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1.0 Future of Nuclear Power

1.1 Companies operating new nuclear power stations will have their costs for decommissioning and waste disposal capped, the government said as it published its long-awaited white paper on nuclear power. The commitment is designed to reassure investors in new reactors that they will not face an unlimited liability if those costs soar far beyond levels currently expected, but the promise to taxpayers not to subsidise new reactors appears to have fallen by the wayside. John Hutton, business secretary, promised the government would “take the active steps necessary to facilitate” new reactors.

1.2 Tim Stone, the government’s adviser on the nuclear industry, said the significance of the statement and the white paper was that they took away the political risk from investment in nuclear projects. “Up until today, you could not have gone to a credit committee and said, ‘Can we put money into this?’ in a million years.”

1.3 Hutton insisted there were no subsidies but the small print of the white paper suggested concessions to private companies who want to build new stations. The Government said companies would have to "meet the full costs of decommissioning and their full share of waste management costs", but the public purse could ultimately be used for all decommissioning of new plants and waste disposal. Ministers are looking at putting a ceiling on the price private firms will have to pay for dismantling reactors at the end of their life, reducing companies' risks and making it cheaper for them to borrow. Greenpeace accused the government of providing covert subsidies. The New Economics Foundation accused them of "fixing the market". Other hidden subsidies not included in the white paper could be the cost of adapting transmission lines from any new plants which are expected to be considerably larger than existing plants. Security and transporting waste fuel which can run into millions of pounds a year would also come from the public purse.[1]

1.4 Several important issues remain unresolved. The government will not make its selection of suitable sites for reactors until the end of next year, and still has to make a decision on the location of its proposed national nuclear waste repository. Energy companies are also concerned the government’s planning reforms may run into political difficulties and there may not be enough certainty about the future price of carbon dioxide emissions in the European Union’s emissions trading scheme.[2]

1.5 New reactors could be delayed because of an acute shortage of nuclear safety inspectors. As many as a hundred new inspectors will have to be hired over the next four years in order to assess new reactor designs and to keep checking existing nuclear plants. But if the recruitment campaign fails, timetables would be prone to slippage, according to trade unions and the government’s Nuclear Installations Inspectorate.[3]

1.6 The government is undertaking a number of steps aimed at facilitating the development of new reactors. In a broad timetable set out in the Nuclear White Paper, it plans to complete the Generic Design Assessment by 2012 and the planning process by 2013 so that construction can start by 2014. A key area of reform is the planning process, which is being overhauled to be faster. The current Planning Bill aims to establish a new

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[1] Guardian 11th Jan 2008
http://www.guardian.co.uk/environment/2008/jan/11/nuclearpower.energy1
[2] FT 11th Jan 2008 http://www.ft.com/cms/s/0/e82ce050-bfbc-11dc-8052-0000779fd2ac.html
[3] Sunday Herald 13 January 2008
http://www.robedwards.com/2008/01/shortage-of-saf.html

single consent regime, while the government plans to carry out a Strategic Siting Assessment (SSA) to identify possible sites for new nuclear plants. In March this year the government plans a consultation on draft SSA criteria. This would be used to rule out areas of the country in which there are no suitable sites and establish the framework for assessing the suitability of proposed sites. [4]

1.7 The nuclear consultation group - a group of scientists, energy economists and academics has condemned as undemocratic and possibly illegal the government's plans. They warn that questions about the risks from radiation, disposal of nuclear waste and vulnerability to a terrorist attack have not been addressed - even though the government was ordered last February to repeat the public consultation by a high court judge.[5]

1.8 In an 87-page report,[6] the group says: "Significant issues were not consulted on in any meaningful way or resolved in practice. It has left the government vulnerable to legal challenge and may lead to hostility and mistrust of any future energy decision." Key questions were designed to provide particular and limited answers. Issues such as uncertainty about nuclear fuel supply, radiation risk and health effects "were not consulted on in any meaningful way". If the Government is so sure of the nuclear case, one wonders why it does not consult properly on the matter.

1.9 Greenpeace, whose challenge to the energy review was upheld last year, raised the prospect of another legal challenge, but said it could take months to decide. The group has lodged a complaint with the Market Research Standards Board (MRSB), over the organisation that ran the Government's consultation events, claiming lack of objectivity in the consultation. The MRSB is expected to make a ruling on the complaint by April.[7]

1.10 The Independent on Sunday called ministers' arguments as flawed as their economics. We are told we need the atom to avoid dangerous dependency on overseas energy especially Russian gas. But analysis done for the Government's energy White Paper shows that by 2020 the earliest any new reactor could come online gas supplies will be more, not less secure, coming from a diversity of countries. And as most gas is used in industrial processes and heating homes, nuclear power which produces only electricity can do little to replace it. We are told that it is a major answer to climate change, but even building 10 reactors would only save a small percentage of carbon dioxide emissions. Indeed, if the Government really wants to tackle the security and climate issues it should dramatically step up its lamentable efforts at saving energy.[8]

1.11 Tom Burke, former advisor to several Tory Environment Ministers, agrees. He says nuclear power can do nothing to improve Britain's energy security or help it meet the urgent challenge of climate change.[9] Peter Tatchell, who is now the Green Party's candidate for Oxford East, says the nuclear decision sums up the Government's ignorance, short-sightedness and lack of imagination. There are other - cheaper, faster and safer - ways to remedy the problems. [10]

1.12 The danger is that politicians have decided they have taken the "hard decision" and nuclear is "the answer". But it deceives the public and delays yet further the necessary great national energy-efficiency drive that politicians continue to avoid.[11] Greenpeace reiterated its concern that genuine energy solutions to

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[4] Modern Power Systems 17th January 2008
http://www.modernpowersystems.com/story.asp?sectioncode=131&storyCode=2048395
[5] Guardian 4th Jan 2008
http://www.guardian.co.uk/environment/2008/jan/04/nuclearpower.greenpolitics?gusrc=rss&feed=19
[6] Nuclear Consultation: Public Trust in Government, Nuclear Consultation Group, January 2008.
http://www.nuclearconsult.com/NUCLEAR_REPORT_COMPLETE.pdf
[7] FT 5th January 2008 http://www.ft.com/cms/s/0/42707144-bb30-11dc-9fbc-0000779fd2ac.html?nclick_check=1
[8] Independent on Sunday 6th Jan 2008
http://comment.independent.co.uk/leading_articles/article3312758.ece
See also the Greenpeace "Case Against Nuclear Power", January 2008
http://www.greenpeace.org.uk/files/pdfs/nuclear/nuclear-power-briefing.pdf
[9] Decoding Nuclear Nonsense – Part 2, Tom Burke, E3G 7th Jan 2008
http://www.e3g.org/index.php/programmes/climate-articles/decoding-nuclear-nonsense-ii-the-real-evidence/P0/
[10] Guardian 9th January 2008
http://commentisfree.guardian.co.uk/peter_tatchell/2008/01/gordons_nuclear_con_trick.html
[11] Guardian 11th Jan 2008

climate change, such as cleaner use of fossil fuels, and renewables, 'could be strangled of investment just as they are taking off.' Stephen Hale, Director of Green Alliance, agrees: "Nuclear power is a glowing red herring". It can't make a significant contribution to emissions reductions before 2020. "We can't afford to wait for nuclear to fail again."[12] Tony Juniper, Director of Friends of the Earth says nuclear power was not the difficult decision – it was the easy option. A new programme will probably not be delivered, so we'll be left in a worse position.[13]

2.0 Nuclear Finance

2.1 The government states that the financial costs of new reactors must be borne by the private sector - no subsidies will be available. To support this, the new Energy Bill contains clauses to ensure adequate funding provision is made by potential developers of new nuclear power stations for the full costs of decommissioning and their full share of waste management costs. In addition it is starting to scope a new independent advisory body, the Nuclear Liabilities Financing Assurance Board (NLFAB) to provide advice to the government on all aspects of the financial arrangements operators plan to put in place to cover waste management and decommissioning.[14]

2.2 Gordon MacKerron says the Government is supposed to be committed to nuclear power, but it has done nothing to make it more attractive. It has opened up the danger of the country being left with no new reactors, nor any greener alternatives.[15] While the Government has told us for a long time that nuclear is necessary, it has failed to provide the means to deliver it.

2.3 The energy security argument for nuclear power is at best thin. The Government's concerns in this area are that we are becoming over-dependent on foreign sources of oil and gas, and that the risk of a "gap" in electricity generating capacity in 5 to 10 years' time might cause the lights to go out in winter. These worries are exaggerated. More to the point, nuclear power scarcely helps relieve them. Nuclear power cannot help at all with oil dependence (nearly all oil goes into road transport) and only partially helps with gas. And as we will be lucky to get any power from new reactors before 2020, it will be too late to help fill any capacity gap.[16] The Combined Heat and Power Association (CHPA) points out that to deliver security of supply and carbon savings a policy on heat remains a "glaring omission". The fact that 60 per cent of the gas consumed in the UK is used for heating means that construction of new nuclear plants would have little impact on dependence on imported natural gas.

2.4 None of the four reactor designs that might get built in the UK has been completed anywhere in the world – for three of them, construction has not yet even started.
The first European Pressurised Water Reactor (or EPR) is two years into construction in Finland and already two years late and about 50 per cent over budget. None of the designs has yet won UK safety approval, a process that could lead to higher costs. The costs of constructing reactors are heavily dependent on the number built. Building eight to 10 reactors would reduce unit costs but involve huge inflexibility and dominate the market, while a single unit would have low market impact but involve much higher unit costs. The answer to the question of what it will cost to build nuclear power stations is: we don't know.

2.5 A company planning to spend £1bn or more on a nuclear plant needs some assurance about the minimum electricity price achievable 12 to 25 years into the future. In a UK-style liberalised market, this is

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http://www.guardian.co.uk/commentisfree/2008/jan/11/uk.comment
[12] New Consumer 11th Jan 2008
http://www.newconsumer.com/news/item/negative_reactions_to_nuclear_white_paper/
[13] Guardian 10th Jan 2008
http://commentisfree.guardian.co.uk/tony_juniper/2008/01/kneejerk_reactors.html
[14] Modern Power Systems 17th January 2008
http://www.modernpowersystems.com/story.asp?sectioncode=131&storyCode=2048395
[15] Independent on Sunday 13th Jan 2008
http://www.independent.co.uk/opinion/commentators/gordon-mackerron-this-way-is-more-likely-to-leave-us-in-the-dark-770005.html
[16] Can New Nuclear Power Strengthen Energy Security? By Dr Jim Watson, Sussex Energy Group, Dec 2007
http://www.sussex.ac.uk/sussexenergygroup/documents/security_brief_webonly.pdf

impossible. It might help if the carbon price could be supported, and a floor price for carbon guaranteed. The industry had hoped for progress on this but none was forthcoming. Overall then, the financial risks of private nuclear investment were not reduced by the January announcement. There is a real risk we may get the worst of both worlds, where nuclear investment stalls under a risky investment climate while markets hold back from other investment in the expectation that nuclear is just around the corner. Then we really might have a capacity gap and an even bigger risk of the lights going out. [17]

2.6 Wall Street has signalled it is unwilling to underwrite nuclear projects that are not covered by government loan guarantees. Last year, six major investment banks, including Goldman Sachs and Morgan Stanley, told the U.S. Department of Energy they believed the technology risks, combined with high capital costs and long construction schedules, "will make lenders unwilling at present to extend long-term credit."[18]

2.7 Dieter Helm, Professor of Energy Policy at New College, Oxford appears to agree with MacKerron. He says the Government's nuclear energy policy is fundamentally flawed because it relies on the "fiction" that a new generation of reactors can be built without state support. No country has developed nuclear power in a liberalised market. He believes the Government will be forced to rig the market if it wants to ensure that new reactors built. Dr Helm also called for the Government to strip British Energy of the sites and for these to be auctioned to bigger utilities. Dr Helm said that on the issue of waste, the White Paper had effectively proposed a system in which utilities would pay for the State to absorb the risks of handling nuclear waste in exchange for payments into a fund: "It's a fixed-price contract for the Government to take the waste. The Government absorbs the final-end risk."[19]

3.8 But, according to Ernst & Young Each the companies planning new reactors have enough money to finance the £2bn projects without help from government or banks. Utilities could build several plants without external funding. Once the first plants are built, the big utilities may take out loans secured against them to build as many reactors as possible elsewhere as the global nuclear revival gains pace.[20] On the other hand, New Civil Engineer warns that private firms will refuse to build and operate new nuclear power stations in the UK unless they are offered guaranteed returns. [21]

3.9 The prospects of a nuclear power renaissance in Britain are zero and the global industry is in steep decline, according to an independent consultants' study, the World Nuclear Industry Status Report 2007. Mycle Schneider, the report's co-author, said the government's plans were seriously jeopardised by an acute shortage of skilled engineers and manufacturing bottlenecks.[22] There are 439 nuclear reactors operating in the world, but many are reaching the end of the life. By 2015 a new one would have to be ordered every six weeks just to maintain current numbers and one every 18 days after that.Top of Form Bottom of Form

3.0 Nuclear Companies

3.1 EDF Energy says it is ready to invest in four new nuclear power plants in the UK and hopes the first will be on-line by the end of 2017, but has highlighted key issues that must be resolved before development starts. It has stressed that a framework for investment needs to be put in place that resolves a number of outstanding issues, including planning, site availability, carbon price and provisions for waste management.[23]

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[17] The Economics of Nuclear Power: Has Government Got it Right? By Gordon MacKerron, Sussex Energy Group, Dec 2007 http://www.sussex.ac.uk/sussexenergygroup/documents/economics_brief_webonly.pdf
[18] Globe and Mail 13th Feb 2008
http://www.theglobeandmail.com/servlet/story/RTGAM.20080213.wrcandu0213/BNStory/energy/home
[19] Times 28th January 2008
http://business.timesonline.co.uk/tol/business/industry_sectors/utilities/article3261571.ece
[20] Reuters 17th Jan 2008
http://uk.reuters.com/article/domesticNews/idUKL1739578620080117?rpc=401&pageNumber=1&virtualBrandChannel=0
[21] New Civil Engineer 16th Jan 2008.
http://www.nce.co.uk/news/2008/01/operators_to_snub_nuclear_power_programme_plans.html
[22] Guardian 22nd Nov 2007
http://www.guardian.co.uk/business/2007/nov/22/nuclearindustry
[23] Modern Power Systems 17th January 2008
http://www.modernpowersystems.com/story.asp?sectioncode=131&storyCode=2048395

A stable investment environment for nuclear capacity requires a long-term stable carbon price but the current EU emissions trading scheme is insufficiently robust. The Conservatives have suggested the introduction of a carbon tax but the government says it will work with its EU partners to strengthen the ETS to provide investor confidence.

3.2 EDF Energy is even considering Sellafield as a possible site for a new reactor. Amec, the engineering group, is likely to work with EDF if Sellafield is chosen after a round of site investigations, which includes a government strategic site study. Amec has been setting out the case for new nuclear reactors at Sellafield in Cumbria to a group of council, regional development and business interests to win round public opinion. [24]

3.3 British Energy, which owns eight sites next to existing licensed nuclear sites, is currently undertaking an assessment of these. It has also secured transmission connection agreements with National Grid from 2016 onwards for four key sites in southern England and is currently working to establish potential partnerships for the development of new nuclear capacity.

3.4 Eon says it is interested in participating in "more than one" new nuclear power station in Britain, but wind power will be the main focus of its £1 billion investment programme over the next five years.[25]

3.5 Contractors are already in talks with potential partners to consider creating PFI-style consortia to deliver the next generation of reactors. Balfour Beatty says banks will be nervous about funding because of the construction risks, but a consortium that has a contractor on board putting in equity and a commitment to deliver the construction phase on time and to budget makes this a much more attractive proposition.[26]

3.6 Iberdrola, owners of Scottish Power, is negotiating a 50:50 joint venture with British Energy to build a 1,600 megawatt nuclear power plant in southern England. Areva, the French energy company, said that it wanted to build six plants, with the first to be operational by the end of 2017. Four would be in partnership with EDF, and the other two with different partners. Centrica, the owner of British Gas, also expressed an interest and RWE, which owns npower in Britain, is likely to want to be involved. Other nuclear plant builders, such as GE-Hitachi, Toshiba-Westinghouse, and utilities such as Scottish and Southern Energy and Vattenfall, of Sweden, are also interested.[27]

4.0 Nuclear is not the answer to climate change

4.1 The climate change case for going nuclear simply does not stack up, according to *The Independent*. 10 new reactors would be needed to cut the UK's carbon emissions by just 4 per cent; and only then after 2025. Meanwhile, the nuclear push threatens to divert investment from renewables such as wind and wave, as well as decentralised power generation schemes. It will also distract official attention from hugely neglected energy efficiency. Every pound invested in conservation saves seven times as much carbon dioxide as one spent on nuclear power. This nuclear dash is not the behaviour of a Government with a firm grip on either energy policy or the challenge of climate change.[28]

4.2 Building more nuclear power plants to reduce global warming emissions is not the way to fight global climate change, according to Finland's prime minister. He says reducing energy consumption, especially

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[24] Times 21st Jan 2008
http://business.timesonline.co.uk/tol/business/industry_sectors/utilities/article3221932.ece
[25] MSN 22nd Jan 2008
http://news.uk.msn.com/Article.aspx?cp-documentid=7321092
[26] Contract Journal 23rd January 2008
http://www.contractjournal.com/Articles/2008/01/23/57436/contractors-eye-pfi-route-for-nuclear-plant-delivery.html
[27] Times 15th Jan 2008
http://business.timesonline.co.uk/tol/business/industry_sectors/utilities/article3187636.ece
[28] Independent 11th Jan 2008.
http://www.independent.co.uk/opinion/leading-articles/leading-article-the-case-does-not-stack-up-769460.html

from automobiles, would do more to fight climate change.[29] As the first new reactor to be built in Western Europe since Chernobyl, the world has been watching the construction of Olkiluoto 3. Finland's experience does not bode well. It has been hit by a slew of safety concerns, building blunders, spiralling costs and chronic delays. The 1,600MW-capacity reactor, which was meant to be producing energy by 2009, is now around two years behind schedule. It is more than E1bn over budget, without taking into account the cost of the lost electricity production time which, rough estimates suggest, could run to E600m.[30]

4.3 One member of Renewables Advisory Board warned, privately, after the February 2003 White Paper that DTI officials would deliberately go slowly on renewables to keep nuclear alive, according to Solar Century Chief Executive, Jeremy Leggett. The slow-motion UK treatment of renewables during the last five years, while renewables markets abroad have grown explosively, now begins to make sense.[31] Overseas markets have grown because of the subsidy policies of some governments or their policy equivalents such as feed-in laws. Mass markets are now inevitable. The question is whether UK plc will be a player, with strong domestic industries and domestic job creation, or miss out, having to import everything and support overseas jobs. As things stand we are set to miss out. Costs for renewables are generally falling, just as the costs of traditional power are rising. When the two trends cross for a particular technology, in a particular market, a mass market will emerge, and dynamic new industries with it. The timing for this is measured in years, not decades. Renewables do need subsidies, but only for a limited duration. Nuclear needs subsidies of unlimited duration, and unknown magnitude, and is followed by a stream of unsolved problems.[32]

4.4 Former Environment Minister, Michael Meacher, says the EU announcement that Britain has to meet a mandatory target to produce at least 15% of its energy (as opposed to just electricity) from renewable sources by 2020, means we will not need any nuclear power stations.[33]

4.5 Britain installed about 270 domestic solar photovoltaic (PV) systems in 2007, compared with 130,000 in Germany. But instead of putting Britain at the forefront of this technology ministers appear to be doing all they can to kill it off. FoE is calling for an amendment to the Energy Bill to ensure households and businesses iinstalling microgeneration and export it to the national grid are paid a premium rate, or feed-in tariff.[34] The US Government's Solar America Initiative aims to bring down the cost of solar energy to make it competitive with conventional electricity sources by 2015.[35] This mean solar electricity may well cost about the same or less than nuclear electricity by 2015, before any new reactors have come on line. So there is a real risk new reactors will be economically obsolete before they are built.[36]

4.6 With old people dying in the UK at the rate of around eight per hour from cold related illnesses during the winter months, commentators are beginning to ask how a nuclear renaissance can help the Government meet its commitment to eradicate fuel poverty. Sir Jonathon Porritt, the chairman of the Sustainable Development Commission (SDC), says it is "utterly scandalous" the government has announced it is dropping its fuel poverty targets. It has failed to apply itself to energy efficiency.[37] In 2006 the German government began a 20-year project to fit five per cent per year of pre-1978 housing stock to a modern low

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[29] Reuters 14th Jan 2008. http://www.reuters.com/article/environmentNews/idUSN1442651320080114
[30] Independent 16th Jan 2008
http://www.independent.co.uk/news/science/power-failure-what-britain-should-learn-from-finlands-nuclear-saga-770474.html
[31] Guardian 3rd Jan 2008 http://politics.guardian.co.uk/comment/story/0,,2234463,00.html?gusrc=rss&feed=19
[32] Guardian 7th Jan 2008
http://commentisfree.guardian.co.uk/jeremy_leggett/2008/01/which_would_you_rather_subsidi.html
[33] Guardian 24th Jan 2008
http://commentisfree.guardian.co.uk/michael_meacher/2008/01/making_space_for_renewal.html
[34] Guardian 15th Feb 2008
http://www.guardian.co.uk/environment/2008/feb/15/renewableenergy.solarpower
[35] USDoE Press Release 8th March 2007 http://www.energy.gov/news/4855.htm
[36] Science for Democratic Action, January 2008. Vol15 No.2 http://www.ieer.org/sdafiles/15-2.pdf
[37] Guardian 16th January 2008
http://www.guardian.co.uk/environment/2008/jan/16/nuclearpower.energy2?gusrc=rss&feed=environment

carbon standard. So by 2026 all German homes will be up to a decent standard of energy efficiency.[38] From 2016 all new homes in Britain will have to be zero carbon. So by 2026 we will have seven per cent of the housing stock at a decent standard, reaching 100 per cent in 2166, 140 years after Germany.[39]

4.7 Andrew Warren, Director of the Association for the Conservation of Energy, reminds us the 2003 White Paper promised a "step change" in energy efficiency, and that announcing new reactors would guarantee we don't make the necessary investments. So the question remains: why was there such a 180 degree change in the agreed answer to the same problem? He says it is certain key individuals at BERR with strong links to the nuclear industry. Initially the main authors of the 2003 policy were in charge of delivery. But within months, they had been moved on, replaced by others more sympathetic to the conventional policy line. And there is still no sign of that famous "step change in energy efficiency" promised.[40]

4.8 Soon after Labour came to power, the government set a legally binding target to eradicate all fuel poverty among vulnerable households in England by 2010, and a legal target to eradicate all fuel poverty in the UK by 2018. The government has blamed rising wholesale prices for pushing more people into fuel poverty. But last year it cut spending on its Warm Front programme, which provides grants to insulate the homes of people on lower incomes, by nearly a quarter for 2008-11 compared with 2007-08. Peter Lehmann, chairman of the Fuel Poverty Advisory Group, which the Government set up, has criticised its record on fuel poverty, which he labelled 'incomprehensible, unjustifiable and shocking'.[41]

4.9 A new blueprint from Oxford University's Environmental Change Institute shows how it is possible to reduce carbon emissions from the domestic sector by 80% by 2050. Recommendations include financial incentives for householders and legally binding targets for emissions with the housing sector obliged to reduce emissions by 3.8% every year from now until 2050.[42]

4.10 One technology that could deliver sizeable saving is micro combined heat and power (CHP). Domestic Micro CHP systems can replace gas central heating boilers and generate both heat and electricity. These are just beginning to come on to the market now. Unlike nuclear, micro CHP can be installed 1kW at a time, producing power from day one. In terms of capacity, if we replaced all domestic gas boilers (as they reach the end of their useful life) with micro CHP, we could in theory install 1.5 million micro CHP units every year. That is equivalent to 1.5GWe, or not far off the size of one nuclear power station every year. By 2020, we could have the equivalent of twelve reactors powered by micro CHP. And if it didn't work out for some reason, we could just stop installing them; on the other hand, with nuclear you have to commit to the whole £2billion (or more) price tag for a single station and if, after 10 years construction, it doesn't stack up, you have absolutely nothing to show for your money.[43]

4.11 Porritt says what the Government fails to understand is that the more urgent climate change becomes, the less relevant nuclear power is. "Solutions have to be found on waste, cost, and decommissioning. They have not been found on any of those issues. It reveals how poor is the understanding by government of the importance of climate change". The SDC's chief economist, Professor Tim Jackson said the decision to opt for nuclear power was "a blatant failure of moral vision". Porritt says ministers are now putting more effort into encouraging nuclear power than they have devoted to the entire field of renewables over the last 10

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[38] For more details see http://www.bundesregierung.de/Content/DE/Artikel/__Reformprojekte/Energie-Energie-und-Rohstoffeffizienz.html or http://www.kfw-foerderbank.de/DE_Home/Bauen_Wohnen_Energiesparen/Darlehensprogramme_fuer_Wohnimmobilien/Co2-Gebaeudesanierungprogramm_neu/index.jsp (both in German)

[39] Telegraph 14th Feb 2008 http://www.telegraph.co.uk/opinion/main.jhtml?xml=/opinion/2008/01/14/nosplit/dt1401.xml

[40] Telegraph 5th Feb 2008 http://www.telegraph.co.uk/earth/main.jhtml?xml=/earth/2008/02/05/eawarren105.xml

[41] Observer 3rd Feb 2008 http://www.guardian.co.uk/money/2008/feb/03/householdbills.utilities

[42] BBC 27th November 2008. http://news.bbc.co.uk/1/hi/sci/tech/7113165.stm

[43] MicroChap 10th Jan 2008 http://microchp.blogspot.com/2008/01/nuclear-energy-and-micro-chp.html

years. As they see it, this is the only manageable mega-fix available to them, the ultimate get-out-of-jail-free card. But this is a sad and extraordinarily ill-judged illusion.[44]

4.12 Perhaps the worst effect of the UK government's decision is that it could light a beacon for the beleaguered nuclear industry in other parts of Europe, where opposition to the technology remains strong, such as Germany.[45]

5.0 British Energy

5.1 British Energy named four sites in the south of England as the most likely sites for new nuclear construction: Sizewell in Suffolk, Dungeness in Kent, Hinkley in Somerset and Bradwell in Essex. National Grid, which owns the electricity transmission network, has agreed to put in enough additional capacity to connect up new nuclear power stations if they are built at those locations. Lack of grid capacity has been seen as a significant obstacle to new nuclear investment. [46]

5.2 British Energy, has published a report[47] claiming to show new reactors in the UK could be protected from flooding and sea-level rise caused by climate change. It concluded "that all our sites can be sustained over the next 100 years."[48] But British Energy admits that "much work remains to be done to confirm the suitability of these sites against modern standards". All they can suggest that might work is "engineering measures" to protect coast lines and "setting back" new reactors a bit further away from the sea, which is to say the least a bit vague. This is contradicted by the Middlesex University Flood Hazard Research Centre report which showed the predicted sea level rises will have a devastating effect on these sites.[49]

6.0 Recent Developments

6.1 The new chair of the re-vamped Committee on Radioactive Waste Management (CoRWM), Professor Robert Pickard, says the government must look again at waste from new reactors. It must commission a new study to find storage solutions for waste from new nuclear build. He re-iterates that the first CoRWM committee's report made recommendations about deep geological disposal, but this applies to legacy waste only. According to Professor Pickard, building an effective geological storage site could take up to 120 years, with 10 years to find a suitable site. Pickard believes that communities who may volunteer their area for the
storage of existing waste may not be so keen on future waste. If the government presses ahead in producing new waste, communities willing to have existing waste may be put-off if the door is left open for 100 years. "Plans for long-term interim storage need to be underway at the same time. It is a mistake to think that the problem is solved," he said.[50]

6.2 The Government published its Summary and Analysis of Responses of responses to its consultation on the way ahead for geological disposal on 10th January – the same day as the Nuclear White Paper. It said the responses indicated support for the proposals set out for securing the geological disposal of higher activity radioactive wastes and support for the concept of voluntarism. All consultation comments will be considered

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[44] Independent 4th Feb 2008
http://www.independent.co.uk/news/people/you-ask-the-questions-sir-jonathon-porritt-777696.html
[45] International Herald Tribune 8th Jan 2008 http://www.iht.com/articles/2008/01/08/business/nuke.php
[46] Bloomberg 27th Nov 2007
http://www.bloomberg.com/apps/news?pid=20601072&sid=aFUOcxEGkJsw&refer=energy
[47] Climate Change and Replacement Nuclear Build, British Energy, November 2007.
http://www.british-energy.com/documents/Climate_Change_and_replacement_nuclear_build.pdf
[48] Guardian 28th November 2008
http://www.guardian.co.uk/business/2007/nov/28/britishenergygroupbusiness.nuclearindustry
[49] Greenpeace website 28th Nov 2007
http://www.greenpeace.org.uk/blog/nuclear/british-energy-reckons-nuclear-power-stations-are-safe-from-flooding-20071128
[50] New Civil Engineer 15th Jan 2008
http://www.nce.co.uk/news/2008/01/government_must_move_on_geological_nuclear_storage_says_corwm_chair.html

in developing the details of the next stages of the implementation process. Those next stages will be set out in a White Paper to be published later this year.[51]

6.3 According to NuLeAF, the White Paper, expected in the Spring, will be accompanied by the letter inviting 'communities' - i.e. County or Unitary Authorities - to volunteer. Whether or not to volunteer will be determined at the County Council or Unitary Authority level with engagement programmes employed to 'inform the decision'

6.4 What to do with the waste remains one of the key unanswered questions regarding the go-ahead for new reactors.[52] Tim Jackson of the Sustainable Development Commission says the government is flouting expert advice from CoRWM which made clear its recommendations did not suggest a green light for new nuclear build. "The political and ethical issues raised by the creation of more wastes are quite different from those relating to committed - and therefore unavoidable - wastes," the committee argued. Jackson says “we have an overriding moral obligation to mitigate the risk to future generations”.[53]

6.5 Pete Wilkinson, a former CoRWM member, and spokesman for the newly established organisation Nuclear Waste Advisory Associates, said: “There is clearly no currently demonstrable or acceptable scientific, technical or ethical solution to nuclear waste management. Years of intensified research and development and an urgent, independent security review of storage must take place as minimum requirements to give an announcement on new nuclear build even the vestige of legitimacy.”[54]

6.6 Nuclear chiefs are to give Britons millions of pounds of taxpayers' money to accept the dumping of radioactive waste near their home. The operators of the controversial Sellafield nuclear complex have agreed to pay local people in Cumbria some £75m for expanding the only national dump for low-level nuclear waste (See below), in a move that has surprised leading experts. The unprecedented deal – which is being called a "bribe" – is widely thought to be the precursor of a payment of at least £1bn to the community that agrees to take a deep repository for higher activity waste.[55]

6.7 NDA officials say there is no reason why West Cumbria should not be a frontrunner in the search to find a nuclear waste disposal site, despite the fact that previous research proved the area was unsuitable because of its rock formations.[56]

7.0 Radiation and Health

7.1 Children living within three miles of nuclear power stations are more than twice as likely to get leukaemia as those who live further away, scientists say. A large study commissioned by the German Federal Office for Radiation Protection (BFS) found clusters of cases of the blood or bone marrow cancer among children aged under five-years-old living near 16 power stations in the country.[57]

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[51] The Summary and Analysis of Responses is available on Defra's website at:
http://www.defra.gov.uk/corporate/consult/radwaste-framework/index.htm
[52] FT 11th Jan 2008
http://www.ft.com/cms/s/0/72227cfa-bfd3-11dc-8052-0000779fd2ac.html
[53] Guardian 16th Jan 2008
http://www.guardian.co.uk/environment/2008/jan/16/nuclearpower.energy
[54] East Anglian Daily Times 11th Jan 2008
http://www.eadt.co.uk/search/story.aspx?brand=EADOnline&category=News&itemid=IPED10%20Jan%202008%2022:41:33:950&tBrand=EADOnline&tCategory=search
[55] Independent on Sunday 6th Jan 2008
http://news.independent.co.uk/uk/politics/article3312836.ece
Sunday Times 6th Jan 2008
http://www.timesonline.co.uk/tol/news/environment/article3137740.ece
[56] Carlisle News and Star 11th Jan 2008
http://www.newsandstar.co.uk/news/viewarticle.aspx?id=585765
[57] Telegraph 11th Jan 2008
http://www.telegraph.co.uk/earth/main.jhtml?xml=/earth/2008/01/10/scileuk110.xml

8.0 Sellafield

8.1 THORP has plunged Sellafield into another crisis after vital equipment broke down just as it was recovering from an accident that shut it for two years. It was only just starting its second job since the shutdown. Sellafield's problems have been compounded by a Nuclear Installations Inspectorate report which shows facilities for handling nuclear waste are a shambles. After reprocessing, highly dangerous radioactive liquid waste is concentrated through evaporation and stored above ground in 21 giant steel tanks before being "vitrified" bound into glass for disposal. But the report shows that every stage of this process is in crisis. Two of the three evaporators have been shut due to safety problems, and there are continuing difficulties" with vitrification.The most alarming issue is the failure of equipment needed to cool the waste, which could, at worst, lead to an explosion, scattering radioactivity across much of the country. John Large said: "The Government wants to build new nuclear power stations, but the backend of the process, which deals with their waste, is a shambles."[58]

8.2 The Government published its response to the consultation on so-called 'virtual reprocessing' – where nuclear waste is returned to Sellafield reprocessing customers before their fuel has actually been processed in the Thorp reprocessing plant at Sellafield. Not surprisingly the government believes advanced allocation "offers a sensible approach to managing overseas spent fuel awaiting reprocessing".[59]

8.3 The Government took the opportunity, in the Nuclear White Paper, to make clear that the fuel from any new reactors is unlikely to be reprocessed.[60] But the Sellafield trade unions have started a campaign for a new reprocessing plant to be built at Sellafield and are campaigning for spent nuclear fuel from the proposed new reactors to be reprocessed; for the possibility of securing reprocessing contracts from abroad to be kept open; and for existing stocks of UK plutonium at Sellafield to be converted into MoX fuel for use in new reactors.[61] The Unions say THORP will complete its existing contracts around 2018 and Magnox reprocessing will end around 2016, so 10,000 jobs will disappear in Cumbria. Sellafield GMB Convenor, Peter Kane, says he knows the Irish, Scandinavians and anti-nukes "will go berserk".[62]

9.0 Low-level Waste

9.1 Cumbria County Council has granted planning permission for a new vault to store low level radioactive waste (LLW) near Drigg, thus unlocking millions of pounds in compensation for Copeland. The county council has added the proviso that it only for "storage with retrieval" rather than simply disposal. The Drigg site has stored similar waste for the last 50 years, but capacity was due to run out in the next year or so, meaning that a new 110,000 cubic metre vault is needed. In December, plans were announced for a new Community Fund to recognise the service made by the people of Copeland in hosting the LLW repository. Following negotiations between Cumbria County Council, Copeland Borough Council, Jamie Reed MP and the Nuclear Decommissioning Authority, the government announced it would pay £1.5m a year into the fund for every year that the repository is operating; in addition to an initial endowment of £10m, which would launch the fund.[63]

9.2 The village of Drigg, with just 300 people on its electoral roll, will have £50,000 'ring-fenced' each year

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[58] Independent on Sunday 3rd Feb 2008
http://www.independent.co.uk/environment/green-living/shambolic-sellafield-in-crisis-again-after-damning-safety-report-777551.html

[59] Proposal on how to manage overseas spent nuclear fuel awaiting processing at Sellafield: Government response to the consultation, BERR November 2007. http://www.berr.gov.uk/files/file42361.pdf

[60] Independent on Sunday 13th Jan 2008
http://environment.independent.co.uk/green_living/article3333865.ece

[61] The GMB Press Release (18th Jan 2008)
http://www.gmb.org.uk/Templates/Internal.asp?NodeID=96494

[62] Whitehaven News 24th Jan 2008
http://www.whitehaven-news.co.uk/news/viewarticle.aspx?id=589616
Whitehaven News 24th Jan 2008 http://www.whitehaven-news.co.uk/news/viewarticle.aspx?id=589575

[63] Whitehaven News 24th Jan 2008 http://www.whitehaven-news.co.uk/news/viewarticle.aspx?id=589615

just for the village. Observers expect the deal to be the precursor to a similar offer for any highly radioactive nuclear waste repository. It now remains to be seen whether the repository will be the national low-level waste site. It remains unclear, for example, whether Scottish waste will be destined for the site.[64]

9.3 John Jennings, chairman of Drigg Parish Council, said the village has got too small a proportion of the total pot for "the inconvenience of hosting the site" for the past 50 years. "We're not greedy," he said. "We just want fair recognition … People will benefit who don't even know Drigg is a village, let alone a nuclear dump." Marjorie Higham, a former local councillor, agreed. Calling the deal "bribery and corruption", she said it would benefit other areas. "It's like having the trouble in one place and the money going to another," she said.[65]

9.4 The Swedish company, Studsvik, has obtained all the necessary licenses to construct and operate its proposed radioactive metal recycling plant near Sellafield. Permission from the Nuclear Installations Inspectorate marks the first of its kind in over 20 years but has gained little publicity. Studsvik says that from the outset, the plant will integrate its operations with Studsvik's metal-melting facilities in Sweden. The firm plans to use the plant to process low-level radioactive metal from operation and decommissioning of UK nuclear plants. The metal will then be sold into the UK recycled metal market for industrial use. The remaining radioactive waste will be packed and disposed of in the low-level waste repository near Drigg. According to Studsvik, there are 500,000t of contaminated scrap metal in the UK that can be treated, recycled and reused.[66]

10.0 Nuclear Decommissioning Authority

10.1 The cost of decommissioning ageing nuclear power sites has risen "rapidly" in the past few years by £12bn to £73bn, according to the National Audit Office (NAO) which said costs were rising, even for the most imminent work. NAO criticise the "stop and start" programmes caused by the authority running out of cash, saying delays in clearance work will make it even more expensive to clean up sites.[67]

10.2 The report discloses that five sites that could be frontrunners for new power stations have suffered big cuts in their decommissioning budgets in the last year. They are Bradwell in Essex, which faced a 39% cut from £51.5m to £31.2m; Dungeness, Kent, which faced a 25% cut from £56m to £42m; Hinkley Point in Somerset, a 21% cut from £45.8m to £36m; Berkeley in Gloucestershire, a 19% cut from £57m to £46m; and Sizewell A, Suffolk, a 17% cut from £47m to £39m.

10.3 Work on a new £8m nuclear waste store at Hinkley Point was halted just after the base for the site had been prepared. The suspension of work will cost another £400,000 in laying off workers, compensating the contractor and restarting the project later. The authority had however to spend more at Dounreay in Scotland where a 7.7% increase was allocated to handle unexpected costs - the bill rose from £139.4m to £150.1m. Nor was all the work carried out properly. At Dounreay the authority withheld some £2m because of a failure to meet safety standards after there was a spillage of contaminated cement from the plant's works. The cement works was closed and is due to reopen later this year following a £1m health and safety programme.

10.4 Greenpeace called the NAO report a “damning assessment”. With the NDA now responsible for disposing of the UK's stockpile of legacy wastes, currently estimated to cost £10-20bn, questionmarks must remain over how much it might cost to dispose of new build wastes. The NDA's recent and woefully inadequate cost estimates for nuclear waste management won't provide any comfort to the taxpayer or

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[64] Whitehaven News 20th Dec 2007
http://www.whitehaven-news.co.uk/news/viewarticle.aspx?id=576295
[65] Independent on Sunday 6th Jan 2008
http://news.independent.co.uk/uk/politics/article3312835.ece
[66] Nuclear Engineering International 13th Feb 2008
http://www.neimagazine.com/story.asp?sectioncode=132&storyCode=2048706
[67] National Audit Office Press Release 30th Jan 2008
http://www.nao.org.uk/pn/07-08/0708238.htm
Guardian 30th Jan 2008
http://www.guardian.co.uk/environment/2008/jan/30/nuclearpower.energy?gusrc=rss&feed=11

provide any confidence in their waste management strategy. And remember - the same legislation that established the NDA also contains clauses which allow the government to direct the authority to take over managing and financing new build wastes.[68]

11.0 Nuclear Security

11.1 A NUCLEAR attack by terrorists is inevitable and will happen soon, a senior Scottish police officer has warned. Ian Dickinson, who leads the police response to chemical, biological and nuclear threats in Scotland, has painted the bleakest picture yet of the dangers the world now faces. Efforts to prevent terrorist groups from obtaining materials that could be made into radioactive dirty bombs - or even crude nuclear explosives - are bound to fail, he said. [69]

11.2 BRITISH Energy has been accused of "irresponsible" conduct over its refusal to disclose full details of the risk to the public from the storage of highly radioactive nuclear waste at the Sizewell B power station. The company has provided some background information but claims details must remain confidential to protect the safety and security of the plant. The criticism has been voiced by Pete Wilkinson, an independent environmental consultant who was a member of a Government-appointed committee on the disposal of radioactive waste. Sizewell B, unlike other UK reactors, does not send its waste to Sellafield for reprocessing, so has a waste management system which would be similar to any new reactors built. Wilkinson says it is "entirely unacceptable for a privately owned company to put people at risk for the financial benefit of its shareholders while not being prepared to discuss the risk in a coherent or sensible manner".[70]

12.0 Scottish News (New Reactors)

12.1 The Scottish Government was attacked for welcoming the announcement that Hunterston B is to have its life extended for five years to 2016. The Liberal Democrats accused the Scottish Government of "flip-flopping" over the morality of nuclear power, while the Scottish Greens said the move was "dangerous, unsustainable and uneconomic". The Labour-controlled Scotland Office attacked the SNP over its opposition to new nuclear power stations being built, saying it now had to explain how Scotland could live without this "reliable, low-carbon energy source". [71]

12.2 The Scottish Government used the period in the run up to the publication of the UK Government's Nuclear White Paper to reassert its total opposition to nuclear power claiming the argument for a new generation of stations was "totally redundant" given the opportunities for renewables, clean fossil fuel and carbon storage in Scotland.[72]

12.3 The Secretary of State for Scotland, Des Browne, launched a stinging attack on the Scottish government over its steadfast opposition to new reactors. He said: "Knee-jerk opposition to nuclear from the SNP shows political immaturity. The question the minority SNP Government has to answer is: how would it fill the energy gap that will be left behind when the current generation of Scottish nuclear plants closes?"[73] British Energy chief executive Bill Coley later lambasted the Scottish Government's "contradictory" energy policy

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[68] Guardian 30th Jan 2008 http://commentisfree.guardian.co.uk/john_sauven/2008/01/out_of_commission.html

[69] Sunday Herald 25th Nov 2007 http://www.sundayherald.com/news/heraldnews/display.var.1857656.0.0.php

[70] East Anglian Daily Times 12th Feb 2008 http://www.eadt.co.uk/content/eadt/news/story.aspx?brand=EADOnline&category=News&tBrand=EADOnline&tCategory=news&itemid=IPED11%20Feb%202008%2021%3A00%3A53%3A620

[71] Scotsman 12th Dec 2007 http://news.scotsman.com/latestnews/SNP-under-fire-for-flipflop.3589520.jp

[72] Herald 7th Jan 2008 http://www.theherald.co.uk/politics/news/display.var.1945918.0.Scotland_doesnt_need_nor_want_new_nuclear_power_stations.php

[73] Herald 8th Jan 2008 http://www.theherald.co.uk/politics/news/display.var.1948516.0.SNPs_nonnuclear_policy_attacked.php

after it indicated it was minded to refuse permission for the proposed wind farm on Lewis, which British Energy had hoped to build with construction company Amec.[74] While he warned that it would be imprudent for Scotland to turn its back on the possibility of more reactors, he also conceded there was currently no need for them.[75]

12.4 Labour's energy spokesman at Holyrood, Lewis Macdonald, said the SNP's opposition to nuclear was "cheap political posturing", but Nationalists pointed to other members of Wendy Alexander's front-bench team who have publicly opposed a new era for nuclear, including Sarah Boyack and Pauline McNeill.[76]

12.5 Westminster, however, conceded no new nuclear power stations would be built in Scotland. John Swinney, the Scottish Finance Secretary, hailed Scotland's exclusion as a "great success for the Scottish Government" while John Hutton, Westminster's Business Secretary, branded the SNP's anti-nuclear stance a "political stunt".[77]

12.6 THE Scottish Parliament voted narrowly to block any new nuclear power stations MSPs voted by 63 to 58 to reject nuclear power, exactly a week after Gordon Brown, the Prime Minister, committed the UK government to a new generation of such stations. The Holyrood vote was hailed by SNP ministers as signalling a clean, bright future for Scottish energy.[78] iIn the debate, Energy minister Jim Mather raised the possibility of a giant sub-sea cable down the east coast of the UK.[79]

12.7 If a substantial expansion of nuclear power takes place in England and Wales, it could limit the opportunity for Scottish generators to export renewable power. An expansion of nuclear power in the rest of the UK could inhibit the growth of renewable power. The UK and Scotland have already lost the opportunity to lead the world in wind-power manufacturing, but a real commitment to renewable power research and development could lead to the growth of a marine-power and renewable-hydrogen industry and of expertise in integrated mixed renewable energy systems, according to John Mcclatchey, of the Environmental Research Instutute, Thurso. It will be particularly important for Scotland to increase support for research and development as the expansion of nuclear power in the rest of the UK could well divert UK-wide research and development funds away from renewable energy.[80]

12.8 Electricity generated by nuclear power has fallen by a quarter in Scotland because of poor reliability, according to figures released by the Department for Business, Enterprise and Regulatory Reform. Problems at Hunterston B and Torness bolstered the argument that nuclear power is unreliable.[81]

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[74] Herald 7th Feb 2008
http://www.theherald.co.uk/business/news/display.var.2024933.0.British_Energy_chief_blasts_Scots_policy_as_contradictory.php
[75] Scotsman 14th Feb 2008
http://business.scotsman.com/business/39Scotland-must-keep-nuclear-in.3775963.jp
[76] Herald 10th Jan 2008
http://www.theherald.co.uk/politics/news/display.var.1954491.0.SNP_tries_to_exploit_Labours_nuclear_division.php
[77] Herald 11th Jan 2008
http://www.theherald.co.uk/search/display.var.1958033.0.swinney_claims_nuclear_victory.php
[78] Scotsman 18th Jan 2008
http://news.scotsman.com/politics/MSPs-vote-No-to-new.3686900.jp
[79] Edinburgh Evening News 17th Jan 2008
http://news.scotsman.com/politics/Nuclear--power-not-needed.3684529.jp
[80] Scotsman 14th Jan 2008
http://thescotsman.scotsman.com/comment/Alternative-take.3667968.jp
[81] Scotland on Sunday 6th Jan 2008
http://scotlandonsunday.scotsman.com/scitech?articleid=3644524

13.0 Scottish News (Radioactive Waste Management)

13.1 Up to six new stores for more than 300,000 cubic metres of radioactive waste left behind by nuclear power and weapons are being planned for Scotland. Scottish ministers are considering building long term storage facilities at or near to existing nuclear sites. This means that Hunterston, Torness, Dounreay Chapelcross Rosyth and Faslane could all end up with waste stores. The plans have been criticised by the nuclear industry, which wants to carry on disposing of its waste at Drigg near Sellafield. But they have been welcomed by environmental groups as the "least-worst" way of dealing with nuclear waste.[82]

13.2 This policy refers to low-level and medium nuclear waste. As the current system works there is no high-level waste in Scotland – only spent fuel, which is not classified as waste, and is contracted to be sent from Hunterston, Torness and Chapelcross to Sellafield. The principle being put forward by the Scottish Government is that waste should be stored safely in the place where it's generated, as opposed to digging some massive hole in the ground somewhere and hoping beyond hope that's going to be all right for future generations.[83] First Minister Alex Salmond said the plans would minimise the environmental impact of the waste by taking away the need for it to be transported to its current dumping ground in Cumbria. The proposals were contained in the National Planning Framework which was published by John Swinney, the Finance Secretary, in February.[84]

14.0 Dounreay

14.1 THE cost to taxpayers of cleaning up the Dounreay nuclear plant has soared by more than £600 million and could become even more expensive. The decommissioning of the Caithness complex and creating a near-greenfield site was due to be completed by 2032 at a cost of £2.9 billion. However, the figure for the latest long-range proposal for the site, known as the Lifetime Plan, has jumped to almost £3.6 billion. The NDA said the main reasons for the increase were improved estimating of costs in later years and the identification of gaps in previous plans.[85]

14.2 THE bill to deal with Dounreay's radioactive liquor spill within a waste plant is now expected to be over £4 million. The job of recovering the fissile material which accidentally spewed on to the floor of a shielded cell in September 2005 has been much tougher than initially envisaged. A failure of management systems led to intermediate-level active liquid waste spilling over a steel drum after an automatic mechanism to release its lid failed to activate. Before the flow was stemmed, 58 gallons had poured out, much of it mixing with a separate feed of cement powder. [86]

14.3 Dounreay's operators have had to revise their plans to build a new low-level waste dump after discovering their preferred site lies on top of a geological fault-line. They had been working on flawed information provided by the Nirex agency that drilled a series of boreholes in the early 1990s when Dounreay was being considered as the site for a national intermediate-level nuclear waste dump. New research has led to the UK Atomic Energy Authority (UKAEA) moving the location of the dump further north and revising the layout of the six underground concrete vaults. The ground remains outwith the licensed nuclear site and close to the neighbouring settlement of Buldoo, whose residents remain opposed to the proposed £110m complex.[87]

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[82] Sunday Herald, 13 January 2008
http://www.sundayherald.com/news/heraldnews/display.var.1961841.0.0.php
[83] Scotsman 14th Jan 2008
http://news.scotsman.com/politics/Scotland-may-get-six-nuclear.3667955.jp
[84] Herald 14th Jan 2008
http://www.theherald.co.uk/news/news/display.var.1962423.0.Plan_for_six_Scots_nuclear_waste_stores_is_responsible.php
[85] Herald 21st Nov 2007
http://www.theherald.co.uk/news/news/display.var.1847359.0.0.php
[86] John O Groat Journal 12th December 2007
http://www.johnogroat-journal.co.uk/news/fullstory.php/aid/3632/%A34m_price_tag_for_spill_clean-up.html
[87] Herald 25th Jan 2008
http://www.theherald.co.uk/news/other/display.var.1993039.0.Dounreay_is_forced_to_rethink_nuclear_dump.php

14.4 Dounreay's first private-sector management team is on track to take over the day-to-day running of the site's £3.6 billion clean-up at the start of April. UKAEA Ltd will deploy about a dozen executives, currently in senior posts at Dounreay, to direct the decommissioning programme. At the same time, nearly all the 1065-strong UKAEA workforce will transfer to the newly-formed Dounreay Site Restoration Ltd (DSRL). The move is subject to regulators approving the transfers of the site operating licence and other authorisations from the publicly-owned UK Atomic Energy Authority. UKAEA Ltd's tenure will be relatively short if it loses out in its bid to continue to run the site when the management contract is put out to competitive tender.[88]

[88] John O Groat Journal 30th Jan 2008
http://www.johnogroat-journal.co.uk/news/fullstory.php/aid/3918/Dounreay_changeover_set_for_April.html