



In this issue:-

1. Nuclear Costs out of Control.
2. Solar Revolution.
3. “We concentrated so much on nuclear that we lost sight of everything else,”
4. No such thing as a peaceful atom.
5. Biased Advisors
6. Jeopardizing UK lead in countdown to Copenhagen
7. Building reactors and nuclear waste stores on land liable to be submerged
8. Green Gas

1. Nuclear Costs out of Control

The capital costs of new reactors are “out of control,” according to the December issue of Time Magazine. New reactors are not just extremely expensive but spectacularly expensive, with costs on track to reach 15 – 20 cents per kWh. (1) The Institute for Energy and Environment Research (IEER) in Maryland cited costs of 10 to 17 cents per kilowatt-hour in October last year – compared with 8 to 12 cents for wind, and about the same for new large solar plants in California. (2)

The Nuclear Information and Resource Service (NIRS) now reckon costs will be closer to 20 cents/kwh. Most renewable and efficiency projects would be cheaper. (3) But the most recent study puts the figure at 25 to 30 cents/kWh — triple current U.S. electricity rates! (4) Nuclear cost estimates now put new reactors among the costliest private projects ever undertaken. (5)

Moody’s Investor Services estimated in October 2007 that new reactors would cost \$5,000 to \$6,000 per kilowatt to build, or up to \$12 billion per unit. But as staggering as their estimates were at the time, those who did the calculations for Moody’s have concluded, based on newer data, they were not high enough. “The numbers have simply gone flying past our highest 2007 estimates,” says Moody’s, which now predicts new nuclear power plants will cost \$7,500 per kilowatt. (6)

Back here in Europe there are widespread doubts about the ability of nuclear power companies to build new reactors on time and budget. EDF’s new European Pressurised Reactor (EPR) being built at Flamanville in France is already 20% over budget, while delays continue to plague the Finnish EPR. EDF said Flamanville will cost €4bn (£3.5bn) instead of €3.3bn, blaming “higher raw material costs and the impact of technical and regulatory evolutions”. (7)

Areva, the French nuclear plant designer, has now become embroiled in a war of words with the Finnish utility over delays at Olkiluoto. Areva has told the utility, TVO, the reactor will be three years late – it will not be ready until 2012. TVO attacked Areva and its German consortium partner Siemens for suggesting the embarrassing problems had been caused by the Finns, and totally rejected the consortium’s accusations that TVO has any responsibility for the delay. (8)

The fall in the value of sterling has added over 40% to the cost of constructing new reactors in the UK. The €5.2bn prospective cost of the Finnish reactor now implies a price in UK£ of about £5bn rather than £3.5bn. This raises the prospective cost of electricity generated by the nuclear station to around £70 per megawatt hour, or over £20 more than the current wholesale price. So, at today’s electricity prices and exchange rates the operator of a nuclear power station built for the same price as the Finnish plant would lose £20 per megawatt hour. No rational electricity company intent on making a profit would contemplate making an investment in a reactor if these conditions persist. (9)

A briefing on nuclear costs and finances is available at:

http://www.nuclearspin.org/images/2/20/Nuclear_Costs_and_Finances.pdf

- (1) Grunwald, M. Nuclear's Comeback Still No Energy Panacea, Time, December 31, 2008. <http://www.time.com/time/printout/0,8816,1869203,00.html>
- (2) Makhijani, A. Nuclear isn't necessary, Nature 2nd Oct 2008 <http://www.nature.com/climate/2008/0810/full/climate.2008.103.html>
- (3) Lusk, P. Nuclear Plant Electricity: A Simple Costing Model, NIRS website, April 2008. <http://www.nirs.org/neconomics/nuclearpowerplantelectricitycostslusk.pdf>
- (4) Exclusive Analysis Part 1: The Staggering Cost of New Nuclear Power, Climate Progress 5th January 2009. <http://climateprogress.org/2009/01/05/study-cost-risks-new-nuclear-power-plants/>
- (5) Severance, C. Business Risks and Costs of New Nuclear Power, January 2009 <http://climateprogress.org/wp-content/uploads/2009/01/nuclear-costs-2009.pdf>
- (6) Blake, M. Bad Reactors: Rethinking your opposition to nuclear power? Rethink again. Washington Monthly Jan/Feb 2009 <http://www.washingtonmonthly.com/features/2009/0901.blake.html>
- (7) Macalister, T. Nuclear industry claims it is now sexy but admits to rising costs. Guardian, December 5, 2008 <http://www.guardian.co.uk/environment/2008/dec/05/nuclear-power-sexy-edf-reactor>
- (8) Macalister, T. Areva clashes with Finnish utility over delays to new nuclear plant. Guardian, January 14, 2009 <http://www.guardian.co.uk/business/2009/jan/14/areva-nuclear-finland-olkiluoto>
- (9) Goodall, C. The rising costs of UK nuclear energy. Guardian, January 5, 2009 <http://www.guardian.co.uk/environment/2009/jan/05/nuclear-energy-rising-cost>

2. Solar Revolution

California's Silicon Valley is rapidly becoming more famous for the silicon solar cell than the silicon chip. Many now believe that solar power will be at much the same price as electricity from fossil fuels in months rather than years, backing up what we said in NuClear News No.1 (Obsolete before they open?).

Writing in the Independent on Sunday, Geoffrey Lean contrasts Gordon Brown's decision on 15th January to allow a third runway to be built at Heathrow with the forthcoming US administration's launch on the same day of a stimulus package largely based on green energy. The Heathrow decision harks back to the politics and economics of the oil-soaked 20th century, when all expansion was good. The Obama package, instead, looks to the new age when climate change and the increasing scarcity of fossil fuels demand a new approach. It is intended to create five million new jobs by investing \$150bn (£100bn) in renewable energy. Obama has now committed to doubling production from renewables in only three years, and to ensuring that they provide a quarter of US electricity by 2025. He has pledged to improve the energy efficiency of two million American homes and three-quarters of government buildings, and to produce fuel-efficient cars.

- (1) Lean, G. Overnight the US is going green – but we're stuck in a different age. Independent on Sunday, January 14, 2009. <http://www.independent.co.uk/opinion/commentators/geoffrey-lean-overnight-the-us-is-going-green-ndash-but-were-stuck-in-a-different-age-1418752.html>

3. "We concentrated so much on nuclear that we lost sight of everything else,"

Washington Monthly - journalism that isn't afraid to shake some sense into the system – urges its readers who may have been re-thinking their opposition to nuclear power to re-think again. (1) The reasoning behind the magazine's appeal is Finland's recent experiences with nuclear power.

Finland was faced with a daunting energy dilemma seven year's ago. It needed to double its electricity supply by 2025 and cut carbon emissions by fourteen million tons a year to comply with the Kyoto Protocol. As it hunted for solutions, the Finnish government decided to consider building another nuclear power plant. A study by the Lappeenranta University of Technology, which used figures on par with industry estimates for capital costs, found a new reactor could deliver electricity more affordably than any other large-scale option. A committee of MPs concluded that a single reactor could create a much greater drop in carbon emissions than the next cheapest option, building more gas-fired plants.

Based on these findings, in May 2002 the Finnish parliament voted to approve the construction of a new nuclear power plant. To date, more than 2,200 "quality deficiencies" have been detected, according to the Finnish nuclear authority, STUK. Largely as a result, the project, which was supposed to be completed in 2009, is three years behind schedule and is expected to cost 50% more than the original estimate. And the numbers could keep climbing. Things will have to go extremely well even to meet these new targets. (2)

The cost savings nuclear power was supposed to deliver compared to other energy sources have already been lost. And because the reactor won't be completed before 2012, Finland will have to buy hundreds of millions of dollars' worth of credits through the European Union's emissions trading scheme to meet its carbon targets. In the meantime, because the country expected the reactor to deliver a bounty of energy and didn't pursue

other options, it's facing a severe electricity shortage and will have to import even more from abroad, which will drive up power bills. Project delays will create an estimated \$4 billion in indirect costs for electricity users.

The view that we will have to deploy every weapon in our arsenal, including nuclear fission, in our urgent struggle against climate change - a position embraced by a growing number of politicians and pundits - has two glaring flaws. One is the long, uncertain construction schedule for building new reactors. To avoid the worst effects of global warming we need to reverse the growth of greenhouse gas emissions by 2015, according to the UN's Intergovernmental Panel on Climate Change, but new UK reactors are unlikely to come on stream much before 2020.

The other key problem is that, given the enormous expense and the industry's hunger for subsidies, pursuing the nuclear path can crowd out investment in green energy. In the US, for example, over the last decade, federal funding for renewable energy and efficiency research has essentially remained flat, even as concerns about global warming have mushroomed. Support for nuclear power, on the other hand, has soared from zero in the late 1990s to \$438 million a year in 2008.

In Finland, because residents believed the new reactor in Olkiluoto would drastically cut emissions, there was little effort to promote renewable energy or boost efficiency, with the result that the country is now lagging behind its neighbors. Despite its long, windswept coast, Finland has less wind power capacity than any central European state except Luxembourg and Switzerland. It also ranks near the bottom on energy efficiency, and its record on greenhouse gas emissions is dismal: between 1990 and 2006 (the most recent year for which data is available) the nation's carbon output leapt by 13%, one of the largest spikes in any developed nation.

"We concentrated so much on nuclear that we lost sight of everything else," says Oras Tynkynnen, a climate policy adviser in the Finnish prime minister's office. "And nuclear has failed to deliver. It has turned out to be a costly gamble for Finland, and for the planet."

(1) Blake, M. Bad Reactors: Rethinking your opposition to nuclear power? Rethink again. Washington Monthly Jan/Feb 2009 <http://www.washingtonmonthly.com/features/2009/0901.blake.html>

(2) Guardian Diary February 4, 2009

<http://www.guardian.co.uk/environment/2009/feb/04/eco-soundings-environment>

For more information on why the French EPR is an absolute disaster see: http://www.no2nuclearpower.org.uk/reports/French_EPR.php

4. No such thing as a peaceful atom.

The new director of the White House Office of Science and Technology Policy, appointed by President Obama, former Harvard physicist John Holdren, describes nuclear weapons proliferation as the most difficult problem to solve if the number of nuclear reactors worldwide expands. To increase nuclear's contribution to worldwide electricity from one-sixth to one-third the number of reactors would have to be multiplied by ten from around 350 to 3,500. (1)

Promoting 'peaceful' nuclear power has accelerated nuclear weapons proliferation in India, Pakistan, Israel, and North Korea (DPRK) where nuclear reactors have produced nuclear materials, to make nuclear weapons. (2) Trying to restrict the spread of nuclear materials whilst at the same time promoting nuclear power does not work. Now civil nuclear reactors look likely to spread even further around the globe risking the possibility of multiple mini-cold wars. (3)

Manufacturing a nuclear bomb requires fissile material - either uranium-235 or plutonium-239. The problem is that most nuclear reactors use uranium as a fuel and produce plutonium during operation. Uranium fuel for nuclear reactors has to be produced from uranium dug out of the ground by an 'enrichment process', and so does weapons-grade uranium. So, basically anyone with uranium enrichment technology for manufacturing nuclear fuel can also manufacture a bomb.

When an operating reactor produces plutonium, it can be separated out from the spent fuel, provided the equipment is available, so anyone with a reactor can also make a nuclear bomb using plutonium. Plutonium separation is a chemical process carried out in what is known as a reprocessing plant. But separating plutonium from spent nuclear waste fuel does not require a large industrial-scale reprocessing facility, like Sellafield. A quick and simply designed plutonium separation facility could be in operation in four to six months. (4)

In 2006, the Bush administration launched the Global Nuclear Energy Partnership (GNEP) with the aim of expanding the international nuclear industry and forging partnerships with other countries to address fuel supply, spent nuclear fuel and proliferation of nuclear weapons. Under GNEP, the U.S. and other leading nuclear countries would provide an assured supply of reactor fuel and take back spent fuel from

other countries that were willing to forego development of their own uranium enrichment and reprocessing programmes. (5)

In a report for Friends of the Earth USA, and others, the authors (which included former Clinton Advisor Robert Alvarez) called GNEP “ill-conceived [which] would increase the danger of nuclear proliferation and the potential for weapons grade materials falling into the hands of hostile or unstable nations and terrorist groups”. (6) Another report, by a mixed group of stakeholders from industry and environment groups, brought together by the Keystone Center, concluded that GNEP cannot be seen as a programme to reduce proliferation problems, and may indeed increase them. The study participants agreed that a primary proliferation concern is the diversion of material from bulk handling facilities such as reprocessing plants, uranium enrichment facilities, or MOX (mixed plutonium and uranium) fuel fabrication facilities. Growing stocks of separated plutonium represent a significant proliferation risk. (7)

A large increase in global nuclear capacity implies a proportional expansion of uranium enrichment. The diffusion of knowledge and the increase in trade in specialised materials and equipment would make it progressively more difficult to identify clandestine weapons programmes.

Many governments, international agencies and arms control experts are calling for the implementation of new non-proliferation rules before new countries can receive reactor technology. These would include agreeing to more intrusive inspections by the International Atomic Energy Agency, and a commitment not to obtain uranium enrichment or reprocessing facilities. But countries with new nuclear programmes would probably be reluctant to hand control of their fuel supply to foreign governments. In fact, long-standing resentments over the rich world’s monopolisation of nuclear technology have made developing countries wary of any effort to ask them to rely on the nuclear powers for their energy security. (8)

And there is no guarantee that new rules can be agreed internationally, or that everyone would stick to them. Iran agreed to more intrusive inspections, but suspended its compliance in early 2006 in defiance of the UN Security Council. Despite this, Russia has continued construction of the Bushehr reactor. Egypt announced in 2007 that it would not agree to intrusive inspections, yet Russia has given no indication that it will prevent its firms from bidding to build a nuclear reactor there. (9)

Victor Gilinsky, former member of the US Nuclear Regulatory Commission appointed by both Presidents Ford and Carter, says current efforts to encourage the global spread of nuclear energy are dangerously shortsighted and will result in weapons proliferation. (10) No matter how stringent the additional international safeguards against weapons proliferation, there will inevitably be a vast increase in the worldwide flow of weapon-usable nuclear materials, and a corresponding increase in the threat that such materials will fall into the hands of rogue states or terrorists. (11)

(1) Will Nuclear Power save us from global warming? Corporate Watchdog Radio, September 6, 2006. <http://corporatewatchdogmedia.blogspot.com/2006/09/will-nuclear-power-save-us-from-global.html>

(2) Civil Nuclear Power and Nuclear Weapons Proliferation, January 2007 Briefing. http://www.no2nuclearpower.org.uk/reports/Civil_Nukes_Proliferation.pdf

(3) Ferguson, N. Fast forward 10 years... and there are cold wars everywhere. Sunday Telegraph May 14, 2006 <http://www.telegraph.co.uk/opinion/main.jhtml?xml=/opinion/2006/05/14/do1402.xml>

(4) Gilinsky, V., Miller, M., and Hubbard, H., A fresh examination of the proliferation dangers of Light Water Reactors, October 22nd 2004, Nonproliferation Policy Education Center, Washington.

<http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=Report041022%20LWR&PDFFolder=Reports>

(5) See The Civil Nuclear Power Revival and Nuclear Proliferation, No2nuclearpower briefing, May 2008 <http://www.no2nuclearpower.org.uk/reports/ProliferationBrief.pdf>

(6) Risky Appropriations: Gambling US energy policy on the Global Nuclear Energy Partnership, by David Schlissel et al. Friends of the Earth USA, Government Accountability Project, Institute for Policy Studies, and Southern Alliance for Clean Energy, January 2008. <http://www.whistleblower.org/doc/2008/GNEPMarch.pdf>

(7) Nuclear Power Joint Fact Finding, Keystone Center June 2007. p91

[http://www.keystone.org/spp/documents/FinalReport_NuclearFactFinding6_2007\(2\).pdf](http://www.keystone.org/spp/documents/FinalReport_NuclearFactFinding6_2007(2).pdf)

(8) Mackenzie, D. Should nuclear fuels be taken out of national hands. New Scientist, January 7, 2009.

<http://www.newscientist.com/article/mg20126903.100-should-nuclear-fuels-be-taken-out-of-national-hands.html?full=true>

(9) Albright, D and Scheel, A. Unprecedented projected nuclear growth in the Middle East: Now is the time to create effective barriers to proliferation. ISIS Report. November 12, 2008. http://www.isis-online.org/publications/iran/Unprecedented_Projected_Nuclear_Growth_Middle_East_12Nov2008.pdf

(10) Gilinsky, V. A call to resist the nuclear revival. Bulletin of Atomic Scientists, January 27, 2009. <http://www.thebulletin.org/web-edition/features/a-call-to-resist-the-nuclear-revival>

(11) Lyman, E. The Global Nuclear Energy Partnership: Will it advance nonproliferation or undermine it? Union of Concerned Scientists, July 19, 2006. http://www.ucsusa.org/assets/documents/nuclear_power/microsoft-word-inmm2006paper719.pdf

5. Biased Advisors

The International Energy Agency (IEA) – an international body that advises most major governments across the world on energy policy - is obstructing a global switch to renewable power because of its ties to the oil, gas and nuclear sectors, according to Energy Watch - a group of politicians and scientists. IEA publishes misleading data on renewables, and has consistently underestimated the amount of electricity generated by wind power in its advice to governments. Energy Watch says IEA shows “ignorance and contempt” towards wind energy, while promoting oil, coal and nuclear as “irreplaceable” technologies. (1)

A new Energy Watch report says wind-power capacity has rocketed since the early 90s and that if current trends continue, wind and solar power-generation combined are on track to match conventional generation by 2025. (2) Rudolf Rechsteiner, a member of the Swiss parliament who sits on its energy and environment committee, and wrote the report, says the IEA suffers from “institutional blindness” on renewable energy, and they continue touting nuclear and carbon-capture-and-storage, classical central solutions, instead of a more neutral approach, which would favour new solutions.

(1) Adam, D. International Energy Agency ‘blocking’ global switch to renewables. Guardian, January 9, 2009 <http://www.guardian.co.uk/environment/2009/jan/08/windpower-energy>

(2) New report shows wind power experiencing exponential growth, Energy Watch Press Release, January 9, 2009.

http://www.energywatchgroup.org/fileadmin/global/pdf/2009-01-09_EWG_Press_Wind_Report.pdf

6. Jeopardizing UK lead in countdown to Copenhagen

In around 300 days’ time, 15,000 officials from 200 countries will gather in the Danish capital to find a solution to global warming. Known officially in UN-speak as COP 15, the 15th meeting of the parties of the UN’s Framework Convention on Climate Change, the meeting will try to work out a way for the world to act together. (1)

The penalty for failure could not be higher. In the 20 years since the world woke up to the danger of rising carbon emissions, three things have changed. First, the changing climate is now visible, not just in computer predictions – just look at Australia which has been suffering from the worst heat-wave in its history. (2) Second, it has become clear in the past five years that the earth is responding to the increasing CO2 loading of the atmosphere much more rapidly than scientists initially thought. Third, it has become apparent, even more recently, that global emissions of CO2 are shooting up at a rate that far exceeds anything the UN’s Intergovernmental Panel on Climate Change (IPCC) thought possible when it sketched out future emissions scenarios in a special report in 2000. Even though we have had 20 years to think about emissions cuts, and 11 years of the Kyoto protocol emissions are still soaring.

The UK Government may face a problem of reduced credibility in climate change terms as a result of two policy decisions – one already taken to allow Heathrow Airport to build a third runway; and the other, still awaited on whether or not to agree to a new coal-fired power station at Kingsnorth in Kent. The Government likes to claim that Britain can meet its overall goal of slashing carbon emissions by 80 per cent by 2050 and still allow for more flights and exotic holidays. Lord Turner of Ecchinswell, the climate change adviser at No 10, argues that by switching to electric cars, boosting energy efficiency and slashing carbon emissions from power generation by building wind farms and new nuclear plants, Britons can so drastically cut output in other areas that they could keep on flying – and still cut emissions and fight climate change at the same time. (3)

It is true that aircraft are becoming slightly more efficient and that worldwide aviation accounts for about 2 per cent of global CO2 emissions. But aviation is expected to grow to 5-6% of global emissions by 2050. Moreover, the technology to fly aircraft without burning large quantities of fuel does not exist. As the World Development Movement pointed out, the new runway would produce the same level of emissions as Kenya every year. (4) Assuming that the runway is built, Heathrow would become the biggest single emitter of carbon in the country. (5)

The Government’s pledge to cap aviation emissions lacks teeth. Without a dramatic breakthrough in technology, the increase in flights would overwhelm any benefit from negligible increases in aircraft efficiency. This is a decision that may pay lip service to emission cuts, says The Times, but which appears to be driven chiefly by commercial pressure from the aviation lobby, the CBI and some of Britain’s biggest companies.

The government’s Sustainable Development Commission (SDC) says the amount taken up by aviation would severely restrict future generations’ ability to decide what they want to do about emissions from homes, food production and other forms of travel. (6) SDC says pressing ahead with the expansion without an independent review of aviation is irresponsible. Commissioner Hugh Raven, former chair of Labour’s environment

campaign group – the Socialist Environment Resources Association – says “It is clear that even the most optimistic estimates for cleaner aircraft technology will not be enough to allow aviation to grow in line with DfT [Department for Transport] predictions without resulting in increased emissions, and meanwhile the Committee on Climate Change describes current scientific understanding of aviation’s other effects on climate change as only ‘fair to poor’.” (7)

SDC chair, Jonathon Porritt, says the decision “makes a nonsense of the Government’s new Climate Change Act. In the process, it jeopardizes the ability of the UK Government to take a lead in crucial climate negotiations over the next few years.”

(1) McCarthy, M. UN Climate Conference: the Countdown to Copenhagen. Independent, January 9, 2009 <http://www.independent.co.uk/environment/climate-change/un-climate-conference-the-countdown-to-copenhagen-1242601.html>

(2) Lean G, and Marks K. Parched: Australia faces collapse as global warming kicks in. Independent on Sunday, February 1, 2009. <http://www.independent.co.uk/news/world/australasia/parched-australia-faces-collapse-as-climate-change-kicks-in-1522529.html>

(3) Pagnamenta, R. Red faces at green claims. The Times, January 16, 2009 <http://www.timesonline.co.uk/tol/news/environment/article5527008.ece>

(4) “Flights from Heathrow’s third runway will emit same greenhouse gas emissions as Kenya”, WDM Press Release, January 15, 2009 <http://www.wdm.org.uk/news/heathrow15012009.htm>

(5) The Case Against Airport Expansion, Greenpeace Briefing, January 2009

<http://www.greenpeace.org.uk/files/pdfs/climate/case-against-heathrow-expansion.pdf>

(6) Jowitt, J. Economics, pollution, jobs and noise: how the arguments stack up. Guardian, January 16, 2009 <http://www.guardian.co.uk/environment/2009/jan/16/heathrow-expansion-questions-key>

(7) Heathrow expansion without independent review of UK aviation is irresponsible, SDC Press Release, January 15, 2009.

<http://www.sd-commission.org.uk/news.php/2/sdc-heathrow-expansion-without-independent-review-of-uk-aviation-is-irresponsible>

7. Building reactors and nuclear waste stores on land liable to be submerged

The Government has published its finalised criteria for assessing proposed sites for new reactors. It has now given the nuclear industry two months to the end of March to nominate sites. (1) The criteria include conditions that new sites should not be near major population centres or certain types of military activity. But a ban on locating reactors in areas susceptible to earthquakes has been lifted. (2)

The Nuclear Decommissioning Authority, which as recently as last August said it would lose its ‘social licence to operate’ if it supported new nuclear build, will nominate four sites. Its plan to sell land for new build to ‘maximise its assets’ was already stretching the point, but nominating sites is not the act of a neutral organization. (3) The sites are Bradwell, Oldbury, Wylfa and Sellafield. EDF intends to nominate Hinkley Point, Sizewell, Heysham, Hartlepool and Dungeness. (4)

Professor Andrew Blowers, writing in the Town and Country Planning Association’s (TCPA) journal, (5) says power profit and pragmatism are dictating the siting criteria and a return to the ‘decide-announce-defend’ approach to decision-making. The criteria amount to nothing less than a means of trying to justify putting a new generation of mega power stations and spent fuel waste stores on existing coastal sites most of which are likely to become submerged during the next century under the impact of sea level rise and storm surges. (6)

(1) DECC Press Release 27th Jan 2009

<http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=390875&NewsAreaID=2&NavigatedFromDepartment=False>

(2) BBC 27th Jan 2009 http://news.bbc.co.uk/1/hi/uk_politics/7854431.stm

(3) NDA 23rd Jan 2009 <http://www.nda.gov.uk/news/land-and-new-nuclear.cfm>

(4) EDF Press Release 27th Jan 2009 http://www.edfenergy.com/media-centre/press-news/EDF_Energy_welcomes_Government_announcement_on_nuclear_sites.shtml

(5) TCPA Press Release 27th Jan 2009

http://www.tcpa.org.uk/press_files/pressreleases_2009/20090127_SitingNPP.doc

(6) Blowers, A. Why Dump on Us? TCPA, Jan 2009

http://www.no2nuclearpower.org.uk/reports/Nucl_Siting3.pdf

8. Green Gas

Gas from waste could heat almost half the homes in the UK, according to the National Grid. It says obtaining more gas from waste will help cut carbon emissions, improve energy security and compensate for the shortage of landfill sites. Renewable gas from landfill sites and sewage works provide 1% of the UK’s gas at present.

National Grid said the main hurdle would involve getting commercial incentives for waste to be turned into biomethane for injection into the gas grid rather than electricity, which is much less efficient than using the existing gas grid to pipe the gas to heat homes. The Department of Energy and Climate Change said: "Government set out its policies on recovering energy from waste in its Waste Strategy 2007. Further work is taking place in the context of our Renewable Energy Strategy to establish what potential might exist for biogas injection to the gas grid." (1)

The National Grid report will contribute to the growing debate about heat, which produces 47% of the UK's CO2 emissions - much more than electricity or transport. The government will soon launch a consultation on a heat strategy. (2)

(1) Telegraph 2nd Feb 2009

<http://www.telegraph.co.uk/earth/greenerliving/4431157/Sewage-could-be-used-to-heat-half-the-homes-in-Britain.html>

(2) BBC 2nd February 2009

<http://news.bbc.co.uk/1/hi/sci/tech/7862696.stm>