



NuClear News
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1. Nuclear Sites Nominated

The Government has published a list of eleven sites which could be potential hosts to a new nuclear power station. (1) The sites include virtually every nuclear reactor site in England and Wales, as well as the two green field sites in Cumbria at Kirsanton and Braystones. (See [NuClear News No.5](#)) (2)

Energy and Climate Change Minister, Ed Milliband has been encouraging members of the public to comment on the nominated sites before 14th May. (3) The sites will be assessed by Government using the information received during the consultation with advice from specialists such as the Nuclear Installations Inspectorate (NII), the Environment Agency and others. The sites will be assessed against the conditions for nominating and the exclusory and discretionary criteria. (4) After the assessment, which is expected to be done over the summer, sites that are found to be suitable will be listed in the draft Nuclear National Policy Statement (NPS) which will be published around September. There will then be a period of further consultation and parliamentary scrutiny.

The Government is proposing to publish an Environmental Report alongside the draft Nuclear NPS as part of a Strategic Environmental Assessment (SEA) of the NPS. An SEA is required to identify reasonable alternatives to a plan and assess the likely effects on the environment. The Government's response to the Strategic Siting Assessment consultation (5) highlighted the fact that several respondents were particularly interested in how alternative energy generation technologies will be addressed as part of the environmental assessment. But it simply said it "*continues to believe that it is in the public interest that new nuclear power stations should have a role to play in this country's future energy mix alongside other low-carbon sources*".

Responders to this consultation should ask the Government when it is going to assess an alternative energy strategy based on energy efficiency, renewable and decentralized energy.

Nuclear Waste Advisory Associates (6) urged the public to respond because the new sites will inevitably become long term stores for hazardous radioactive waste over at least a century, possibly longer. Spent nuclear fuel will have to sit in ponds or in casks at the sites until a nuclear waste repository site is agreed to by another local community, demonstrated to be safe, built and made ready for acceptance of waste. Not only would this require the completion of an engineering project second only in scale to the Channel Tunnel, but in addition, the calculation - somehow - of what would happen to the wastes hundreds of thousands of years into the future. After just two or three or more generations, climate change will have taken its toll, sea-levels will have risen, possibly by well over 1 metre, and future generations will be left to look after the waste this generation has decided to create and constantly guard it from terrorist activity for every hour of every day.

**For more information on responding see:
Nuclear Free Local Authorities Briefing.**

<http://www.nuclearpolicy.info/docs/nuclearmonitor/NNM16.pdf>

Greenpeace Briefing.

<http://www.greenpeace.org.uk/files/pdfs/nuclear/NuclearSitingConsultation.pdf>

Also see NuClear News No.5 (Sea-level rises likely to be worse than predicted)

And Emergency Planning (below).

(1) DECC Press Release 15th April 2009 <http://www.decc.gov.uk/en/content/cms/news/pn042/pn042.aspx>

(2) The Government's map of the sites is available here: <http://www.nuclearpowersiting.decc.gov.uk/nominations/> and an interactive map of the sites is available here: <http://www.guardian.co.uk/environment/interactive/2009/apr/15/nuclear-power>

(3) To comment you need to register here:

<http://www.nuclearpowersiting.decc.gov.uk/signup/>

(4) The criteria against which sites will be assessed are listed here: <http://www.nuclearpowersiting.decc.gov.uk/criteria/>

(5) Towards a Nuclear National Policy Statement: Government response to consultations on the Strategic Siting Assessment process and siting criteria for new nuclear power stations in the UK; and to the study on the potential environmental and sustainability effects of applying the criteria. DECC Jan 2009. <http://www.berr.gov.uk/files/file49865.pdf> para 6.9

(6) <http://www.nuclearwasteadvisory.co.uk/>

2. Emergency Planning

The Government no longer considers it is necessary to apply the remote siting criteria, which were applied to both the first generation Magnox reactors and proposals to build Pressurised Water Reactors (PWR) at Sizewell B and Hinkley Point. Instead the semi-urban criteria, which were applied to second generation AGRs will be used, despite the fact that no reactors of the designs proposed for the UK have been completed anywhere in the world.

A major study of reactor hazards by leading scientists, published by Greenpeace in April 2005, concluded that the new types of reactors currently being assessed under the Nuclear Regulators' (Nuclear Installations Inspectorate and Environment Agency) Generic Design Assessment, although heralded as fundamentally safe, have their own specific safety problems. In addition they cannot be sufficiently protected against a terrorist threat. There are several scenarios – aside from a crash of an airliner on the reactor building – which could lead to a major accident. (1)

New risks have emerged since the last reactors were built in this country, such as the risk of terrorist attack, flooding due to climate change and the storage of spent fuel on site, increasing the overall level of risk to nearby communities.

An examination of the possibility of evacuating Mersea Island, for example, which is only around 2 miles just across the Blackwater estuary from the Bradwell site, gives cause for concern. The Strood is the road leading off Mersea Island to the mainland, the one exit route in the case of a nuclear incident. It also floods twice a day at the highest tides in Spring and Autumn, sometimes for as much as two hours. Mersea Island population doubles in the summer months to 16,000 with perhaps 5,000 tourists at caravan and camp sites, without the shelter of permanent accommodation. This would further compound the difficulty of implementing an evacuation plan. (2)

The Cumbria County Council Emergency Planner, David Humphreys, has attacked plans to build new reactors on farm land on two green field sites near Sellafield. He says at Sellafield “*we already have a well developed emergency plan and a well educated local population. [But] what does concern me is the new reactors at Kirksanton and Braystones. What this does is it brings in an entirely new population being put at risk from these reactors. As an emergency planner it creates major new problems.*” (3)

(1) Hirsch, H et al (April 2005) Nuclear Reactor Hazards Report.

<http://www.greenpeace.org/international/press/reports/nuclearreactorhazards>

See also Nuclear Reactor Safety, no2nuclearpower briefing January 2007.

http://www.no2nuclearpower.org.uk/reports/Nuclear_Safety.pdf

(2) East Anglian Daily Times 5th April 2009 & Colchester & North Essex Gazette 10th April 2009

(3) Whitehaven News 19th March 2009. http://www.whitehaven-news.co.uk/news/strong_reaction_to_millom_nuclear_plan_1_529163?referrerPath=news/

3. Renewable Progress

Germany's Reichstag in Berlin is set to become the first parliamentary building in the world to be 100% powered by renewable energy, and soon the entire country could follow suit. Germany is accelerating

its efforts to become the world's first industrial power to use 100% renewable energy, and, given current momentum, it could reach that green goal by 2050. A new roadmap published by the German Federal Ministry for the Environment sketches out the route it plans to take to switch over completely to renewable energy, and add 800,000 to 900,000 new cleantech jobs by 2030 as it does so. (1)

Meanwhile China will have 100 gigawatts of wind-power capacity by 2020, more than three times the 30 GW target the government laid down in an energy strategy drawn up just 18 months ago. That means wind is set to be a bigger source of power than nuclear, despite a construction boom in nuclear power plants, and far bigger than solar, which is expected to hit 1.8 GW by 2020, according to the 2007 plan. The original 2020 target for nuclear was set at 40 GW, but China is now aiming for 60 GW and officials have spoken of 70 GW. China had 9.1 GW of nuclear power capacity at the end of last year and is building 24 reactors with a further 25.4 GW. (2)

The Solar Thermal Sector has produced an action plan to show how it could meet 50% of Europe's space and water heating requirements by 2050. (3)

(1) Renewable Energy World 3rd April 2009 <http://www.renewableenergyworld.com/rea/news/article/2009/04/germany-the-worlds-first-major-renewable-energy-economy?cmpid=WNL-Wednesday-April8-2009>

(2) Reuters 20th April 2009 <http://uk.reuters.com/article/oilRpt/idUKPEK33615120090420?pageNumber=1&virtualBrandChannel=0>

(3) Renewable Energy World 15th April 2009

<http://www.renewableenergyworld.com/rea/news/article/2009/04/action-plan-for-50-how-solar-thermal-can-supply-europes-energy>

4. Waste problems mount up

Both the Committee on Radioactive Waste Management (CoRWM) (1) and the Nuclear Decommissioning Authority (NDA) (2) published reports at the end of March on the interim storage of radioactive waste. But neither captured the urgency needed to sort out the current nuclear waste mess.

Both reports were produced as a result of CoRWM's July 2006 recommendation that:

"A robust programme of interim storage must play an integral part in the long-term management [of radioactive waste]. The uncertainties surrounding the implementation of geological disposal, including social and ethical concerns, lead CoRWM to recommend a continued commitment to the safe and secure management of wastes that is robust against the risk of delay or failure in the repository programme."

In June 2002 a joint report by the Nuclear Safety Advisory Committee (NuSAC) and the Radioactive Waste Management Advisory Committee (RWMAC) said it was "unsatisfactory" that by April 1998 only 12% of existing Intermediate Level Waste (ILW) had been conditioned. (4) The committees were particularly concerned about poorly characterized, physically and chemically degraded waste held in old facilities subject to deterioration.

The Observer reporting on former waste agency, Nirex's submission (5) to the two committees concluded that:

"...almost 90 per cent of Britain's hazardous nuclear waste stockpile is so badly stored it could explode or leak with devastating results at any time". (6)

CoRWM now says less than 10% (in terms of volume) of the total predicted UK arisings of ILW have been conditioned to date. Similarly the NDA says about 8% of the total ILW inventory had been recovered, conditioned, packaged and placed into interim storage by 31st March 2008. So there has been very little progress since the NuSAC/RWMAC report which used figures from a decade ago.

The NDA rightly says its priority is to deal with high hazard, high environmental risk facilities (the majority of which are at Sellafield and Dounreay) ensuring the wastes are removed from ageing facilities at the earliest safe opportunity. It says progress has been slow because it has focused on the most difficult types of waste first.

Yet an old Magnox storage pond at Sellafield – known as B30 – which was issued with an improvement notice by the Nuclear Installations Inspectorate in February 2001 was recently described by George Beveridge, Sellafield's deputy managing director, as still "*the most hazardous industrial building in western Europe.*" (7)

NuSAC warned again in July 2008 that programmes to deal with radioactive waste from decommissioning at Sellafield and other old nuclear plants had experienced significant slippage, because of poor performances of nuclear plants, delays in developing waste processing and budget restrictions. "*There remains a lack of confidence that the high hazards are being tackled to a robust programme.*" (8) It said hazard reduction at

some sites was continuing at a slower rate than was expected when the NDA was set up.

NuSAC was shut down in October 2008. Some former members privately suspect this was because its criticisms were too forthright and could have hampered plans for new reactors. (9)

- (1) Interim storage of higher activity wastes and the management of spent fuels, plutonium and uranium, CoRWM, March 2009
<http://www.corwm.org.uk/Pages/Involving%20People/2500%20-%20CoRWM%20Interim%20Storage%20Report%20Final%2031%20March%2009.pdf>
- (2) UK Radioactive Higher Activity Waste Storage Review, NDA, March 2009. <http://www.nda.gov.uk/documents/upload/UK-Radioactive-Higher-Activity-Waste-Storage-Review-March-2009.pdf>
- (3) Managing our Radioactive Waste Safely, CoRWM, July 2006 <http://www.corwm.org.uk/Pages/Current%20Publications/700%20-%20CoRWM%20July%202006%20Recommendations%20to%20Government.pdf>
- (4) Current Arrangements and Requirements for the Conditioning, Packaging and Storage of Intermediate Level Radioactive Waste, RWMAC and NuSAC, June 2002. <http://collections.europarchive.org/tna/20080727101330/http://defra.gov.uk/rwmac/reports/interwaste/index.htm>
- (5) Available on the Greenpeace website 1st July 2002 <http://www.greenpeace.org.uk/media/reports/the-uks-most-challenging-radioactive-wastes-the-official-documentation>
- (6) Observer 30th June 2002. <http://www.guardian.co.uk/politics/2002/jun/30/uk.nuclear>
- (7) Observer 19th April 2009 <http://www.guardian.co.uk/environment/2009/apr/19/sellafield-nuclear-plant-cumbria-hazards>
- (8) Review of NDA Funding Issues by AR Webb, NuSAC, July 2008
<http://www.hse.gov.uk/aboutus/meetings/iacs/nusac/030708/p19-ndafunding.pdf>
- (9) Guardian February 16, 2009. <http://www.guardian.co.uk/environment/2009/feb/16/nuclear-safety>

5. High-Level Waste Near Miss?

A cooling failure in the high level waste (HLW) tanks at Sellafield on 1st April 2009, which was so serious that the Site Emergency Control Centre arrangements had to be called upon, has highlighted the problems at this facility. The HLW facility is probably the most dangerous in the world and has the potential to wipe out much of northern England and southern Scotland. (1) In 1998 the tanks contained around 2,100 kilograms (kg) of Caesium-137 compared with the 30 kg released during the Chernobyl accident.

Extremely dangerous liquid high level waste is stored at Sellafield in 21 stainless steel tanks, which must be constantly cooled and ventilated, because it is so radioactive it generates its own heat. (2) It is important that the cooling system in the HLW tanks is kept running constantly – otherwise the liquid in the tanks could get so hot it boils. If this happened then radioactivity would escape and contaminate the surroundings. The Nuclear Installations Inspectorate (NII) has stated that the consequences of prolonged cooling failure could be ‘very severe’. (3) The timings involved are very short. Cooling failure would lead to boiling after 12 hours, and to the tank drying out after three days.

There is a wide range in the age of the tanks. The volume of highly radioactive liquor which can be stored is controlled by a legally binding specification issued by the NII. Vitrification – turning the HLW liquid into glass blocks - achieves significant hazard reduction. However, problems with the Highly Active Liquor Evaporation and Storage (HALES) facility have resulted in lower than anticipated vitrification throughput. There are currently three evaporators which are used to concentrate highly active liquors prior to storage and vitrification but these have not been working well, so one and possibly two new evaporators are required.

In July 2008 the NII reported there were some corrosion problems in the tanks. It said replacement tanks should be pursued with the “*utmost urgency*”. (4) In September 2008, the NII wrote to the NDA to express “*surprise and concern*” about recent funding decisions which delayed the construction of new evaporators and new tanks. (5) In October 2008, the NII told The Whitehaven News: “*Further evaporator capacity at Sellafield is essential for the longer term safe management of highly active liquor.*” The newspaper reported that both the NII and the Environment Agency have expressed concern that “*funding shortfalls*” for the operation of Sellafield could undermine regulatory standards. (6)

Luckily because of reduced fuel reprocessing throughputs due to breakdowns at the two reprocessing plants, new liquid HLW arisings have been significantly reduced. Sellafield Ltd has started the design and construction of a fourth evaporator and has also provided scope for a further evaporator and replacement HLW tanks within the Lifetime Plan (LTP).

The Institute for Resource and Security Studies submitted evidence to the House of Commons Defence Select Committee in January 2002, following 9/11, about the terrorist threat represented by the HLW tanks, which suggesting the quantity of liquid waste had increased to 2,400 kg. (7) This led to a report by the Parliamentary Office of Science and Technology which looked at various estimates of the impact of a terrorist attack on the tanks. Estimates vary – but some commentators have reported that such an attack may require the evacuation of an area between Glasgow and Liverpool, (8) and cause around 2 million fatalities. (9)

Although the time it would take for radioactivity to start escaping is short, the industry argues the probability of a failure in the cooling system is extremely low. However a cooling failure did, in fact occur on 1st April 2009. (10) The Sellafield Site Newsletter 'Sellafield News' indicates the problem was so serious that the Site Emergency Control Centre arrangements had to be called on. (11) Efforts to re-instate the cooling water supply were directed first at the three tanks with the highest heat loading. Cooling was restored to the first of these after 75 minutes and to all three tanks after 3 hours. Reporting on the incident, Sellafield's in-house Newsletter states that cooling was restored to all tanks within 8 hours. Cumbrians Opposed to a Radioactive Environment commented that this was perilously close to the timescale of 10.5 hours catered for in the Sellafield emergency plan.

Recent research by the Norwegian Radiation Protection Authority (NRPA) considers the effects of a hypothetical critical accident at the Sellafield HLW tanks. If prevailing northeasterly winds occurred, Norway could have radioactive materials hitting its coastline just 9 hours after an accident (12). The NRPA looked at scenarios involving an atmospheric release of between 0.1 – 10 % of the total Caesium-137 inventory contained in the tanks. It found that Norway could receive up to 50 times the contamination experienced after Chernobyl.

- (1) 'Near Miss' at Sellafield's High Level Waste (HLW) Storage Tank Complex.' Thur 9 April 2009 <http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=256>
- (2) High Level Liquid Radioactive Waste at Sellafield: Executive Summary, Institute for Resource and Security Studies, June 1998. <http://www.nuclearpolicy.info/docs/briefings/a99.pdf>
- (3) High Level Radioactive Liquid Waste at Sellafield - Risks, Alternative Options and Lessons for Policy: Full Report by Gordon Thompson, Institute for Resource and Security Studies, June 1998) - Section 4.1 <http://www.irss-usa.org/pages/documents/Complezew-oapp.pdf>
- (4) HSE Nuclear Newsletter July 2008. p16 <http://www.hse.gov.uk/nuclear/nsn4308.pdf>
- (5) Letter from Mike Weightman Chief Inspector to Richard Waite, NDA Acting CEO, 26th September 2008.
- (6) Whitehaven News 8th October 2008. <http://www.whitehaven-news.co.uk/news/1.251885>
- (7) Civilian Nuclear Facilities as Weapons for an Energy, A submission to the House of Commons Defence Committee, Institute for Resource and Security Studies, 3rd January 2002 http://www.irss-usa.org/pages/documents/UKDefCtee01_02_000.pdf
- (8) Assessing the risk of terrorist attacks on nuclear facilities, POST Report 222, July 2004. p81 <http://www.parliament.uk/documents/upload/POSTpr222.pdf>
- (9) Possible Toxic Effects from the Nuclear Reprocessing Plants at Sellafield and Cap de la Hague. European Parliament, Scientific and Technological Options Assessment, November 2001. p45 http://www.europarl.europa.eu/stoa/publications/studies/20001701_en.pdf
- (10) 'Near Miss' at Sellafield's High Level Waste (HLW) Storage Tank Complex.' Thur 9 April 2009 <http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=256>
- (11) 'Sellafield News' Wednesday 8th April 2009 – Issue 1101 (page 2) http://www.sellafieldsites.com/UserFiles/File/Sellafield%20News/Sellafield%20News%2008_4_09.pdf
- (12) Consequences in Norway of a hypothetical accident at Sellafield, NRPA, 23rd March 2009. http://www.nrpa.no/archive/Internett/Publikasjoner/Stralevernrapport/2009/StralevernRapport_2009_7.pdf
See also NFLA Press Release 27th March 2009 http://www.nuclearpolicy.info/news/Press_Release_270309.pdf

6. US Progress

The chairman of the US Federal Energy Regulatory Commission, Jon Wellinghoff, says the US may not need any new coal and nuclear plants ever.

"I think [new nuclear expansion] is kind of a theoretical question, because I don't see anybody building these things, I don't see anybody having one under construction."

Building nuclear plants is cost-prohibitive, he said, adding that the last price he saw was more than \$7,000 a kilowatt — more expensive than solar energy. Between energy efficiency, wind, concentrated solar power (CSP) and biomass and even new hydro, and natural gas, the US certainly has more than enough capacity to deliver as much low carbon and no-carbon power as needed. (1)

Offshore wind turbines could meet all of the US' electricity needs, according to a report from the country's interior department. Speaking at a renewable energy conference, secretary of the interior Ken Salazar said wind off the coasts of the lower 48 states had the capacity to generate a total of 1,900 gigawatts. This actually exceeds the entire US electricity demand. (2)

Meanwhile a grassroots campaign against a new reactor in Missouri has achieved victory. AmerenUE announced the cancellation of its plans to build a new 1,600MW EPR at its Callaway nuclear plant. The project's biggest stumbling block was Missouri's anti-CWIP law. "Construction Work in Progress" (CWIP)

allows a nuclear utility to recover the construction costs of a reactor before the reactor actually operates. Electricity consumers pay this cost through their current electricity bill even though the reactor has not produced any power. Like federal taxpayer loan guarantees, CWIP is a way to overcome private investors' wise aversion to the large financial risks of new reactor loans. (3)

The US domestic component of the Global Nuclear Energy Partnership (4) has been cancelled. (5) Long-term fuel cycle research and development will continue but not the near-term deployment of reprocessing facilities or fast reactors. The international component of GNEP is under review.

(1) Climate Progress 22nd April 2009. <http://climateprogress.org/2009/04/22/ferc-chair-wellinghoff-nonew-nuclear-and-coal-plants/>

(2) Low Carbon Economy 3rd Apr 2009 http://www.lowcarboneyconomy.com/community_content/_low_carbon_news/5200?09042009

(3) Beyond Nuclear 24th April 2009 <http://www.beyondnuclear.org/>

(4) For more on GNEP see "Civil Nuclear Power Revival and Nuclear Proliferation" no2nuclearpower briefing May 2008. <http://www.no2nuclearpower.org.uk/reports/ProliferationBriefMay08.pdf>

(5) Nuclear Engineering International April 15th 2009 <http://www.neimagazine.com/story.asp?sectioncode=132&storyCode=2052719>

7. Brown Old Deal

Most of Gordon Brown's green initiatives have not materialised and, in some cases, are likely to set back his professed strategy for "the creation of a low-carbon economy". Over the past four years, ministers have launched a staggering 91 consultations relating to the issue, while actually doing little, according to Geoffrey Lean writing in the Independent on Sunday. (1)

A report published by WWF and E3G has revealed that, instead of stimulating a green recovery, the UK's economic recovery package could actually risk locking the UK into a high-carbon future. The report analyses the proposed 'stimulus' packages of five key countries - France, Germany, Italy, the UK and the US - as well as examining the package agreed by the European Union as a whole. Specifically, the UK stimulus entirely neglected the potential for investment in renewables and was given an overall negative score. The report found that the harmful effects of new spending on roads far outweighed the contribution of extra expenditure on energy saving and rail infrastructure. (2) The New Economics Foundation (NEF) reached a similar conclusion. (3)

In the run-up to the budget there was a great deal of concern that the recession would kill off any hope we have left in Britain of building a renewable energy manufacturing base. Staff were being laid off by solar power companies, as a result of the ending of grants for solar photovoltaics. (4)

Several major energy companies, including Shell, BP and Centrica, said they will axe or reconsider investment in "low carbon" energy such as wind and solar power and carbon capture for coal-fired power stations. The Confederation of British Industry warned that, if ministers do not take "urgent action", billions of pounds of investment needed to cut global warming emissions will move to the US and China. The British Wind Energy Association (BWEA) also warned that funding cuts and bureaucracy are in danger of "derailing" the UK's micro and small wind turbine industry, one of the few green sectors in which the UK boasts a number one world position. The BWEA calculates that the micro and small turbine sector employs 1,880 people, potentially rising to 10,000 by 2030.

Did the budget change all this? Possibly. The £1.4bn package of measures designed to create a low carbon economy was criticised as inadequate by environment and business groups – it left a lot to be desired - but it still contained measures that were undeniably significant. It included £525m of new support over the next two years for offshore wind projects; £435m of support for energy efficiency measures to homes and other buildings; and £405m to encourage low-carbon energy and advanced green manufacturing in Britain. Furthermore combined heat and power (CHP) was given a shot in the arm with the announcement it will be exempt from the Climate Change Levy from 2013, and the still-to-be proven technology of carbon capture and storage (CCS) was given new impetus with the announcement that the CCS demonstration plant the Government has been planning will now become two plants, and possibly even four. (5)

The British Wind Energy Association welcomed the package, but said the industry still faced a £10-15bn bill for an offshore grid. Andrew Lee, general manager of Sharp Solar UK said it was a good day for solar power after the chancellor announced £45m for small-scale renewable energy. (6)

But the funding was generally seen as inadequate. Friends of the Earth's director Andy Atkins said: "*The government has squandered a historic opportunity to kick-start a green industrial revolution and slash UK carbon dioxide emissions.*" NEF's policy director Andrew Simms said: "*The commitments on energy efficiency and low-carbon industry are obscured by a cloud of greenhouse gases spewing from the prop-ups given to the car and oil industry. It's as if the chancellor wants to 'have his planet and eat it'.*" (7)

The £405m to support low-carbon energy and the green manufacturing sector, includes nuclear power, raising a questionmark over the Government's commitment not to give any kind of subsidy to the nuclear sector.

Building firms welcomed a total of £435m of home energy and efficiency measures to be spent in the next two years, but said it was much too little to kickstart an ailing construction industry. Greenpeace dismissed the measures as woeful. The group published a report at the end of March which showed that over fifty thousand British jobs could be created if the government invested in an energy efficiency programme. (8)

Rather than waiting for Gordon Brown to save the planet, we need to take some action ourselves. One idea is to join the Women's Environmental Network Three Tonne Club.

<http://www.wen.org.uk/climatechange/projects.htm>

(1) Independent on Sunday 19th April 2009 <http://www.independent.co.uk/environment/green-living/the-great-green-con-labours-climate-measures-mainly-hot-air-1671051.html>

(2) WWF Press Release 2nd April 2009

http://www.panda.org/wwf_news/press_releases/?161201/High-carbon-stimulus-not-G20s-way-to-a-sustainable-financial-future

Economic Recovery-Climate Scorecards.

<http://www.e3g.org/index.php/programmes/climate-articles/new-e3g-wwf-report-economic-climate-recovery-scorecards/>

(3) Guardian 21st April 2009 <http://www.guardian.co.uk/environment/2009/apr/21/carbon-emissions-energy>

(4) Observer 19th April 2009 <http://www.guardian.co.uk/environment/2009/apr/19/solar-power-energy-jobs>

(5) Independent 23rd April 2009

<http://www.independent.co.uk/environment/green-living/green-jobs-strict-limits-on-carbon-will-be-a-key-tool-1672803.html>

(6) FT 23rd April 2009

<http://www.ft.com/cms/s/0/c1bbb4b6-2f9e-11de-a8f6-00144feabdc0.html>

(7) Guardian 23rd April 2009 <http://www.guardian.co.uk/uk/2009/apr/22/budget-low-carbon-economy>

(8) The case for including energy efficiency investment in the fiscal stimulus package, by Impetus Consulting 30th March 2009. http://www.greenpeace.org.uk/files/EE_fiscal_stimulus_Impetus_Report.pdf

8. Three Mile Island

People died - and are still dying - at Three Mile Island. Thirty years ago Americans watched as the country's worst nuclear accident unfolded, and what had been officially deemed "*incredible*" actually happened, causing people to flee their homes in panic.

The public was assured there was no radiation release. That quickly proved to be false. The public was then told the releases were controlled and done purposely to alleviate pressure. Both those assertions were false. The public was told the releases were "insignificant." But stack monitors were saturated and unusable, and the Nuclear Regulatory Commission later told Congress it did not know - and STILL does not know - how much radiation was released, or where it went. Investigations by epidemiologist Dr. Stephen Wing of the University of North Carolina, and others, led Wing to warn that the official studies on the health impacts of the accident suffered from "logical and methodological problems." Studies by Wing and by Arnie Gundersen, a former nuclear industry official, released in March significantly challenge official pronouncements on both radiation releases and health impacts. (1)

Dr Wing said: "*I believe this is very good evidence that releases were thousands of times greater than the story we've been told,*" he said. "*As we think about the current plans to open more nuclear reactors, when we hear -- which we hear often -- that no one was harmed at Three Mile Island, we really should question that.*" (2)

The legacy of TMI looms. As Peter Bradford, former Nuclear Regulatory Commissioner, has noted: "*The abiding lesson that Three Mile Island taught Wall Street was that a group of N.R.C.-licensed reactor operators, as good as any others, could turn a \$2 billion asset into a \$1 billion cleanup job in about 90 minutes.*"(3)

(1) Counterpunch 24th March 2009 <http://www.counterpunch.org/wasserman03242009.html>

Video of talks by Steve Wing and Arnie Gundersen <http://www.tmia.com/march26>

(2) Common Dreams 3rd April 2009 <http://www.commondreams.org/view/2009/04/03-9>

(3) Climate Progress 27th March 2009 <http://climateprogress.org/2009/03/27/three-mile-island-anniversary-meltdown-nuclear-power-problems/>

9. Iran & Solar

Gordon Brown says the UK stands ready to help Iran achieve a civil nuclear programme if it abides by United Nations rules. The International Atomic Energy Agency has estimated that Iran already has enough enriched uranium to build a nuclear bomb. Of course, what Brown doesn't mention is that even if Iran gives up uranium enrichment, it wouldn't need a large industrial-scale reprocessing facility, like Sellafield, to separate plutonium from its spent nuclear fuel. A quick and simply designed plutonium separation facility could be in operation in six months if Iran really wants a bomb. Restricting the spread of nuclear material whilst at the same time promoting nuclear power does not work. (1)

Yet in Paris last year, at the inaugural meeting of the Union for the Mediterranean, Brown said “... *in the Mediterranean region, concentrated solar power offers the prospect of an abundant low carbon energy source. Indeed, just as Britain’s North Sea could be the Gulf of the future for offshore wind, so those sunnier countries represented here could become a vital source of future global energy by harnessing the power of the sun*”. Although Iran is not in the Mediterranean region, it has some of the best solar resources in the world. Concentrating solar power (CSP), in which mirrors concentrate sunlight and the resulting heat drives turbines and generators, could meet all of Iran’s electricity needs from a small fraction of the Iranian deserts. (4)

(1) The civil nuclear power revival and nuclear proliferation. No2nuclearpower briefing May 2008 <http://www.no2nuclearpower.org.uk/reports/ProliferationBriefMay08.pdf>

(2) Independent 28th March 2009 <http://www.independent.co.uk/opinion/letters/letters-iran-and-renewable-energy-1656062.html>

10. Blair’s Folly

The only nuclear facility given the go-ahead by the Labour Government since 1997 – the Sellafield MoX Plant (SMP) - has been an economic and technical failure - another reminder of why the nuclear industry has become notorious for making wildly exaggerated claims about its benefits and precisely why it should be treated with 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 just 6.3 tonnes over its seven year life at a cost to the taxpayer of more than £1bn. (2)

(1) Independent 7th Apr 2009

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

(2) CORE Press Release 3rd Apr 2009 <http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=255>

Independent 7th Apr 2009 <http://www.independent.co.uk/environment/green-living/a-1631bn-nuclear-white-elephant-1664427.html>

11. Nuclear Transport

The growing number of nuclear waste shipments through the Irish Sea risk accidents that could cause widespread radioactive contamination, according to a report by the independent marine pollution consultant, Tim Deere-Jones and published by the Nuclear Free Local Authorities. (1) The transport ships have “design flaws” that could make them unsafe while the emergency plans in place to cope with an accident are non-existent or inadequate. At least 45 movements of nuclear materials have been made through the Irish Sea since 2004. Cargoes of radioactive waste and fuel are transported from Sellafield to nuclear plants in Japan, the US and Europe.

(1) Nuclear Free Local Authorities Briefing No.66 March 2009

http://www.nuclearpolicy.info/docs/briefings/NFLA_briefing_66.pdf

(2) Sunday Herald 12th Apr 2009 http://www.sundayherald.com/news/heraldnews/display.var.2501456.0.design_flaws_in_nuclear_transport_ships_increase_the_risk_of_accidents_claims_report.php

