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1. What is NuClear News?

The media likes to give the impression there is a reluctant acceptance of the need for nuclear power in order to tackle climate change. Yet building more reactors is one of the worst possible responses to climate change, and there is growing evidence it will actually worsen the problem compared with spending the same money and time on alternative options. (1)

NuClear News is a new, free monthly newsletter designed to keep climate campaigners informed about nuclear developments in the UK, and anti-nuclear campaigners about climate issues.

It is not surprising, when a central theme of the Government's and nuclear industry's strategy to convince people to embrace a new generation of reactors is to characterise it as a solution to climate change, that people actually start to believe it. A bit more of a shock, perhaps, that commentators like George Monbiot say he has "now reached the point at which I no longer care whether or not the answer is nuclear", (although he does wrap this statement up with loads of caveats) (2) and a few others, like climate change writer Mark Lynas, say Greens must learn to love nuclear power. (3) Over coming months at NuClear News we aim to show why we should not learn to love, or even reluctantly accept nuclear power, because it will seriously damage efforts to tackle climate change.

The Government has stated its intention to promote the construction of at least eight new reactors before 2020, and it hopes these will be approved within the next two years. Anti-nuclear groups are springing up around the anticipated sites for new reactors, and activity can be expected to increase in the run up to an announcement on sites in mid-2009. The most likely sites at the moment appear to be Sizewell in Suffolk, Hinkley in Somerset, Bradwell in Essex, Dungeness in Kent, Oldbury in Gloucestershire and Wylfa on Anglesey. (4)

At the same time groups are also being established around proposed new coal-fired power stations and open cast coal mines. (5) Our view at NuClear News is that both new coal stations and new reactors would be a disaster for the climate.

We hope NuClear News can provide new internet-based ways of promoting understanding, co-operation, co-ordination, information sharing and experience between anti-nuclear community groups and activists working on climate change issues. This way we can avoid one part of the environmental movement damaging another inadvertently or otherwise. We firmly believe the best way for environmental campaigners to succeed in promoting a sustainable energy strategy is by activists, researchers and campaigners working together.



- (1) Lovins, A and Sheikh, I. The Nuclear Illusion, http://rmi.org/images/PDFs/Energy/E08-01_AmbioNuclIllusion.pdf
- (2) Monbiot, G. The stakes could not be higher: everything hinges of stopping coal. Guardian, 5th August 2008 <http://www.guardian.co.uk/commentisfree/2008/aug/05/kingsnorthclimatecamp.climatechange>
- (3) Lynas, M. Why Greens must learn to love nuclear power. New Statesman, 18th September 2008. <http://www.newstatesman.com/environment/2008/09/nuclear-power-lynas-reactors>
Greenpeace's response to Make Lynas' article is available here: <http://www.marklynas.org/2008/11/14/nuclear-power-greenpeace-responds>
- (4) The www.no2nuclearpower.org.uk website will carry news from potential nuclear sites in its new "View on the Ground" section: <http://www.no2nuclearpower.org.uk/ground/index.php>
- (5) See for example: <http://thecoalhole.org/campaigns/>

2. Support around nuclear sites fragile.

It is generally assumed that people living near existing nuclear sites will be more supportive of new reactors than people elsewhere. (1) Although a recent opinion survey seems to confirm this, as much as 38% of the population living in close proximity to reactors are only willing to accept them reluctantly if they are essential for energy security and tackling climate change. (2) (3) The researchers concluded support for new reactors is "potentially quite fragile". (4)

Nuclear power's contribution to reducing carbon emissions can only ever be quite small – perhaps around 4% if existing reactors are replaced. (5) But if the huge sums of money expected to be spent on new reactors were spent on alternatives such as energy efficiency and combined heat and power (CHP) plants this could save between two and eleven times more carbon dioxide per pound spent. (6) So, if information about the tiny impact of nuclear on climate change ever got out, support around potential sites could collapse. (7)

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. (8) But even after being ordered by the Court to re-run its consultation, the second one was found by twenty senior academics to have deliberately skewed the results by linking nuclear to fears about climate change, and to have buried the fact that nuclear power can only make a small contribution to reducing the UK's CO2 emissions. The exercise seemed designed to come up with a popular mandate to proceed with nuclear power by giving the public biased and incomplete information. (9) (10)

Furthermore, in October 2008 there was a further damning rebuke for the government's objectivity. The Marketing Research Standards Board, which sets the standards for opinion research, found, after a year long investigation, that the market research company Opinion Leader Research, which conducted much of the public opinion work on nuclear power for the Government, had breached its Code of Conduct. The board concluded that Opinion Leader "information was inaccurately or misleadingly presented, or was imbalanced, which gave rise to a material risk of respondents being led towards a particular answer". (11)

- (1) A longer version of this article appears at: http://www.nuclearspin.org/index.php/Is_the_Debate_on_Nuclear_Being_Fixed
- (2) Randerson, J. Nuclear plants' neighbours back expansion, Guardian September 30, 2008 <http://www.guardian.co.uk/commentisfree/2008/aug/05/kingsnorthclimatecamp.climatechange>
- (3) Pidgeon, N, et al. Living with Nuclear Power in Britain: A Mixed-methods Study, Cardiff University and the University of East Anglia, September 30, 2008 <http://www.kent.ac.uk/scarr/SCARRNuclearReportPidgeonetFINAL3.pdf>
- (4) Kinver, M. Mixed views on new nuclear build, BBC, September 30, 2008 <http://news.bbc.co.uk/1/hi/sci/tech/7642067.stm>
- (5) Adam, D. Nuclear Power Cannot Tackle Climate Change, The Guardian, 17th January, 2006 <http://www.guardian.co.uk/environment/2006/jan/17/nuclearindustry.energy>
- (6) Lovins, A. Amory Lovins on Energy, CNN, 16th October, 2008 <http://edition.cnn.com/2008/WORLD/americas/10/10/amory.lovins/>
- (7) See Is the Debate on Nuclear Being Fixed? For further discussion http://www.nuclearspin.org/index.php/Is_the_Debate_on_Nuclear_Being_Fixed
- (8) DTI, The Future of Nuclear Power: the role of nuclear power in a low carbon economy, DTI, May 2007. <http://www.berr.gov.uk/files/file39197.pdf>
- (9) Rush, J. Spinning a nuclear consultation, Channel 4 News, September 19, 2007. <http://www.channel4.com/news/articles/society/environment/spinning+a+nuclear+consultation/821457>
- (10) Dorfman, P. (Ed) Nuclear Consultation: Public trust in Government, Nuclear Consultation Working Group, 2008. <http://www.nuclearconsult.com/>
- (11) MRS Market Research Standards Board, Complaint by Greenpeace, October, 2008 <http://www.greenpeace.org.uk/files/pdfs/nuclear/MRSfindings.pdf>

3. 2009 – A crucial year to save the planet.

There is just one year to go until the UN Framework Convention on Climate Change (UNFCCC) Conference in Copenhagen in December 2009 when we need the global community to agree an ambitious and fair global climate treaty.

December 1st was the first day of a crucial preparatory conference held in Poznan, Poland - a key milestone on the road to successfully securing a replacement for the Kyoto Treaty. The conference needs to agree a plan of action and programmes of work for the final year of negotiations and build momentum towards an agreed outcome at Copenhagen.

WWF explains in its briefing for Poznan that greenhouse gas (GHG) emissions must peak well before 2020 if we are to have a decent chance of curtailing global warming below the crucial 2°C. (1) Greenpeace says we are currently on a path to a 7°C temperature rise by the end of the century – GHG emissions must peak by 2015 if we are to avoid climate catastrophe. (2)

Unfortunately, the nuclear industry is threatening to undermine efforts to protect the climate by diverting time and resources away from more effective, clean solutions. It is using climate change as a vehicle to win political and financial support for its dirty and dying sector. (3) Even a massive, four-fold expansion of nuclear power by 2050 would provide only marginal reductions (4%) in greenhouse gas emissions, when we need global cuts of 50 - 80% by 2050. And Nuclear energy's 'contribution' to fighting climate change would come too late (long after 2020), when we need global emissions to peak at 2015. (4)

The nuclear industry is lobbying for nuclear power to become eligible for the Kyoto Protocol's flexible mechanisms, such as the Clean Development Mechanism (CDM) which allows companies to undertake projects in countries without a Kyoto target which reduce their emissions of greenhouse gases to help meet their own targets. (5) More than 200 NGOs around the world, including the World Information Service on Energy (WISE), FoE International and Greenpeace International, have signed a statement stating that nuclear has no place in the Kyoto Protocol Financial Mechanisms and is a dangerous obstacle to solving climate change. The Statement will be presented to the Poznan meeting. (6)

(1) Cracking the Climate Nut at COP 14, WWF, December 2008.

http://assets.wwf.org.uk/downloads/wwf_poznan_paper_web_1.pdf

(2) Poznan 2008: Time to get serious about climate change, Greenpeace International, November 2008

<http://www.greenpeace.org/raw/content/international/press/reports/poznan-2008-time-to-get-serio.pdf>

(3) See for example International Atomic Energy Agency Press Release 1st Dec 2008

<http://www.iaea.org/NewsCenter/News/2008/ccconf.html>

(4) Getting Serious About Nuclear Power: Too little, too late, too expensive and too dangerous, Greenpeace International, November 2008. <http://www.greenpeace.org/raw/content/international/press/reports/getting-serious-about-nuclear.pdf>

(5) See <http://www.defra.gov.uk/environment/climatechange/internat/kyotomech/cdm.htm>

(6) See WISE website: <http://www10.antenna.nl/wise/>

4. Facilitative Actions.

On 10th January 2008 when the Government confirmed that new reactors should go-ahead it said it would carry out 'facilitative actions' to speed up the construction of new reactors. (1) The Government's timetable, for example, shows a Justification process, a Generic Design Assessment, a National Policy Statement, a Strategic Siting Assessment, and work on Nuclear Waste and Decommissioning, all at various stages of development between now and Autumn 2009. (2) The Government's Office of Nuclear Development (OND), with staff drawn from both the civil service and industry, will be working to facilitate new nuclear investment in the UK. (3)

For a full briefing on all the facilitative actions see the Nuclear Free Local Authorities' New Nuclear Monitor No.14 <http://www.nuclearpolicy.info/docs/nuclearmonitor/NNM14.pdf>

(1) BERR Press Release 10th January 2008, <http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=343892&NewsAreaID=2&NavigatedFromDepartment=True>

(2) New Nuclear: Situation Report, Talk by Mark Higson, Chief Executive of the Office of Nuclear Development, to the first meeting of the Nuclear Development Forum 18th September 2008. <http://www.berr.gov.uk/files/file48485.pdf>

(3) BERR Press Release 12th June 2008 <http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=370431&NewsAreaID=2&NavigatedFromDepartment=True>

5. Justification

The next 'facilitative action' to go out to public consultation will be the Justification Process – the consultation is expected to start in mid-December. In short, this is the process whereby the Secretary of State for Energy and Climate Change assesses whether new reactors can be justified considering the health detriments versus the advantages.

The Justification Process is required under European Union regulations. Companies hoping to build a nuclear facility must show the benefits outweigh the potential health risks. In March 2008 the Government issued Guidance and invited nuclear companies to put forward new reactor designs for a justification decision. (1) The whole process is expected to take about 18 months to complete, taking us up to the middle of 2009. (2)

An application was made by the Nuclear Industry Association (NIA) on behalf of those utilities interested in developing new reactors. (3) At the end of October 2008 the new Department of Energy and Climate Change (DECC) wrote to NIA seeking further information. (4) In mid-December DECC is expected to publish a package of information, including a draft decision document for consultation. (5)

Central to the issue are the health risks of new reactors - from routine discharges of radioactivity into the environment, from accidents, from terrorist attacks, and the health risks of spent fuel stores, and transporting nuclear waste around the country.

(1) The Justification of Practices involving Ionising Radiation Regulations 2004: Guidance for applications relating to new nuclear power, BERR, March 2008.

<http://www.berr.gov.uk/files/file45384.pdf>

Also see The Justification of Practices involving Ionising Radiation Regulations 2004: Guidance on their application and administration, DEFRA, May 2008.

<http://www.defra.gov.uk/environment/radioactivity/government/legislation/pdf/justification-guidance.pdf>

(2) Forbes 31st March 2008 <http://www.forbes.com/markets/feeds/afx/2008/03/31/afx4833538.html>

(3) NIA Justification Application

<http://www.defra.gov.uk/environment/radioactivity/government/legislation/pdf/nia-application.pdf>

(4) Notice under Regulation 16 of the Justification of Practices involving Ionising Radiation Regulation 2004, DECC 30th October 2008. <http://www.berr.gov.uk/files/file48750.pdf>

(5) <http://www.berr.gov.uk/whatwedo/energy/sources/nuclear/whitepaper/actions/justification/page45386.html>

6. Health Studies

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

Westmorland Gazette 17th Oct 2008 http://www.thewestmorlandgazette.co.uk/news/3765532.Scientist_warns_of_cancer_risk_from_nuclear_facilities/

New Scientist 26th April 2008

<http://www.newscientist.com/article/mg19826535.300-comment-lets-take-cancer-clusters-seriously-this-time.html>

7. French Energy

In a deal worth a massive £12.5 billion, British Energy, the company that operates most of the UK's nuclear power stations, has agreed to a takeover by Electricité de France (EDF). If all goes according to plan, Britain's nuclear electricity business will become the property of the state-owned French company, and the world's biggest nuclear generator. (1)

Faith in France's nuclear competence has been badly shaken by a spate of accidents in recent months (2) and by long delays in the construction of a flagship reactor. In perhaps the most serious accident, nearly a hundred workers were contaminated with radioactive cobalt after an old pipe leaked. It happened on 23rd July 2008 at a major nuclear complex at Tricastin, near Avignon in the south of France. (3)

The French designed European Pressurised Water Reactor (EPR) is the flagship of the so-called “nuclear renaissance”. But construction of the EPR has only started in Finland and France, and both experiences have been disastrous. (4) Olkiluoto 3 in Finland, is now three years behind schedule and will not come on stream until 2012. It was originally budgeted at €3bn, but is now expected to cost at least €4.5bn. (5) Nine months into construction, Europe’s second EPR being built in France was already nine months behind schedule, and is not expected to begin operation until 2013, rather than 2012 as originally planned. (6) The cost of power produced by will be around 20% more than planned - around 55 euros a megawatt hour, instead of the 46 euros announced when the project was launched in May 2006. (7)

France is seen as a world leader on nuclear power because it has 58 nuclear reactors producing about 80% of the country’s electricity, a higher proportion than any other country. But that doesn’t make it energy independent. Nuclear electricity makes up only 16% of all the energy used by French consumers, while fossil fuels continue to provide over 70%. Energy for transport and heating comes from oil, gas and coal, some of which is imported. The uranium used to fuel nuclear reactors is also all imported. The French government’s proclaimed goal from 1974 to render France independent from oil through the development of nuclear energy has failed. In fact the average French citizen consumes more oil than its neighbours and pays a higher energy bill than ever before. Numerous households cannot afford to pay for their energy bills. France remains as dependent on fossil fuels as most of the other European countries. (8)

(1) Edwards, R. *British Energy become French*, House Magazine 24th November 2008

<http://www.robedwards.com/2008/11/british-energy-becomes-french.html#more>

(2) For details of four accidents earlier this year see

<http://www.no2nuclearpower.org.uk/news/daily08/daily.php?dailynewsid=207>

(3) Edwards, R. *French nuclear power falters*, House Magazine 24th November 2008

<http://www.robedwards.com/2008/11/french-nuclear-power-falters.html#more>

(4) For more details see *French EPR: an absolute disaster*. http://www.no2nuclearpower.org.uk/reports/French_EPR.php

(5) *Guardian* 18th Oct 2008 <http://www.guardian.co.uk/environment/2008/oct/18/nuclearpower>

(6) *Greenpeace International* 27th August 2008 <http://www.greenpeace.org/international/press/releases/greenpeace-reaction-to-france>

(7) *Reuters* 2nd December 2008

<http://www.reuters.com/article/rbssIndustryMaterialsUtilitiesNews/idUSB29884120081202?rpc=401>

(8) Schneider, M, *Nuclear Power in France: Beyond the Myth*, *European Greens*, December 2008

http://www.greens-efa.org/cms/topics/dokbin/258/258614.beyond_the_myth@en.pdf

8. Obsolete before they open?

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. (1) 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. (2) First Solar, the largest manufacturer of thin film solar panels, says its products will generate electricity in sunny countries as cheaply as large power stations by 2012. (3)

Arjun Makhijani of the Institute for Energy and Environment Research in Maryland, says electricity costs from new reactors planned in the US are estimated at 10 to 17 cents per kilowatt-hour. This compares with 8 to 12 cents for wind. And new large solar plants in California are expected to yield electricity prices about the same. (4)

Another innovative new technology, micro combined heat and power (micro-CHP), has significant potential to reduce carbon emissions, would replace conventional domestic central heating boilers, and produce electricity as well as hot water for heating. Whilst new reactors are not expected to produce any power until around 2020 at the earliest, micro-CHP can be installed 1kW at a time, producing power from day one. The Baxi Group expects to introduce a micro-CHP boiler onto the UK market in 2009. (5) In terms of capacity, if all domestic gas boilers are replaced (as they reach the end of their useful life) with micro-CHP, the UK could in theory install 1.5 million units every year. That is equivalent to 1.5GWe, or not far off the size of one nuclear power station in 2010, another in 2011 etc. By 2020, we could have the equivalent of ten new 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. (6)

(1) USDoE Press Release 8th March 2007 <http://www.energy.gov/news/4855.htm>

(2) Science for Democratic Action, January 2008. Vol15 No.2 <http://www.ieer.org/sdfiles/15-2.pdf>

(3) Goodall, C, *The 10 big energy myths*, *Guardian* 27th November 2008

<http://www.guardian.co.uk/environment/2008/nov/27/renewableenergy-energy>

(4) Makhijani, A. Nuclear isn't necessary, Nature 2nd Oct 2008 <http://www.nature.com/climate/2008/0810/full/climate.2008.103.html>

(5) Baxi takes bow with CHP champions, Heating and Ventilating News 20th November 2008 <http://www.heatingandventilating.net/news/news.asp?id=5874&title=Baxi+takes+bow+with+CHP+champions+>

(6) Nuclear Energy and Micro-CHP. Micro-CHP blog, 10th January 2008. <http://microchp.blogspot.com/2008/01/nuclear-energy-and-micro-chp.html>

9. Low Carbon Britain

Professor Ian Fells - the Today Programme's favourite 'expert' - has been amongst those arguing, that future energy shortages in Britain cannot be solved by developing renewable sources alone. (1) He says he can't do the sums any way without having nuclear in the mix. The Centre for Alternative Technology has done the sums and found that through a radical rethink of how we use energy and massive investment in renewables, the UK could meet its energy needs without fossil fuels or nuclear. (2) "The sums" are contained in their report, Zero Carbon Britain. (3)

A report by Pöry Energy Consulting, which shows that industries across the UK could generate as much electricity as 10 nuclear power stations and halve gas imports by installing or extending combined heat and power (CHP) plants. Pöry found nine sites where CHP could be applied or extended. Currently 5.5GW of electricity is produced by CHP plants, but Pöry suggests there could be up to 16GW more. (4)

If the government is serious about renewables and energy efficiency, Britain doesn't need to build major new power stations, according to another report by Pöry. If the UK achieves its commitment to meet EU renewable energy targets and its own ambitious energy efficiency action plan, then major new power stations (coal, gas or nuclear) would not be needed to meet electricity requirements up to at least 2020. (5)

(1) Fells Associates Press Release 17th Sept 2008

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

(2) Randall, A. Renewables do add up, Guardian 18th Sept 2008 <http://www.guardian.co.uk/commentisfree/2008/sep/18/energy.energy>

(3) <http://www.zerocarbonbritain.com/>

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

(5) Pöry, Implications of the UK meeting its 2020 Renewable Energy Target, Greenpeace and WWF, August 2008 <http://www.greenpeace.org.uk/files/pdfs/climate/meeting2020renewabletarget2.pdf>

