



**NuClear News No.11
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1. Don't live near a nuclear station if you plan to get pregnant.

In 2004 the Government appointed Committee Examining Radiation Risks of Internal Emitters (CERRIE) concluded that uncertainties about the risks from radiation inside the body mean we could be exposed to 10 times the risk previously thought in some cases, so we should adopt a precautionary approach. (1) Yet the Nuclear Industry Association (NIA), in its application to Justify New Nuclear Power Stations, says "...*the remaining uncertainty* [with regard to radiation doses] *is too small to cast any significant doubt over the conclusions on radiological health detriment presented in this application.*"(2)

The recent German KiKK study (3) concluded that the leukemia risk near German nuclear power stations casts "*significant doubt*" over the official doses received by people living nearby. In other words, the official methodology used for estimating radiation doses near nuclear stations is unreliable. The study found a 2.2-fold increase in leukaemias and a 1.6-fold increase in solid cancers among children under 5 years old living within 5 km of all German nuclear power stations. It is an important study because of its large size and statistical power, and the fact that it was commissioned by the German Government. It is now officially accepted in Germany that children living near nuclear power plants develop cancer and leukaemia more frequently than those living further away.

Writing in Environmental Health Journal, Dr Ian Fairlie suggests this shows doses from environmental emissions from nuclear reactors to embryos and fetuses in pregnant women near nuclear power stations may be larger than suspected. Hematopoietic tissues – the one which form blood cells - appear to be considerably more radiosensitive in embryos and fetuses than in newborn babies. (4)

Fairlie says estimated radiation doses to adults near nuclear power stations are invariably very low. How these estimates are derived is not widely understood by scientists, and not at all by members of the public. In fact, the methodology is quite complicated, and is derived using at least four computer models in sequence. The problem is that each model gives a result which is inherently uncertain. Since the result from each model has to be combined, the cumulative uncertainty in dose estimates could be very large.

Once you have an estimated dose you then have to estimate the risk associated with that dose to estimate the likely level of cancers, and large uncertainties could exist in this model as well. For example, current official risks are derived mainly from the Japanese survivors of the atomic bombs. However many scientists worry that these risk estimates from an instantaneous external blast of high energy neutrons and gamma rays are not really applicable to the chronic, slow, internal exposures from

the low-range alpha and beta radiation from most environmental releases.

Dr Fairlie concludes that the KiKK study raises many questions, including whether vulnerable people, such as pregnant women and women of child-bearing age, should be advised to move away from the immediate vicinity of nuclear power stations.

The Department of Health has asked the Committee on Medical Aspects of Radiation in the Environment (COMARE) to conduct a review of recent publications on the incidence of childhood leukaemia in the vicinity of nuclear power stations. COMARE has set up a subgroup of committee members and external experts to conduct a review. (5)

(1) CERRIE Press Release 20th October 2004

http://www.cerrie.org/pdfs/cerrie_press_release_final.doc

(2) Nuclear Industry Associations application to justify new nuclear power stations, NIA, November 2008 http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=consultation_nuclear_justification_vol2.pdf&filetype=4

(3) Weiss W. Background information on the KiKK study. German Federal Office for Radiation Protection 2007, Berlin, Germany. Available in English at <http://www.bfs.de/en/kerntechnik/kinderkrebs/kikk.html>

(4) Fairlie, I. Commentary: Childhood Cancer Near Nuclear Power Stations. Environmental Health Journal, 2009. 8:43. <http://www.ehjournal.net/content/pdf/1476-069X-8-43.pdf>

(5) Current COMARE work programme 2009. http://www.comare.org.uk/comare_work.htm

2. Nuclear Inspectorate Re-structuring to Speed up New Build

Greenpeace has lambasted the Government for proposing changes to nuclear regulation - supposedly to make decision-making more open and transparent - based on a review, whose aims were never consulted on, and the report of which has been kept secret. This undermines the purpose of the exercise and understandably leads to public scepticism, and a widely held belief the restructuring is aimed primarily at facilitating new nuclear build. (1)

Greenpeace was responding to the joint Department of Energy and Climate Change (DECC) and Department of Work and Pensions consultation on re-structuring the Health and Safety Executive's Nuclear Directorate. (2) It said there is a contradiction at the heart of the consultation. If implemented and taken together with other measures being proposed by Government, the restructuring will not lead to real autonomy for nuclear regulators because it does not provide the necessary distance between those Government departments promoting nuclear power and the regulator.

If the Nuclear Directorate (ND) needs restructuring into a statutory corporation this should not be undertaken through use of a Legislative Reform Order (LRO). Greenpeace says it is clear this is being proposed precisely to rush through the changes and limit or even avoid detailed parliamentary scrutiny. This fast-track approach will not address key issues relating to the ND's potential to perform its role as a truly open and transparent regulator and appears to be being used because the process can continue even if there is an election and Parliament is not sitting.

Throughout the consultation paper there are claims the restructuring will result in greater openness and transparency. Yet there is absolutely no explanation of how greater transparency - to the public or Parliament - would be ensured by this restructuring. There will be no review of how the Nuclear Directorate operates its licensing processes for nuclear facilities - these are effectively closed to public input and Parliamentary oversight. Its inspection regime, in terms of consultation, or timeliness in reporting issues to the public and Parliament, will remain untouched.

Greenpeace also questions the independence of the proposed Nuclear Statutory Corporation (NSC). As things stand at the moment the NSC will be answerable to the Office for Nuclear Development which was set up specifically to promote new nuclear build. Unless the NSC is separated from the influence and direction of the Office of Nuclear Development and DECC it cannot be considered truly independent.

(1) World Nuclear News 1st July 2009

http://www.world-nuclear-news.org/RS_Restructuring_in_UK_nuclear_regulation_0107092.html

(2) DECC 30th June 2009

http://decc.gov.uk/en/content/cms/consultations/hse_restruct/hse_restruct.aspx

3. Waste Costs Dispute

Martin O'Neill, Chairman on the Nuclear Industry Association, says the figure proposed by the Government for the fixed price it will expect utilities to pay into a waste and decommissioning fund (1) is considerably higher than the industry figure. *"There is a gulf between what companies guess new build waste treatment will cost and the government estimate – a rather large gulf. There is a question over the methodology over how the government sum is arrived at,"* he said. *"The government figure is rather larger than anticipated. There is some anxiety that the government figure adds costs from the weapons programme and there is a degree of smearing the costs. We are a wee bit worried and do not want officials to have a too entrenched position."* (2)

(1) See Financing Arrangement for Waste and Decommissioning Costs <http://www.berr.gov.uk/energy/sources/nuclear/whitepaper/actions/waste-decommissioning/page47722.html>

See also: Funding Provision for Nuclear Waste and Decommissioning, March 2009.

http://www.no2nuclearpower.org.uk/news/id_funding.php

(2) New Civil Engineer 28th Sept 2009

<http://www.nce.co.uk/news/energy/waste-dispute-overshadows-new-nuclear/5208684.article?referrer=RSS>

4. When does Stakeholder Engagement become brainwashing?

The Nuclear Industry Association (NIA) teamed-up with former BNFL Public Relations Agency, Bell Pottinger, (1) to run a specialist seminar on "nuclear stakeholder engagement" - billed as an opportunity for industry to share experiences of stakeholder engagement and highlight examples of best practice. The seminar even had the benefit of Prof. Nick Pidgeon's advice from Cardiff University – lead researcher on last year's study which showed that local communities' support for new reactors is, at best, fragile. (2)

The NIA says public engagement is going to be central to the new build process - public support and buy-in for any major infrastructure project is essential. *"The right programmes of engagement can play a key role in ensuring long-term community acceptance of a nuclear facility"*, and in any case under the Planning Act of 2008 it is now a legal obligation for industry to consult local stakeholders on any new developments. (3)

Of course, the NIA doesn't say what the industry would do if a community rejects a plan to build new reactors in their midst. Ignoring the fact that decisions about new reactors impact on everyone, not just those in the immediate community, several questions arise. Firstly, if the sites have already been 'approved' by the Government by inclusion in a National Policy Statement, what impact can members of the public have in any engagement process? Secondly, the Government was forced to launch a second public consultation on nuclear power in May 2007, after the High Court ruled its previous consultation was procedurally flawed, so how can we have any confidence in local engagement processes? Finally, we know from the Cardiff University study that we cannot assume people living near existing nuclear sites wholeheartedly support new reactors. On top of 16% who remain opposed, as many as 38% are only willing to accept them reluctantly if they are shown to be essential for energy security and tackling climate change. But we also know the Government deliberately skews its information to link nuclear to fears about climate change without bothering to mention the fact that nuclear power can only ever make a small contribution to reducing the UK's CO2 emissions. (4)

If public engagement is truly an essential part of the new build process then the industry needs to be prepared to accept that it may not always get the answer it wants.

Meanwhile, Sir Michael Pitt, chair of the new Infrastructure Planning Commission (IPC), is worried that local authorities have shown little interest in the IPC's work. He says he is trying to dispel a myth that local authorities' input into decisions on national infrastructure, such as nuclear power stations, will decrease under the IPC regime. He fears councils have not got to grips with what he views as their hugely increased role in infrastructure planning under the IPC regime, which he says puts them in a "pivotal position". Councils will have to ensure that public consultations – to be led by developers – are robust and then vouch for their effectiveness. In addition, they must draw up a local impact report, covering the social, environmental and economic impact of the proposal. This is the point at which a council can express a "clear view" about whether it supports or opposes the proposal. (5)

The Local Government Association (LGA) for England and Wales wants a radical re-think of the way

their work for the Infrastructure Planning Commission system is funded. At present, councils can agree funding arrangements with developers, including through planning performance agreements. But the LGA is concerned that opponents of infrastructure schemes will question councils' impartiality if their work is funded by the developer. The LGA had suggested to the Department for Communities and Local Government that councils could take a cut of the fee the IPC charges for applications or add their own top-up fee. (6)

(1) See http://www.spinprofiles.org/index.php/Bell_Pottinger_Communications

(2) Living with Nuclear Power in Britain: a mixed methods study. Nick Pidgeon, Karen Henwood, Karen Parkhill, Dan Venables and Peter Simmons. Cardiff University and the University of East Anglia, September 2008. <http://www.kent.ac.uk/scarr/SCARRNuclearReportPidgeonetFINAL3.pdf>NIA Industry (3) Link 25, July, August, September 2009. <http://www.niauk.org/images/stories/industrylink/pdfs/nia%20industry%20link%2025.pdf>

(4) Is the debate on nuclear being fixed?

http://www.spinprofiles.org/index.php/Is_the_Debate_on_Nuclear_Being_Fixed%3F

(5) Local Government Chronicle 1st October 2009 <http://www.lgcplus.com/news/5006674.article>

(6) Local Government Chronicle 1st October 2009 <http://www.lgcplus.com/news/planning-and-housing/lga-raises-fears-of-massive-council-costs/5006732.article>

5. Nuclear Subsidies

A new report, called Nuclear Subsidies, (1) has been published by the Energy Fair (2) group describing a range of subsidies enjoyed by nuclear power including (a) limitations on liabilities for a Chernobyl-style accident or worse, (b) the way in which the government has to underwrite the commercial risks of nuclear power (including the cost of decommissioning nuclear plants), and (c) the cost of disposing of nuclear waste.

(1) Nuclear Subsidies, Energy Fair, 2009 http://www.mng.org.uk/gh/resources/nuclear_subsidies1.pdf

(2) <http://www.nonukes.org.uk/>

6. Gearing up for the General Election

The Green Alliance has been gearing up for a General Election by producing its Green Standard Manifesto on Climate Change and the Natural Environment. (1) Action in the next Parliament will be crucial if we are to simultaneously reduce our carbon emissions to avoid dangerous climate change, tackle the looming crises of food, energy and water shortages, and improve the resilience of our natural environment. The current mismatch between the scale of the problems and the solutions being offered risks failure at a time of historic responsibility.

As well as avoiding the more serious impacts of climate change, a more sustainable future would present many opportunities for any government that rises to the challenge. Germany, for example, has created 280,000 jobs by becoming world leaders in the manufacture and implementation of low carbon technologies. The UK must grasp the economic benefits this presents by upgrading and strengthening our economy by moving the country onto a low carbon path.

The Alliance puts forward a ten point plan which it hopes all political parties will include in their manifestoes. The plan includes a commitment to the full implementation of the Marine Act, Renewable Energy Strategy, Heat and Energy Saving Strategy, Low Carbon Industrial Strategy, Low Carbon Transport Strategy and meeting the UK's biodiversity targets, and the establishment of new policies to stimulate greater levels of private investment. The Alliance also wants a commitment to launch a nationwide housing retrofit programme by 2011, which will deliver improved energy efficiency and renewable energy systems across the UK. Existing UK housing stock has the potential to reduce its emissions further and faster than most other areas of the economy, and in so doing help save households money on their energy bills. All parties should commit to cutting emissions from the UK's housing stock by over 40% by 2020. As part of a nationwide programme, every home should get a plan to enable householders to achieve band B on an Energy Performance Certificate. This would contain the offer of a financial package, including a low cost repayment scheme such as Pay As You Save to remove up-front costs and guarantee energy bill reductions.

A second Green Alliance report, Working on Change (2) was launched at the TUC congress, revealing a strong appetite across the union movement to lead the drive for a greener and fairer economy. US trade union leader Bob Baugh discusses how US unions have already made waves, securing a

commitment to green stimulus funding in Obama's economic recovery package in a joint effort with environmental organisations. UK unions have been working to grasp the opportunities that climate change presents, calling for investment to ensure that the promised green jobs are delivered and for a fair and equitable transition to a low carbon economy.

Green Alliance Director, Stephen Hale, says the development and mobilisation of new alliances is central to the Alliance's strategy. He hopes the publication will provide a fascinating glimpse into the opportunity that climate change provides for modern trade unionism. And Greenpeace Executive Director, John Sauven, calls for the trade union movement to be involved in building a low carbon economy from the foundation upwards. Unfortunately one of the opportunities, according to Paul Noon of Prospect, is the opportunity to take a lead role in the international nuclear industry, which he says the UK should enthusiastically grab. It might have been an idea for the introduction to point out that if the UK takes this approach it will also offer some great opportunities for nuclear proliferation.

(3)

1) Green Standard Manifesto on Climate Change and the Natural Environment. Green Alliance 2009. http://www.green-alliance.org.uk/uploadedFiles/Publications/reports/green_standard_web.pdf

(2) Working on Change, Edited by Faye Scott, Green Alliance 2009
<http://www.green-alliance.org.uk/uploadedFiles/Publications/reports/Working%20on%20change%20-%20FINAL%20version.pdf>

(3) See Deeply Seriously Mad, NuClear News No.9, August 2009
<http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo9.pdf>

7. Renewable Progress

The construction of offshore wind farms already at the planning stage will deliver up to 10% of the continent's electricity needs, according to a report from the European Wind Energy Association (EWEA). More than 100GW of offshore wind capacity is already planned in Europe, The EWEA has challenged the European Commission to make good on its commitment to support offshore wind with the publication of a detailed 20-year plan outlining how Northern Europe's grid infrastructure should be upgraded to support the 150GW of offshore wind energy that is expected to come online by 2030.

(1)

Oceans of Opportunity, European Wind Energy Association, September 2009
http://ewea.org/fileadmin/ewea_documents/documents/publications/reports/Offshore_Report_2009.pdf
Business Green 15th September 2009.
<http://www.businessgreen.com/business-green/news/2249496/offshore-wind-provide-tenth>

8. Microgeneration Fightback

The Government's Low Carbon Transition Plan expects 30% of UK electricity to come from renewables by 2020 and 10% from nuclear and coal with CCS. But only 2 of the 30% would be from small-scale renewables - whereas the solar PV industry alone expects to provide 12% across Europe. The difference between 2 and 12 would be enough to save us having to replace our nuclear reactors.

(2)

Now the building industry is gearing up to support a greater role for solar. (3) Under the umbrella group 'We Support Solar', the Federation of Master Builders (FMB), National Federation of Roofing Contractors (NFRC), and Electrical Contractors' Association (ECA) have brought together almost 16,000 building companies. (4) The group wants the Government to increase the proposed Clean Energy Cashback rate by 10p per kWh. It says this would create nearly 30,000 jobs in the solar sector by 2014 and deliver more than six times the government's target for solar electricity generation.

The increase would drive demand for 400,000 new solar photovoltaic (PV) installations on homes by 2014. A consultation on Feed-in Tariffs (FiTs) began in July and closes on 15th October, with the tariffs proposed to start in April 2010, running for 25 years. The tariffs would see homeowners with solar PV make up to 36.5p for every unit (kWh) they generate in systems up to 5MW. But an extra 10p could increase the rate of return on solar panels, making it more worthwhile to pay for the technology in return for the money received through the scheme and the cash saved on energy bills.

The 'Small change, big difference' campaign notes that the Government prediction is that solar PV

will meet around 0.5% of UK electricity demand by 2020, but with the additional fee, solar would deliver more than six times this figure.

Simon Hughes, Liberal Democrat Energy and Climate Spokesperson says: “The proposed “cash back” payments are designed to dampen solar PV demand over the next three years rather than to encourage it. This mindset needs to change. Solar power can play a significant role in the “greening” of our towns and cities, while providing tens of thousands of new construction sector jobs.”

Paul Donnelly, spokesman for storage group Big Yellow, which has solar panels on its warehouse in Merton, and could potentially roll out a lot more solar PV, says the current proposal is simply not interesting enough. Asda has also made it clear to Department for Energy and Climate Change (DECC) officials that the proposed tariff is too low for the company to bother investing in putting large arrays on its shop or warehouse roofs. Colin Challen MP, Labour chairman of the Commons All Party Climate Change Group, said the proposed tariff levels would not even deliver the 5-8% return DECC was claiming. (5)

(1) UK Low Carbon Transition Plan, DECC, July 2009. [http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=White Papers\UK Low Carbon Transition Plan WP09\1_20090715190000_e_@@_DECCWPUKLCTransitionPlan.pdf&filetype=4](http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=White%20Papers\UK%20Low%20Carbon%20Transition%20Plan%20WP09\1_20090715190000_e_@@_DECCWPUKLCTransitionPlan.pdf&filetype=4)

(2) See Long Live the Local Energy Revolution, NuClear News No.9 <http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo9.pdf>

(3) New Energy Focus 23rd September 2009 http://www.newenergyfocus.com/do/ecco.py/view_item?listid=1&listcatid=32&listitemid=3025§ion=Solar

(4) <http://wesupportsolar.net/>

(5) Guardian 5th October 2009 <http://www.guardian.co.uk/business/2009/oct/05/environment-clean-energy-cashback>

9. Government Scientific Adviser goes for Big, Centralised Power.

Professor David MacKay, the government’s chief scientific adviser on climate change, has proposed a quadrupling of Britain’s nuclear power generation. He says he has calculated that renewable energy sources such as wind and tidal power will never provide more than a fraction of Britain’s electricity needs. (1)

Britain emits greenhouse gases equivalent to 680m tons of CO₂ a year. The government has pledged to cut this to 140m tons by 2050 and has said it wants nuclear power to play a part. There are currently 10 ageing nuclear stations in Britain, with 12 gigawatts of generating capacity — about 15% of Britain’s needs. Two are due to close next year, the rest, apart from Sizewell B, by 2023. MacKay’s calculations, set out to an audience of Cambridge academics, are based on a new generation of nuclear power stations supplying 40 to 50 gigawatts of power by 2050.

At the heart of his thinking lies a prediction that, by 2050, Britain will need three times more electricity-generation capacity than it has now. This is partly because the only way to cut the surging emissions from road transport — roughly a third of all UK emissions — is to make most vehicles electrically propelled. Millions of electric vehicles would need regular recharging. MacKay also wants to see an end to the use of gas for central heating and the replacement of boilers with heat pumps that extract heat from the atmosphere. They run on electricity. (2)

One commentator, who has solar panels and a wood-burning stove wrote in The Times:-

“The frightening thing about renewables is that they can be local and the “power companies” will no longer be needed to supply energy for households. That is why there is a big push for nuclear, so the power industry stays in control.”

As we can see above (Microgeneration Fightback), microgeneration could provide around 12% of our electricity by 2020, and research by the Energy Saving Trust shows that it could provide 30-40% by 2050. (3)

One problem which David Mackay has ignored is that while reactors themselves produce no direct CO₂ emissions, the fuel cycle does (especially mining, milling, and fuel enrichment). The industry often claims the lifecycle emissions from nuclear plants, including ancillary fuel fabrication and (in some studies) waste disposal, is 1-3 grams of CO₂e/kWh, making them better than renewables and other alternatives. But a paper by Benjamin Sovakool from the National University of Singapore, which looked at a number of life cycle studies concluded that typical lifecycle emissions from nuclear

plants appear to be about 66 gCO₂e/kWh. (4) Although that's less than the estimate of 112–166 g CO₂e/kWh produced by Storm van Leeuwen and Smith (see www.stormsmith.nl), it is more than 10 times industry estimates, and worse than all the renewable alternatives, including solar PV. Although there may be no danger of uranium running out, ore grades will decline over time, and CO₂ emissions from uranium mining and processing will rise gradually. When very poor ores are exploited, the CO₂ emissions will rise exponentially and surpass that of gas-fired electricity generation.

As with the Malcolm Wicks report on Energy Security (5) Mackay does not mention combined heat and power (CHP), presumably because he wants to see an end to burning gas. Yet the recent report by Pöyry Energy Consulting showed that industries across the UK could generate as much electricity as 10 nuclear power stations and halve gas imports by installing or extending CHP plants. Poyry found nine sites where CHP could be applied or extended. Currently 5.5GW of electricity is produced by CHP plants, but Poyry suggests there could be up to 16GW more. (6) And if micro combined heat and power (micro-CHP) boilers were used to replace all the conventional domestic central heating boilers which need to be replaced between now and 2020, we could have the equivalent of ten new reactors powered by micro CHP. (7) If we did both, along with implementing the National Grid company's plans for green gas - gas from waste could be heating almost half UK homes – we would dramatically decrease UK's gas consumption much more quickly than we could build new reactors. (8)

The Greenpeace and European Renewable Energy Council, Energy [R]evolution scenario describes a development pathway to convert global energy from the present unsustainable pathway into a sustainable energy supply. It recommends the use of gas as an interim fuel. The increased use of combined heat and power generation (CHP) improves the supply system's energy conversion efficiency, using natural gas but also moving to biomass. In the long term, the decreasing demand for heat and the large potential for producing heat directly from renewable energy sources limits the further expansion of CHP. (9)

The danger of going down the centralized nuclear route, with domestic heating systems being converted from gas central heating to electric heat pumps, is that, as several scenario-based studies have shown, we may end up increasing dependence on gas imports. The focus would be very much on getting a large nuclear programme off the ground, rather than on improving efficiency of a house-by-house basis. So, because electricity demand increases almost as fast as we build new reactors, fossil fuel consumption in the electricity sector continues increasing. (10)

(1) Sunday Times 4th October 2009

<http://www.timesonline.co.uk/tol/news/politics/article6860181.ece>

(2) Sunday Times 4th October 2009

http://www.timesonline.co.uk/tol/comment/leading_article/article6860191.ece

(3) Potential for Microgeneration: Study and Analysis, EST, eConnect, Element Energy, November 2005. <http://www.berr.gov.uk/files/file27558.pdf>

(4) Energy Policy 36 (2008) pp2940-2953. Thanks to Renew On-Line No.77 Jan/Feb 2009 for highlighting this article. http://eeru.open.ac.uk/renew_online.htm

(5) See Energy Security – Ideal opportunity for joined up thinking. NuClear News No.10

<http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo10.pdf>

(6) Securing Power: Poyry report for Greenpeace: Summary. http://www.greenpeace.org.uk/files/pdfs/climate/industrialCHP_summary.pdf

(7) Nuclear Energy and Micro-CHP. Micro-CHP blog, 10th January 2008.

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

(8) Half Britain's Homes could be Heated by Renewable Gas, National Grid Press Release, 2nd February 2009. <http://www.nationalgrid.com/uk/Media+Centre/PressReleases/02.02.09.htm>

(9) Energy Revolution, Greenpeace, EREC, October 2008.

<http://www.greenpeace.org/raw/content/international/press/reports/energyrevolutionreport.pdf>

(10) See: The Future of Nuclear Power, Massachusetts Institute of Technology 2003. <http://web.mit.edu/nuclearpower/pdf/nuclearpower-full.pdf>

See pages 26 & 27 of Smith B, Insurmountable Risks, IEER 2006.

PB Power, Powering London into the 21st Century, Greenpeace UK and the Mayor of London, March 2006. <http://www.greenpeace.org.uk/files/pdfs/migrated/MultimediaFiles/Live/FullReport/7474.pdf>

PB Power, Powering Edinburgh into the 21st Century, Greenpeace UK, WWF Scotland and City of Edinburgh Council, November 2006. <http://www.greenpeace.org.uk/files/pdfs/migrated/MultimediaFiles/Live/FullReport/8056.pdf>

10. Carbon Capture – Longannet loses out.

Longannet power station in Fife, which had been in the running to receive a share of £1 billion from the European Commission to develop carbon capture and storage, has lost out. The European Commission has named Hatfield in Yorkshire as the only successful UK bid, along with six other plants in Germany, France, the Netherlands, Poland, Spain and Italy. The failure to secure the EU funding has raised question marks over the prospect of Longannet winning a crucial £1 billion funding from a Department for Energy and Climate Change competition.

Richard Dixon, director of WWF Scotland, which recently published a study identifying Longannet as the best option in the UK competition for CCS funding, said: *“It is disappointing Longannet has not been chosen this time around. We sincerely hope it will get some form of support to properly test this technology soon, whether it is from Europe or as a winner of the UK government’s own CCS competition.”*

It is understood that Hatfield was chosen because the proposal was for a pre-combustion system, in which the carbon is captured before the coal gas is burned. There were few pre-combustion systems among the bidders while there were a number of post-combustion systems such as Longannet, and the European Commission wanted to have an even spread of options. However, it is also understood that next year a further £6bn is expected to be allocated to develop CCS systems. (1)

According to the WWF report, Carbon Choices, the difference between choosing Longannet and any of the other sites could be as much as 55 million tonnes of CO₂ over the lifetime of the project. If the technology is tested on a purpose built new coal power station as proposed at Kingsnorth in Kent, or Tilbury in Essex overall emissions from the power sector could increase by 32 million tonnes CO₂ between 2014 and 2025 - roughly equivalent to running an extra 4.5 coal-fired power stations for a year. By comparison, fitting carbon capture to the existing power station at Longannet in Fife would reduce emissions by 14.5 million tonnes of CO₂ over the same period - equivalent to turning off 2 coal-fired power stations for a year. (2)

(1) Scotsman 5th October 2009

<http://thescotsman.scotsman.com/latestnews/Longannet-plant--loses-out.5702484.jp>

(2) Carbon Choices, WWF, May 2009

http://assets.wwf.org.uk/downloads/carbon_choices__final_.pdf

11. Three legged hobble to build new reactors.

According to the Adam Smith Institute recent events may have dented the prospects for UK new nuclear-build. In Germany, the success of the CDU/CSU and FDP coalition means EOn and RWE may well undertake investment at their existing nuclear plants to boost output. Their interest in participating in UK new nuclear-build may wane. And, in EOn’s case, with net debt of €40 billion, reducing capital expenditure is the compelling priority. At EdF, the new Chairman, Henri Proglio, must reduce EdF’s burgeoning debt. Consequently, EdF’s hitherto robust commitment to new nuclear-build in the UK may erode. After all, it will not yield any revenues until 2018 at the earliest. No surprise that the UK new nuclear-build programme is wobbling.

EDF is now saying it is open to nuclear partnerships in the UK, after several reports that the company is seeking to sell another 20% stake in British Energy. (2) It is already planning to sell its electricity network to slash debt. It hopes the sale of EDF Energy, which supplies eight million UK homes and businesses with power will net around £3.5 billion. (3)

The Daily Telegraph described the UK race to build new reactors as *“more of a three-legged hobble ... Companies hoping to get involved in building a new fleet of power stations are far from hopeful that the necessary financing and regulatory clearances will be in place to bring the first ones on tap by 2017, as hoped by the Government.”* (4)

(1) Adam Smith Institute 2nd Oct 2009

<http://www.adamsmith.org/blog/regulation-and-industry/new-uk-nuclear-build?-200910024214/>

See also Stop Hinkley Press Release 2nd Oct 2009: <http://bristol.indymedia.org/article/691121>

(2) Reuters 4th October 2009

<http://uk.reuters.com/article/idUKL42330620091004?rpc=401&>

(3) Telegraph 3rd October 2009

<http://www.telegraph.co.uk/finance/newsbysector/energy/6256268/EDF-starts-4bn-auction-for-UK->

electricity-arm.html

(4) Telegraph 18th September 2009

<http://www.telegraph.co.uk/finance/comment/damianreece/6207810/Babcock-is-right-to-look-to-nuclear-future.html>

12. Hunterston leak

Thousands of litres of radioactive waste have accidentally leaked into the Firth of Clyde from the Hunterston nuclear power station in breach of pollution law. The station has been accused by the Scottish Environment Protection Agency (Sepa), of breaking six legal promises it made to prevent people and the environment from being contaminated by radioactivity. Sepa says it is “*deeply concerned*” about the leak. Sepa’s radioactive substances specialist, Keith Hammond, has written a stern “*final warning letter*” to Hunterston.

Sunday Herald, 20 September 2009 <http://www.robedwards.com/2009/09/revealed-radioactive-waste-leak-from-hunterston.html>

13. Professor Resigns

Recently retired Open University Professor of Technology Policy, David Elliott has resigned from the Labour Party because of the Government’s support for nuclear power. Nuclear Power is not the answer to climate change, he says, indeed it could well undermine the development of the real solutions – energy efficiency and renewable energy. Elliott says he believes the policy will lead to major long-term global security problems, and undermine energy security and environmental sustainability, since money, manpower and other resources will be diverted away from renewables and energy efficiency. (1)

Elliott points out that last year solar PV generation capacity grew by 70% around the world, wind power by 29% and solar hot water increased by 15%. By 2008, renewables represented more than 50% of total added generation capacity in both the US and Europe, ie more new renewables capacity was installed than new capacity for gas, coal, oil, and nuclear combined; with no emissions, no wastes and no security issues to worry about – and no worries about fuel running out, or increasing in price.

If we have a large amount of nuclear on the grid and the planned large wind-power input, then during low-energy demand periods – particularly at night in summer – we will have more electricity than needed, and one or other will have to give way. Since the output from nuclear plants cannot be varied easily and regularly without economic and operational penalties, we would have to curtail the wind output. How rational is that, he asks? (2)

(1) Guardian 9th Sept 2009 <http://www.guardian.co.uk/environment/2009/sep/09/nuclear-power-labour-resign>

(2) Guardian 16th Sept 2009 <http://www.guardian.co.uk/environment/2009/sep/16/renewables-nuclear-wind-power>