The remaining 54 recommendations either needed several years to complete or were strategic in nature and had long timescales associated with their completion, in some cases extending to several decades. A new HSE report now describes achievements since 2001.⁹⁷

17.3 Despite earlier having said some of the recommendations would take decades, HSE now says that although not all work required to meet some recommendations has been completed, progress demonstrates an improvement in UKAEA's safety and environmental management performance at Dounreay, so rather than continue with a dwindling list, the on-going work will be monitored as part of the routine regulatory inspections on the site undertaken by SEPA's and HSE's inspectors.

17.4 The current Lifetime Plan (2008) for Dounreay gives a target date for completion of decommissioning as 2024. As a result of this accelerated decommissioning programme and the priority focus on removing hazards and decommissioning contaminated facilities, many of the recommendations were completed or significant progress was made.

17.5 One of the recommendations remaining in 2001, which NFLA (Scotland) objected to, was that spent fuel should be removed from the old Dounreay Fast Reactor and sent to Sellafield for reprocessing. This is now not going to happen. The spent fuel will, instead, be treated as waste. Another recommendation was that there should be a clear plan for the processing, reprocessing or treatment of all fuels on site. Reprocessing is no longer considered an option.

17.6 The waste shaft, which it was recommended should be emptied as soon as possible, has now been isolated from the rock structure surrounding it by inserting a grout curtain around the shaft to provide containment, significantly reducing the level of ground water ingress. Waste retrieval from the shaft will take place 'as soon as is reasonably practicable'.

17.7 The Safety Audit update report does not deal with the waste cementation plant, which was temporarily closed in September 2005 following the spillage of a batch of liquid waste (waste which has only recently been re-classified as intermediate level from high-level). This resulted in the Nuclear Installations Inspectorate serving two Improvement Notices on UKAEA. The first Notice related to necessary improvements in training and the second Notice related to

⁹⁴ <http://www.scotland.gov.uk/Resource/Doc/917/0068269.pdf>

⁹⁵ Safety Audit of Dounreay, HSE & SEPA, 1998. 1998 Report
<http://www.hse.gov.uk/nuclear/dounreay.pdf?ebul=nuclear/oct-08&cr=12>

⁹⁶ Safety Audit of Dounreay 1998: 2001 Report. HSE, 2001
<http://www.hse.gov.uk/nuclear/auditfin.pdf?ebul=nuclear/oct-08&cr=13>

⁹⁷ Outcome of 1998 Safety Audit of Dounreay Nuclear Licensed Site, HSE, 2008
<http://www.hse.gov.uk/nuclear/dounreay-audit.pdf?ebul=nuclear/oct-08&cr=01>

improvements to operating instructions and in the control of modifications to plant. The plant resumed work in April 2008 after decontamination work had been completed.

17.8 Meanwhile Highland Council has delayed consideration of the planning application for a new low-level waste facility at Dounreay. The application was to have been considered by councillors at the beginning of November, but has now been delayed until 17th December. It is understood the delay is to allow discussions about payments to a community benefit fund, should the application be approved. Planning officials are expected to recommend conditional approval of the £110 million scheme despite fierce opposition from residents of the adjoining small settlement of Buldoo.⁹⁸

17.9 Wick-based offshore contractor Fathoms Ltd has been contracted to recover radioactive particles from the seabed off the coast of Dounreay using a remotely-operated vehicle (ROV) capable of detecting and retrieving particles buried up to 50cm deep in the sediment. Recovered particles are packaged and returned to Dounreay.⁹⁹ Work started in August and September, but weather conditions effectively limit the period of operation to May-September each year. The estimated cost of the clean-up, as well as continued beach monitoring up to the early 2020s is £18-25 million.

17.10 The contract for beach monitoring is due for renewal in 2008. An American company is tendering for the contract to monitor and recover radioactive particles from the Sandside beach near Dounreay. Mactec believes its equipment has much improved detection capabilities than the equipment currently being used for the contract by Nuvia. Mactec is also proposing daily surveying of the beach to catch the particles before they are buried deeply in the sand. Their proposal is being supported by Mr Geoffrey Minter of Sandside Estates who has been to America to see the equipment. He believes it is important to have daily surveying of the beach.

17.11 More radioactive particles are coming ashore at Sandside Beach than previously estimated, according to the Dounreay Particles Advisory Group (DPAG). It has also revised upward the risk of someone accidentally coming into contact with one of the rogue metallic fragments but remains satisfied that the contamination does not pose a significant risk to the public. In its fourth and final report, it also welcomes the launch of a multi-million pound clean-up of the seabed immediately off the plant. The area – which is part of a fishing exclusion zone – contains a cache of 1500 or so potentially lethal particles.¹⁰⁰

18.0 Scottish Government

18.1 The UK Government was reported to be searching for a way to end Scotland's veto over the building of new reactors. It has asked the Calman Commission – set up to review devolution – to solve the "problem" of Holyrood using devolved powers to block its energy plans. There is also said to be concern from the Ministry of Defence over the way the Scottish Government has orchestrated opposition to nuclear weapons.¹⁰¹ In its submission to the Calman Commission, the UK government says there are areas "where the inevitable overlap between devolved and reserved matters has the potential to cause difficulty". These include Holyrood's planning powers and the

⁹⁸ John O Groat Journal 28th Nov 2008

http://www.johnogroat-journal.co.uk/news/fullstory.php/aid/5801/Dump_plan_decision_due_next_month.html

⁹⁹ <http://www.dounreay.com/news/2008-08-26/seabed-particle-cleanup-underway>

¹⁰⁰ John O Groat Journal 21st Nov 2008

http://www.johnogroat-journal.co.uk/news/fullstory.php/aid/5760/Beach_radioactivity_higher_than_estimated_.html

¹⁰¹ Scotsman 11th Nov 2008 <http://news.scotsman.com/latestnews/London-seeks-end-to-Scots.4679831.jp>

ability of the Scottish Government to make rulings under the Electricity Acts, namely, in relation to nuclear power. The Scotland Office submission to Calman states: "It was clearly not the intention of Parliament in passing the Scotland Act that the use, or threatened use, of devolved powers should undermine the delivery of reserved policies."

18.2 However, Jim Murphy, the Scottish Secretary, said: "The British government has no intention whatsoever of taking planning policy from the Scottish government". He told Newsnight Scotland that it's important for the Parliament to have planning powers, but the UK Government has power over energy policy - "...we have to look to see if we can have better working relations so that both parliaments and both governments can work in the interests of Scotland."¹⁰²

18.3 The Calman Commission's interim report warned of "friction" between London and Holyrood over nuclear power and said the issue had to be resolved without disrupting the UK supply network – a statement which the Nationalists interpreted as a clear threat to Scotland's veto. The Commission said it wanted further evidence on how this "friction" could be sorted out. One way would be to hand all energy policy in Scotland over to the Scottish Parliament – but this would cause problems over the control of the national grid and be opposed by business organisations and the UK government. The other alternative would be to strip the Scottish Government of its veto. This could be done by amending the relevant electricity control legislation, depriving Scottish ministers of any power of planning for large-scale generating stations.¹⁰³

18.4 Aileen McHarg, Senior Lecturer in Public Law at the University of Glasgow says the UK government's submission to the Calman Commission suggests the Scottish Government's declared intention to refuse consent to new nuclear power stations is an illegitimate use of its power to undermine policy on a reserved matter. The difficulty with the UK government's argument is that its policy on nuclear new-build is just that: policy, not law. The UK submission to the Calman Commission says more about its unwillingness to brook opposition to its nuclear policy than to a defect in the devolution settlement.¹⁰⁴

19.0 New Scottish Reactors

19.1 Allan Wilson, the former MSP for Cunninghame North – the constituency which hosts Hunterston – has been expressing support for new reactors, following reports of a proposal to construct a new coal-fired power station at Hunterston. "North Ayrshire needs a vibrant nuclear industry to sustain employment and economic activity," says Wilson.¹⁰⁵ "The main obstacle to attracting the necessary investment is not the safe disposal of nuclear waste, it is the SNP. Despite Scotland's leading position in developing the skills and technology vital to the future of the nuclear industry, the SNP Government is jeopardising future energy supplies, raising carbon emissions and denying local people employment opportunities by exporting jobs to England".¹⁰⁶ Environment campaigners insist that the proposal for a "capture ready" coal plant is dangerous – it must implement carbon capture technology from the outset.

¹⁰² BBC 11th Nov 2008 <http://news.bbc.co.uk/1/hi/scotland/7721410.stm>

¹⁰³ Scotsman 3rd Dec 2008

<http://news.scotsman.com/latestnews/Flashpoint-as-Calman-tests-SNP.4754392.jp>

¹⁰⁴ Herald 13th Nov 2008

http://www.theherald.co.uk/features/letters/display.var.2467672.0.Legitimate_to_go_for_renewables_n_of_nuclear.php

¹⁰⁵ Herald 22nd Nov 2008

http://www.theherald.co.uk/features/letters/display.var.2469897.0.Scotland_needs_nuclear_power_now_to_secure_supply_and_curb_emissions.php

¹⁰⁶ Herald 25th Nov 2008

19.2 UK's energy minister, Mike O'Brien, joined in what seems to be a campaign of sustained attacks on the Scottish Government's non-nuclear policy. He said Scotland without nuclear power would be forced to rely on England to "keep the lights on", and accused Alex Salmond, of "ducking" the nuclear issue and taking a "punt" on hopes that renewable energy would meet Scotland's future energy needs. Salmond's office responded saying Scotland has the capacity to generate 60GW of power from renewables - 10 times Scotland's peak demand. Far from any energy gap, the challenge is building the infrastructure to export Scotland's electricity surplus.¹⁰⁷

19.3 French reactor builder, Areva, says Scotland will be missing a significant opportunity. It wants to open a factory in Britain during the building of the new stations south of the Border. Areva's plans for the UK have a line drawn on the map. North of the Border is only wind power and other renewables. What we are doing in the UK is underneath the line. Over the next few years, Scotland will not have the skills or the training which other countries will provide as they become involved. EDF and Areva will recruit thousands of staff – some in England.¹⁰⁸

19.4 French utility EDF says it has not given up hope of building a second nuclear reactor at Torness within the next 20 years. Bernard Dupraz, director general of production and engineering at EDF says he believes the current anti-nuclear position could change by 2030.¹⁰⁹

19.5 British Energy is attempting to devise new ways of bringing Hunterston B up to full capacity, after a prototype failed to solve a problem with its boilers. At the moment the plant is at 70% capacity as the company attempts to devise a long-term solution to a problem with hairline fractures, known as creep, caused in some of the welding in pipes when the boilers run at high temperatures.¹¹⁰

http://www.theherald.co.uk/features/letters/display.var.2470487.0.SNP_somersaults_on_energy_policy.php

¹⁰⁷ Scotland on Sunday 23rd Nov 2008

<http://scotlandonsunday.scotsman.com/politics?articleid=4722416>

¹⁰⁸ Scotsman 26th Nov 2008 <http://business.scotsman.com/energyutilities/Scotland-set-to-lose-out.4730588.jp>

¹⁰⁹ Scotsman 27th Nov 2008

<http://business.scotsman.com/energyutilities/Nuclear-Scotland--is-not.4735950.jp>

¹¹⁰ Herald 19th Nov 2008

http://www.theherald.co.uk/business/news/display.var.2469035.0.British_Energy_bids_to_restore_full_capacity.php