



**NuClear News No. 19
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1. When is a subsidy not a subsidy? When it has the word carbon in its name

“Those are my principles and if you don't like them . . . well, I have others.”

Groucho Marx. (1)

The new Liberal Democrat Secretary of State for Energy and Climate Change, Chris Huhne, told *The Today Programme* on 13th May (2) that he may oversee a new wave of nuclear reactor construction, despite previously opposing such a move, if power companies go ahead without government subsidy. He said no new nuclear has been built without public subsidy for a very long time. If they come up with as feasible plan which genuinely involves no subsidy then this will be put through the national planning process. The Liberal Democrats will not vote against. There are an awful lot of ifs. The key point, Huhne stressed, on which there is agreement within the coalition Government, is the principle there will be no public subsidy. The most scandalous legacy of the last 13 years, he said, is we are sitting in the part of Europe with the biggest abundance of renewables but with the worst record. And the cheapest way is to save energy.

Here is a Liberal Democrat, said the *Daily Mail*, who has spent most of his life forcefully arguing against nuclear power – condemning it as a “*tried, tested and failed technology which carries huge environmental and security risks*” – who is now running a Government Department which is spearheading new reactors.

The coalition agreement between the parties notes that the Liberal Democrats have “*long opposed any new nuclear construction*”, and will maintain their opposition to nuclear power while permitting the Government to pass laws that make new nuclear construction possible. They will abstain in parliamentary votes. The Tories, on the other hand, are “*committed to allowing the replacement of existing nuclear power stations... provided that they receive no public subsidy.*”

Immediately after the coalition was formed concerns were expressed about the political uncertainties caused by appointing a Liberal Democrat Secretary of State which might delay investment in new reactors. (3) But by the end of May, EDF Energy announced it had received sufficient reassurances from Huhne to continue planning new reactors. Vincent de Rivaz, the chief executive of EDF in Britain said the company and the Government are both committed to new reactors without subsidies and at a viable cost. (4)

EDF says it is particularly pleased about plans to introduce a floor to the carbon price. The coalition has agreed to implement a floor price for carbon in the European emissions trading scheme, which some nuclear utilities have argued is essential to keep nuclear new-build cost-competitive. *“21st century nuclear power needs a 21st century subsidy... no blank cheques this time - just an apparently green tweak to the emissions trading system, and voila!”* says Dan Box on *The Ecologist* website. This will also favour renewables, but could make the costs of nuclear electricity far more competitive, even without subsidy. The extra cost of the floor-price, of course, will be passed on to consumers through energy bills. Huhne, it seems, may have ruled out using the public purse to fund the new reactors, but doesn't mind asking us to do it instead. (5) Geoffrey Lean says the carbon floor price is likely to benefit renewables more than nuclear and any further measures or subsidies are ruled out. Nuclear power stations are unlikely to be built without them, and Chris Huhne, will not go out of his way to help them. (6)

The government is planning to *“rig the carbon trading market”* by setting a carbon floor price, said *The Sunday Times*. This will increase electricity bills for households and businesses, *“transfer risk from the nuclear developer to the electricity consumer,”* and, in effect, subsidise nuclear power by the back door, said Peter Atherton, head of European utilities at Citigroup. (7) New reactors will take years to build, but power companies could start passing on the costs of the higher carbon price to consumers through higher energy bills, as soon as legislation is agreed.

Setting a carbon floor price may not be as straightforward as it seems. The idea was explicitly welcomed across the energy industry, particularly by would-be nuclear builders, who, faced with a weak current carbon price and little regulation beyond the end of the EU ETS phase three, in 2020, may have trouble building a viable business case for such a vast, long term investment. A carbon price floor could solve their problem. But *“the devil will be in the detail”*. Richard Gledhill, at PricewaterhouseCoopers, said: *“Until we know how the Government is planning to do this and what the floor level will be, we just do not know how significant it is.”* The biggest question will be affordability. If the floor price is set sufficiently high to act as a real incentive to develop new nuclear, it could quickly become unaffordable for the Government. But there are also issues about the unintended consequences. The measure runs the risk of undermining the whole EU ETS market. It may also produce windfall profits elsewhere. (8)

Vincent de Rivaz, the chief executive of EDF Energy, who has campaigned for a carbon floor price, says the UK is now more likely to build new nuclear power stations under the coalition Government. (9) EDF says the Government's pledge not to subsidise new stations won't slow it down. (10) It has been quick to assure that it will not need subsidies to build new reactors, but as Professor of Energy Policy at Greenwich University, Stephen Thomas, points out *“what the government and EDF believe constitutes a subsidy is very different to the usual definition.”* (11)

Huhne says even support in the event of a disaster is out of the question: *“That would count as a subsidy absolutely. There will be no public bailouts . . . I have explained my position to the industry and said public subsidies include contingent liabilities.”* This is an important hardening of the position held by the Labour administration and could make it much harder for companies to finance the plants. (12)

Another subsidy proposal, which the new Secretary of State could stop if he wanted to, is the proposal to offer nuclear operators a fixed unit price for the cost of waste disposal. The Nuclear Free Local Authorities (NFLA) has written to Chris Huhne urging him to withdraw the previous Government's current open consultation on a methodology for determining a Fixed Unit Price for waste disposal from new nuclear reactors. This effectively caps the cost to the operator and transfers the risks of cost overruns – a usual occurrence in the nuclear industry – to the UK taxpayer. In other words, it would be a hidden public subsidy for new nuclear build. (13)

However, having appointed Charles Hendry as the Tory Energy Minister responsible for overseeing nuclear policy, perhaps the Tories will be able to side-step the Liberal Democrat anti-nuclear Secretary of State anyway.

For once *NuClear News* agrees with Jamie Reed, the re-elected pro-nuclear MP for Copeland. He says: *“Public money will inevitably be used to support the civil nuclear constabulary, development of the national grid, establishment of a deep underground repository and much else.”* Although we don't agree that *“The notion of no new nuclear without any public subsidy at all should be abandoned”*. (14)

For a full exploration of hidden subsidies to the nuclear industry see the December 2009 report by the Energy Fair Group: http://www.mng.org.uk/gh/private/nuclear_subsidies1.pdf

- (1). Daily Mail 14th May 2010
<http://www.dailymail.co.uk/debate/article-1278274/Chris-Huhne-Energy-Secretary-like-having-vegan-charge-McDonalds.html>
- (2). Radio 4 Today Programme 13th May 2010
http://news.bbc.co.uk/today/hi/today/newsid_8679000/8679504.stm
- (3). Telegraph 13th May 2010
<http://www.telegraph.co.uk/finance/newsbysector/energy/7716666/Coalition-Government-Nuclear-plans-destabilised-by-Lib-Dem-energy-minister.html>
- (4). Guardian 27th May 2010
<http://www.guardian.co.uk/business/2010/may/27/edf-nuclear-huhne>
- (5). The Ecologist 24th May 2010
http://www.theecologist.org/blogs_and_comments/commentators/Dan_Box/491424/the_government_has_found_a_backhanded_way_to_subsidise_nuclear_power.html
- (6). Telegraph 12th May 2010
<http://blogs.telegraph.co.uk/news/geoffreylean/100039565/blue-and-yellow-make-green-as-the-new-governments-environment-policies-emerge/>
- (7). Sunday Times 16th May 2010
http://business.timesonline.co.uk/tol/business/industry_sectors/utilities/article7127578.ece
- (8) Independent 17th May 2010
<http://www.independent.co.uk/news/business/news/industry-backs-plans-for-carbon-price-floor-to-boost-nuclear-1975195.html>
- (9). Telegraph 15th May 2010
<http://www.telegraph.co.uk/finance/newsbysector/energy/7728799/Coalition-a-boost-to-nuclear-says-EDF-boss.html>
- (10) This is Somerset 19th May 2010
<http://www.thisissomerset.co.uk/news/EDF-Hinkley-C/article-2177411-detail/article.html>
- (11) Thomas, S. Blair's nuclear dream faces financial meltdown. Parliamentary Brief, January 2010.
<http://www.parliamentarybrief.com/articles/1/new/mag/77/1037/blairs-nuclear.html>
- (12) Times 15th May 2010
<http://www.timesonline.co.uk/tol/news/politics/article7127202.ece>
- (13) New Nuclear Monitor No.21, UK Government Consultations on the financing arrangements for radioactive waste management and nuclear reactor decommissioning, NFLA, May 2010
http://www.nuclearpolicy.info/docs/nuclearmonitor/NFLA_New_Nuclear_Monitor_No21.pdf
- (14) *Whitehaven News* 26th May 2010
<http://www.whitehaven-news.co.uk/news/mp-to-use-queen-s-speech-debate-to-oppose-cutbacks-1.712972?referrerPath=news>

2. Will there be a Huhne-inspired nuclear slowdown?

Analysts are worried that Chris Huhne could slow down the process of building nuclear stations, according to *The Telegraph*. “*Even if the Conservatives pressed ahead with new nuclear capacity, having a Liberal Democrat in charge of delivering it raises major concerns about whether it would remain a key priority.*” (1) There remains a sizeable ‘threat’ that Huhne could force a time-consuming and costly public inquiry on Justification, for example. (2)

Former Liberal Democrat Energy Spokesperson, Simon Hughes MP, called for an inquiry at a meeting organized by the Nuclear Consultation Group in Westminster in March. “*It would be completely unacceptable*”, he said, “*for the government to rush through new nuclear in its last days in office without a public inquiry.*” (3) Re-elected Liberal Democrat MPs, Tom Brake, Norman Baker and Steve Webb are also on the list of those who have supported calls for an inquiry.

Given that we are still waiting for an opinion from the Committee on Medical Aspects of Radiation and the Environment (COMARE) on the German KiKK study which provides irrefutable evidence that leukaemia risks are more than doubled among children living near nuclear reactors, the very least the Secretary of State can do is to order a Justification Inquiry.

The previous Labour Government launched two consultations on nuclear finance which are still open. The main one

deals with a proposal to offer the nuclear industry a Fixed Unit Price for waste disposal. It sets out the methodology to be used to determine the fixed unit price and updates estimates of the costs of waste management, decommissioning and waste disposal. (4)

This effectively caps the cost to the operator of nuclear waste disposal and transfers the risk of cost overruns to the taxpayer, so represents a public subsidy to new reactors. Dieter Helm, Professor of Energy Policy at New College, Oxford, says this effectively means utilities will pay the state to absorb the risks of handling nuclear waste. Gordon Mackerron, former chair of the Committee on Radioactive Waste Management (CoRWM), and Stephen Thomas, Professor of Energy Policy at Greenwich University, have both attacked these plans, because, whilst the proposal is to cap reactor operators' liability, we only have a vague idea of what a nuclear waste repository will cost. From past experience of the accuracy of nuclear cost estimates, and indeed judging by the cost escalations just since 2007, the proposed system could prove costly to taxpayers.

The industry should be required to pay the full commercial rate for waste disposal costs. If this proves to be far too expensive, killing the prospects of any new reactors, then utilities will need to generate electricity by other, less (financially) risky means, or implement efficiency measures (see below). There are plenty of opportunities to do this without requiring the taxpayer to accept the risk for such uncertain outcomes. Labour's consultation should be withdrawn and the Secretary of State for Energy and Climate Change should draft regulations which force the industry to shoulder their own risks rather than seeking to dump them onto the taxpayer.

(1) Telegraph 14th May 2010

<http://www.telegraph.co.uk/earth/energy/nuclearpower/7720894/Coalition-government-Chris-Huhne-accepts-unpleasant-nuclear-compromise.html>

(2) Telegraph 13th May 2010

<http://blogs.telegraph.co.uk/finance/rowenamason/100005630/britains-nuclear-industry-wakes-up-to-an-explosive-problem-as-chris-huhne-moves-in/>

(3) Liberal Democrats Press Release 11th March 2010

http://www.libdems.org.uk/news_detail.aspx?title=We_need_a_public_inquiry_into_new_nuclear_says_Hughes&pPK=0b54ac58-ba3d-4ba0-81f6-325b30a16486&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+libdemnews+%28Liberal+Democrats+%3A+All+News+Feed%29

(4) For a longer briefing on these consultations see here:

http://www.nuclearpolicy.info/docs/nuclearmonitor/NFLA_New_Nuclear_Monitor_No21.pdf

3. Will the lights really go out?

A letter to *The Independent* by 30 academics says the suggestion that the lights will start to go out by 2015 unless we start on new nuclear construction now is not supported by evidence, in that it assumes that no new generation capacity of any kind will be built over the next five years. In fact more non-nuclear generation is already under construction and will come on-line by 2015 than is scheduled to go off-line. A further 1GW of new capacity beyond 2015 is being planned, permitted or constructed. Although this is predominantly gas-fired, the International Energy Agency has made it clear that gas is available in an increasingly global market to deliver reliable and affordable access for the UK.

National Grid has made clear, domestic demand for natural gas could be reduced significantly, and as anaerobic digestion biogas starts to come on-line, this will leave more gas capacity for the power sector (National Grid concludes that we can supply up to 18 per cent of UK gas demand from waste digestion). The real issue for gas supply is the lack of storage capacity, making us susceptible to market manipulation and threatened interruptions.

Three major new energy scenarios, from the European Climate Foundation, Price- Waterhouse Coopers (backed by the Potsdam Institute for Climate Impact Research), and the European Renewable Energy Council, conclude that the EU could obtain both its electricity and even its total energy, from renewables by 2050 – with no nuclear power, and without significant extra costs. Indeed it could be cheaper long term – after all there would be no fuel costs. Wind power is already the cheapest source on the grid in some US states, and it, and the other renewables, will get cheaper still as technology develops.

There are viable and pragmatic energy futures: where offshore wind, waves, tides, biomass and photovoltaics collectively offer the potential to harness enormous energy resources. Other energy futures include: large-scale networks for energy distribution; radical market innovations from energy supply to energy services, comprehensive

energy efficiency, and the restructuring of our built environment to provide for more distributed and integrated energy systems. The fact is, we are approaching an energy future of rich and bewildering choice, where a variety of radically different options present technically and economically viable alternatives – a future where the nuclear option is the dearest and riskiest of gambles.

Independent 4th May 2010

<http://www.independent.co.uk/opinion/letters/letters-nuclear-power-1961532.html>

4. Non-proliferation – multi-national approaches to the nuclear fuel cycle don't work

As he was leaving his post as director general of the IAEA last year, Mohamed ElBaradei warned the world about 'virtual nuclear weapons states', countries that will develop weapons technology but stop just short of producing an actual bomb. This would allow countries to remain technically compliant with the NPT while being within a couple of months of deploying and using a nuclear weapon. His successor, Yukiya Amano, told the nuclear Non-Proliferation Treaty (NPT) Review Conference that more than 60 countries are considering using nuclear power to generate electricity and between 10 and 25 of these are expected to bring their first reactors online by 2030. (1)

The nuclear industry and the International Atomic Energy Agency (IAEA) need the non-proliferation veneer of so-called multi-national approaches to the nuclear fuel cycle (or MNAs) to legitimize their 21st century expansion plans for nuclear power. But increasing the number of countries with the potential to make nuclear weapons increases the chances that such weapons will be used in a conflict. The proliferation threat will not be resolved by MNAs, but through nuclear disarmament, a Comprehensive Fissile Material Treaty and the global phase out of nuclear power, says a new report by Frank Barnaby and Shaun Burnie for Greenpeace International. (2) The inalienable rights of humanity are to have their long term interests protected by their governments. Nuclear energy, with or without MNAs, puts that future under severe threat.

While much of the world's non-proliferation effort is focused on uranium enrichment in Iran, plutonium barely gets a mention, yet a standard 1000MW reactor produces 50 bombs worth every year. While most plutonium is separated in large existing reprocessing plant, a small clandestine facility could be built in six months.

MNAs are being proposed to provide assurance to nuclear reactor operators that they will have access to nuclear supplies, in particular low enriched uranium, while at the same time discouraging them from developing their own nuclear fuel cycle facilities – uranium enrichment and reprocessing facilities. A 2005 IAEA report on MNAs recommended a range of measures including developing supply arrangements with IAEA backing; conversion of national facilities to multinational control, and the construction of new facilities under multinational control. But many developing states see MNAs as making the non-proliferation regime even more discriminatory than it is already.

Barnaby and Burnie say the one MNA to have received approval from the IAEA Board is a Russian nuclear fuel bank at Angarsk. But this is being driven mainly by Russia's desire to capture a larger share of the global nuclear market in order to fund the domestic expansion of its nuclear programme including fast breeder reactors. Russia wants to import thousands of tons of spent fuel for reprocessing and disposal, secure new sources of uranium, build nuclear reactors, and increase its share of the global enrichment market. By promoting itself as playing a positive non-proliferation role, Russia is seeking to create a mirage, but the consequences of the plan will be to make worse an already dire situation within Russia's nuclear security, safety infrastructure and environment, whilst actually increasing the threat of nuclear proliferation.

(1). Greenpeace Nuclear Reaction 5th May 2010

http://weblog.greenpeace.org/nuclear-reaction/2010/05/nuclear_nonproliferation_treat.html

(2). Barnaby, F and Burnie, S. Planning Proliferation: The Global Expansion of Nuclear Power and Multinational Approaches, Greenpeace International, May 2010.

5. Opinion – does nuclear power limit climate change?

In the June 2008 Eurobarometer report “Attitudes towards Radioactive Waste” 66% of UK citizens interviewed agreed that an advantage of nuclear power is that it emits less greenhouse gases than coal or oil. (1)

The March 2010 Eurobarometer report on “Europeans and Nuclear Safety” (2) showed that when asked to what extent they agreed with the statement that nuclear energy helps to limit climate change, only 49% agreed or tended to agree. If you compare these figures with the 2006 Europeans and Nuclear Safety report the number agreeing has gone up by 4%, not surprising given the propaganda onslaught. But this is still a much lower figure than the 2008 figure.

The most recent survey says most Europeans still see nuclear energy as more of a threat than as a neutral source of energy. Lack of security to protect nuclear reactors against terrorist attacks and the disposal and management of radioactive waste remain the major dangers for most people.

(1). Attitudes towards radioactive waste, June 2008, Eurobarometer 297. (see page 21)
http://ec.europa.eu/public_opinion/archives/ebs/ebs_297_en.pdf

(2) Europeans and Nuclear Safety, March 2010, Eurobarometer 324 (See page 14)
http://ec.europa.eu/energy/nuclear/safety/doc/2010_eurobarometer_safety.pdf

6. Westinghouse reactor-design problems

Nuclear reactor builder Westinghouse was expected to update the Health & Safety Executive (HSE) during May on its progress towards proving its reactor design is safe for use in the UK. An action plan for the last stage of the generic design assessment (GDA) of the AP1000 nuclear reactor was agreed in February. (1) During stage three of the GDA the Nuclear Installation Inspectorate (NII) raised concerns about the design of the concrete filled steel structural modules used to protect the nuclear island containing the reactor building, fuel store and spent fuel store. It said there was a lack of evidence that the new module design was sufficiently robust to protect key structures within the nuclear island from external hazards. (2) Westinghouse says it is on track with the action plan which involves external testing at Purdue University in the United States. But the work will take time and could lead to delays.

Meanwhile a dozen US environmental organizations have called upon U.S. nuclear regulators to launch an investigation into newly identified flaws in Westinghouse’s new reactor design and to suspend the AP1000 reactor from licensing and taxpayer loan consideration. The newly discovered design flaw is tied to documentation of dozens of corrosion holes being found in existing U.S. reactor containments. (3)

Arnold Gundersen, former senior vice-president at Nuclear Energy Services PCC, and a 38-year nuclear engineering veteran, has produced a 32-page technical report (4) which details a history of holes and cracks found at operating nuclear plants. Such corrosion problems, if coupled with the experimental “passive” emergency cooling feature in the AP1000, could accelerate and greatly increase the early release of radiation during an accident. Gundersen’s report is backed by engineer and corrosion specialist Rudolf Hauser. *“The proposed AP1000 containment design is inherently less safe than current reactors,”* says Gundersen. He continued, *“Westinghouse has ignored the long history of previous containment failures that indicate there is a high likelihood that the AP1000 containment might be in a failed condition [one or more undetected holes] before an accident begins. The containment leakage problem is exacerbated because the AP1000 is specifically intended to function as a chimney – to pull air up and release it through the top of the building.”*

Gundersen’s analysis shows that even a three-quarter inch hole in the AP1000 reactor building could result in a large and unfiltered radiation release. The building is deliberately intended to move air and heat into the atmosphere during an emergency. This intended heat removal via a gap between an inner metal containment and the outer shield building – the very feature Westinghouse touts as its principal safety upgrade – would act as a chimney effect drawing radioactivity directly into the environment.

(1). New Civil Engineer 6th May 2010
<http://www.nce.co.uk/story.aspx?storycode=5217325>

(2). See Generic Design Assessment, NuClear News No.16, March 2010
<http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo16.pdf>

(3) NIRS Press Release 21st April 2010

<http://www.nirs.org/press/04-21-2010/1>

(4) See: <http://www.fairewinds.com/reports> for the engineer's report and graphic illustrations of the chimney-effect during an accident.

7. View on the Ground

Cumbria Wildlife Trust's planning officer has described the site at Kirksanton as one of the most important areas in the country for natterjack toads. The trust estimates the area is home to around 24% of the UK's natterjack population. Writing in the May edition of Cumbrian Wildlife magazine about plans to build a nuclear reactor on the site, Dr Kate Willshaw said: "*It is the most damaging proposal for wildlife in Cumbria that we have seen in the last 10 years*".

North West Evening Mail 11th May 2010

http://www.nwemail.co.uk/news/nuclear-plan-a-threat-to-wildlife-trust-expert-1.706573?referrerPath=home/love_going_out

Thanks to the wonders of You Tube we can now watch Jonathon Porritt addressing a packed meeting of the Stop Hinkley campaign. A new nuclear power station at Hinkley point is not needed, he said, and would leave an unacceptable legacy to future generations.

YouTube April 2010 <http://www.youtube.com/watch?v=-RlacFBilew>

Western Daily Press 18th March 2010 <http://stophinkley.org/NewsPages/news100318WDP.htm>

Stop Hinkley Press Release 17th March 2010 <http://www.stophinkley.org/PressReleases/pr100317Porritt.htm>

A planning application by EdF to dig twenty trenches close to the village of Shurton has been turned down by West Somerset District Council. Permission for the trenches was requested by EdF in order to ascertain the nature and depth of the soil above rock. The planning committee threw out the application saying that there was no justification for so many trenches especially so near to the village.

Stop Hinkley Press Release 6th May 2010 <http://www.stophinkley.org/PressReleases/pr100506.htm>

The anticipated date for the Hinkley C planning application to the Infrastructure Planning Commission has slipped by four months from 2nd August to 1st December. This is the second delay in the application which was originally expected at the beginning of July.

Stop Hinkley Press Release 16th May 2010 <http://www.stophinkley.org/PressReleases/pr100516.htm>

Augean have appealed against Northamptonshire County Council's refusal to grant the Company planning permission to dispose of radioactive waste at the Kings Cliffe landfill site.

Northamptonshire County Council 17th May 2010

<http://www.northamptonshire.gov.uk/en/councilservices/Environ/planning/planapps/Pages/CurrentAppeals.aspx>

Damian Collins, the new Tory MP for Folkestone and Hythe, has taken over campaigning for a Dungeness C where Michael Howard left off. He says new power station at Dungeness could create thousands of new jobs. Of the eleven sites originally nominated, Dungeness was the only site which the Draft National Policy Statement proposed to drop. Any new reactor on the proposed site would need to be built further back from the coastline to enable adequate sea defences to be put in place which in turn would destroy the shingle ridges which are the subject of strict environmental protection. Natural England made a strong case for the protection of the fragile eco-system at Dungeness, as did RSPB.

Romney Marsh Times 22nd May 2010 <http://www.romneymarshtimes.com/2010/05/my-priorities.html>

8. Chernobyl health controversies continue as 25th anniversary approaches

Calls have been made for comprehensive studies into the continuing health effects of the Chernobyl nuclear disaster after a rise in birth defects was identified in one of the regions most affected by the catastrophe. The findings, published in *Pediatrics*, are in stark contrast with a major, but highly criticised, 2005 study by WHO and other groups, which suggested that there was no evidence of an increased risk of birth defects in areas contaminated by the accident. The author told *The Lancet*: “*The official position is that Chernobyl and birth defects are not connected. That position needs to be reconsidered at the very least.*” (1)

Chernobyl’s adverse effects are examined in a new book which summarises hundreds of studies demonstrating health effects in humans, animals and plants. The authors conclude that the health and environmental consequences of the Chernobyl disaster are much larger than previously estimated. Exposures to affected people are actually increasing. Collectively, the studies suggest significant risks to those exposed to relatively low levels of radioactivity in the environment. (2)

(1). *The Lancet* 24th April 2010 <http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2810%2960605-8/fulltext>

(2) **Chernobyl: Consequences of the Catastrophe for People and the Environment (Annals of the New York Academy of Sciences)**, Alexey V. Yablokov, Vassily B. Nesterenko, Alexey V. Nesterenko (Editors). Janette D. Sherman-Nevinger (Consulting Editor). For a review by Dr Ian Fairlie see: <http://www.no2nuclearpower.org.uk/reviews/review06.php>

9. Japanese attempt to rescue Sellafield MoX plant

The nuclear facility we described as “Blair’s Folly” in NuClear News No.6 might be saved by the Japanese. The only nuclear facility given the go-ahead by the Labour Government between 1997 and 2010 – the Sellafield MoX Plant (SMP) - has been an economic and technical failure and a constant reminder of why the nuclear industry has become notorious for making wildly exaggerated claims and should be should treated with extreme scepticism and mistrust. (1) Designed to manufacture 120 tonnes of mixed plutonium and uranium oxide fuel every year, for overseas customers, the plant has produced a total of little over 10 tonnes in 8 years of operation at a cost to the taxpayer of more than £1bn. (2)

Now the Nuclear Decommissioning Authority (NDA) has announced that contracts with SMP from 10 Japanese power companies have been secured. But the deal is far from being ‘done and dusted’ and will be entirely dependent on the installation of new equipment and extensive modifications to the plant, all of which will be paid for by the Japanese. When the plant finishes the German order it is currently working on it will undergo a full clean-out, followed by modification and installation of new equipment, and then be re-commissioned.

Sellafield’s Thermal Oxide Reprocessing Plant (THORP) secured orders thirty years ago from Japan amounting to 2864 tonnes of spent fuel for reprocessing. From the reprocessing of this fuel, some 12 tonnes of plutonium have been recovered and stockpiled at Sellafield. It is the intention of the Japanese companies to convert all 12 tonnes of plutonium into MOX fuel at SMP. (3)

Meanwhile, details of a troubled shipment of vitrified High Level Waste (HLW) from Sellafield to Holland earlier this year have emerged. Operators of the nuclear cargo vessel fleet International Nuclear Services (INS) provided some clarification as to why the sailing from Barrow of the Atlantic Osprey – already loaded with one transport flask containing 28 canisters of vitrified HLW and scheduled to leave port on 11th March – had to be delayed by 24 hours, and why it then took the ship almost two days longer than expected to reach the Dutch port of Vlissingen with its hazardous cargo.

Apparently, as the HLW was loaded onto the Atlantic Osprey, a similar consignment had just arrived in Japan but it was found that the contents of the transport flask did not fully tally with the official paperwork – an unspecified number of canisters being ‘out of position’ within the holding channels of the transport flask. After consultation with its overseas customers and Sellafield, and having obtained clearance from the UK’s Department for Transport, the Atlantic Osprey was allowed to leave Barrow on the evening tide of the 12th March. Arriving four days later in Vlissingen (16th March), some Dutch HLW canisters were also found to be out of position within the transport flask. But this doesn’t explain why a voyage that should have taken little more than 2 days, actually took 4 days.

Martin Forwood of Cumbrians Opposed to a Radioactive Environment said: “*Swanning about aimlessly for hours close to the busy English channel shipping lanes with a highly radioactive cargo on board cannot be reconciled with*

the accepted principle that delivery of such materials is effected without undue delay.. I don't believe we've been told the whole truth about this part of the voyage, and further questions need to be asked". (4)

(1). Independent 7th Apr 2009

<http://www.independent.co.uk/opinion/commentators/jean-mcsorley-a-staggering-waste-of-taxpayers-money-1664429.html>

(2) Independent 7th April 2009

<http://www.independent.co.uk/environment/green-living/a-1631bn-nuclear-white-elephant-1664427.html>

(3) CORE Press Release 13th May 2010

<http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=280>

Whitehaven News 13th May 2010

<http://www.whitehaven-news.co.uk/news/japanese-deal-may-save-1-000-mox-jobs-1.707306?referrerPath=home>

(4) CORE Press Release 11th May 2010

<http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=279>

10. Renewables are no joke

Damian Reece, writing in *The Telegraph* was pleased that the proposed new reactors made it into the Coalition Government's agreed programme, but, he said the "*document also contained one ludicrous sop to the Lib Dems ... which is to seek to increase the target for energy from renewable sources, meaning wind. The target is already an extra 30 gigawatts (equivalent to half the nation's winter demand) over 10 years. To set it even higher is laughable and starts to make a mockery of what is otherwise a deadly serious policy issue.*" Raising the wind power target is, he said, "*a joke*".(1)

The coalition agreement certainly seeks to increase the target for energy from renewable sources, but this does not necessarily mean wind. In fact the agreement says nothing to indicate such a conclusion. It does, however, mention community-owned renewables, feed-in tariffs and anaerobic digestion. Renewable targets could be raised by implementing a much more ambitious programme to promote small-scale renewables and microgeneration.

The previous Government's Low Carbon Transition Plan only expected two of the 30% renewable target to come from small-scale renewables - whereas the solar PV industry alone expects to provide 12% across Europe. The Energy Saving Trust says we could provide 30-40% of UK electricity demand with microgeneration by 2050, implying a contribution of around 10% by 2020. (2) The difference between 2 and 10% would be enough to save us having to replace our nuclear reactors. The National Grid says we could supply up to 18% of UK gas demand from anaerobic digestion. (3)

A study undertaken by the Boston Consulting Group for the Offshore Valuation Group suggests that Britain could not only keep the lights on but could also produce a surplus of electricity by 2050 from marine energy. (4) Currently the lion's share of renewable capacity is allocated to fixed wind turbines, with small amounts allocated to tidal stream and wave power. The study predicts that floating wind turbines have the most potential, possibly being able to generate 1,533 terawatt hours a year; 2,100 terawatt hours would have been enough to power the UK six times over in 2009. There are huge challenges to hit the levels outlined in the report. There are issues of capacity in the industry for the big builds, especially with some of the projects further offshore, at a time when finance is tough to come by. (5)

The Scotsman described marine energy as a windfall within Scotland's grasp which could power the country seven times over by 2050. (6) Meanwhile the Scottish Government earmarked 25 new sites for offshore wind development after 2020. The locations were revealed in the Strategic Environmental Assessment and Development Plan for Offshore Wind, which was published for consultation. The report also paved the way for the next step in developing the ten existing sites, allocated by the Crown Estate to energy firms last year. (7)

A new prototype wave power machine was unveiled by Scotland's First Minister, Alex Salmond. The Vagr Atferd, which can produce 750kW, was manufactured by the Leith-based firm Pelamis Wave Power (PWP) for E.On. The device's development and construction was part funded by the Carbon Trust. It will now be transported to Orkney, where it will be tested for three years to prepare it for commercial use. (8) Ten marine renewable projects with the potential to power almost a third of Scotland's homes were granted leases in the Pentland Firth earlier this year by the Crown Estate. The leasing scheme - the first initiative of its kind in the world - has paved the way for the embryonic marine energy sector to take off in Scotland. It could result in 1,000 wave and tidal energy devices being installed.

The seven winners ranged from global utility giants including Eon, Scottish & Southern Energy and ScottishPower to small Scottish renewables firms such as Pelamis and Aquamarine Power, which is also based in Edinburgh. (9)

Meanwhile, at the other end of the United Kingdom Plans, Cornwall is trying to position itself as a world leader in renewable energy. Cornwall Council's Green Cornwall initiative, which was launched in February, detailed ambitious projects to make the county a pioneer in green technology. The latest project will see the council install 130 solar photovoltaic panels on the roof of New County Hall in Truro. (10)

A public consultation has begun for a 15-acre "energy farm" on a green-field site near Wadebridge, Cornwall. A local farmer has raised £4.5m of private investment to construct the first of what could be 10 similar sites across Cornwall and the Isles of Scilly, which, if all built, would triple the UK's current solar generating capacity. (11)

A £42 million "Wave Hub" project is being developed by the South West Regional Development Agency as a key part of the West Country's status as the UK's first Low Carbon Economic Area. The Wave Hub will be the world's largest test site for wave energy technology. By building a grid-connected socket on the seabed, 16 kilometres off the coast of Cornwall, wave power devices can be connected to the grid and have their performance evaluated. (12)

(1). Telegraph 21st May 2010

<http://www.telegraph.co.uk/finance/newsbysector/energy/7747436/Coalition-plan-to-raise-wind-power-target-is-a-joke.html>

(2). See "Long Live the Local Energy Revolution", NuClear News No.9

<http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo9.pdf>

(3). See "Green Gas Plan" NuClear News No.8

<http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo8.pdf>

and Independent 4th May 2010

<http://www.independent.co.uk/opinion/letters/letters-nuclear-power-1961532.html>

(4) Guardian 19th May 2010

<http://www.guardian.co.uk/business/2010/may/19/wind-wave-power-north-sea>

(5) Independent 20th May 2010

<http://www.independent.co.uk/news/business/news/britains-offshore-renewable-energy-worth-a-billion-barrels-of-oil-and-145000-new-jobs-1977531.html>

(6) Scotsman 20th May 2010

<http://thescotsman.scotsman.com/news/Renewables-will-power-the-country.6306699.jp>

(7) Scotsman 20th May 2010

<http://thescotsman.scotsman.com/wind-power/Huge-plans-for-offshore-wind.6306709.jp>

(8) BBC 18th May 2010

<http://news.bbc.co.uk/1/hi/scotland/8689095.stm>

Scotsman 19th May 2010

<http://thescotsman.scotsman.com/news/600ft-39sea-snake39-to-harness.6303096.jp>

(9) Scotsman 19th May 2010

<http://thescotsman.scotsman.com/alternativeenergysources/A-third-of-homes-to.6303230.jp>

(10) Watch the installation in progress. <http://vimeo.com/11926135>

Western Morning News 25th May 2010

<http://www.thisiswesternmorningnews.co.uk/environment/Cornwall-goes-green-solar-panels-installed-county-hall/article-2209859-detail/article.html>

(11) Guardian 18th May 2010

<http://www.guardian.co.uk/environment/2010/may/18/solar-farms-cornwall-silicon-vineyards>

(12) Western Morning News 18th May 2010

<http://www.thisiswesternmorningnews.co.uk/news/Wave-Hub-test-sea-power/article-2171439-detail/article.html>