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1. **Corruption of Governance**

The authors of the Corruption of Governance (CoG) report (1), Ron Bailey and Lotte Blair (See NuClear News No.37 February 2012), which showed how Ministers and MPs were given false information regarding the alleged need for new nuclear power, have sent round an update which they say shows how Ministers have been given false information to send out to members of the public who have raised this issue with them.

The Under Secretary of State for Energy and Climate Change, Lord Marland's, response to letters says the underlying evidence is that nuclear power will be needed to meet the 80% reduction in carbon emissions by 2050. In fact the government's own evidence in its Pathways document and calculator tool does not '*show that nuclear will be needed to achieve these legally binding targets*'. In fact it shows exactly the opposite, as explained in the CoG report on pages 6-10.

Lord Marland says the Government has set out the evidence for its assertion that electricity demand may double by 2050 based on the 2050 Pathways Analysis. (2) This is misleading because seven of the sixteen scenarios in the 2050 Pathways Analysis do not envisage a doubling of electricity demand. But this was ignored in the letter, which selectively quotes the Pathways evidence. What the Pathways analysis actually shows, based on what the Government says is 'robust' evidence, is that electricity demand does **not** need to double.

Interestingly the National Policy Statement on Energy (EN-1) states that '*new nuclear is likely to become the **least expensive** form of low carbon electricity generation*'. Lord Marland's letter now only says nuclear will be 'price competitive...with **many** other forms of low carbon technologies'. Note the word '**many**' – not '**all**'. So it seems to have emerged that the Government view now is that nuclear is not the cheapest, as MPs were previously told.

The CoG authors also highlight an article by Ravi Gurumurthy, DECC's Director of Strategy, in which he says: "*All of our main scenarios for 2050 tell us that we need to plan to meet an increase in demand of between a third and two thirds, as transport and heating shift onto the electricity grid.*" (3) So not a doubling of demand at all.

Gurumurthy goes on to say: "*...no one can yet say for sure what the relative costs will be decades hence...*" If this is true, surely the Government should not have claimed in EN-1 that '*new nuclear is likely to become the least expensive form of low carbon electricity generation.*'

The CoG authors say there is turmoil in DECC over their report, so they want letters to MPs, and the Energy Minister, Greg Barker. They are also asking people to write to Joan Walley MP, Chair of the Environmental Audit Committee to ask her to get her Committee to investigate this matter.

- (1) A Corruption of Governance? How Ministers and Parliament were Misled. ACE and Unlock Democracy, January 2012 [http://www.ukace.org/publications/ACE%20Campaigns%20\(2012-01\)%20-%20Corruption%20of%20Governance%20-%20Jan%202012](http://www.ukace.org/publications/ACE%20Campaigns%20(2012-01)%20-%20Corruption%20of%20Governance%20-%20Jan%202012)
- (2) 2050 Pathways, 2011, DECC March 2011, <http://www.decc.gov.uk/assets/decc/Consultations/2050/1343-2050-pathways-analysis-response1.pdf>
- (3) <http://blog.decc.gov.uk/2012/03/05/future-consumers-would-not-thank-us-for-looking-for-an-energy-policy-in-the-bargain-basement/>

2. Former FoE Directors Get Nuclear Active

Jonathon Porritt, Tom Burke, Charles Secrett and Tony Juniper have produced a series of six briefings to help inform the public debate about nuclear power. On 12 March, they wrote to the prime minister to warn him that his current proposals will end in failure. As yet, they have not received a reply.

The briefings are:

- Subsidising the Nuclear Industry
- Investing in Nuclear: Current Concerns
- The New Nuclear Industry
- The Wider Economic Impacts of Nuclear Power
- Why Nuclear Power is Not the Answer for Climate Change or Energy Security
- Nuclear Power: A Toxic Issue for the Coalition Government

The briefings are available here:

<http://www.jonathonporritt.com/Campaigns/nuclear>

and

<http://tomburke.co.uk/2012/05/02/uk-energy-policy-will-fail-if-government-persists-with-nuclear-fantasies/>

3. Nuclear plans hanging by a thread

Energy policy is hanging by a thread, according to *The Times*, after EDF Energy, increased the estimated cost of an EPR reactor from £5bn to £7bn. The soaring estimated costs could scupper EDF Energy's project to build two reactors at Hinkley Point leaving UK energy policy in tatters. EDF Energy will decide by the end of the year whether to proceed with the £14 bn plan, but experts said that the rising costs — and its parent company's deteriorating financial position — made this less likely.

EDF Energy has briefed its partner Centrica about the internal cost review, which makes it even harder for the owner of British Gas to come on board. Speculation has mounted in recent weeks that Centrica will pull out of the joint venture, for which it would have to pay a fifth of the costs.

It is understood that the rise in costs for Hinkley Point is based in part on EDF Energy's experience in building its first "third generation" modern reactor in Flamanville, France. The facility was supposed to be completed this year but is four years behind schedule. Mott MacDonald, said that the UK supply chain had no experience in carrying out the requisite civil works, such as pouring concrete for a reactor base. He said that the £14 bn price for the reactors would put even more pressure on the Government to offer big subsidies for nuclear power to persuade EDF Energy to go ahead. (1)

Meanwhile *The Times* speculates that the French government will order EDF to divert billions of euros intended for new UK reactors back into the French domestic power market. With the new French President, Francois Hollande planning to slash French reliance on nuclear power by 25 per cent by 2025, it is argued that EDF could be forced to switch billions of euros to fund investment in French renewables and energy efficiency schemes. At the very least, British energy executives expect the election of Mr Hollande to delay EDF's plans. His administration is likely to review EDF's strategy and possibly replace its leading executives, who, effectively, are political appointees.

Mykle Schneider, a Paris-based nuclear energy consultant and former adviser to the French government, said that EDF's investment plans in Britain were at risk even before Mr Hollande's electoral victory. "*Considering EDF's huge debts, it's quite likely that reviewing the investment programme planned for the UK, which EDF had drawn up under previous governments, is top of the agenda. If EDF has to divert investment from nuclear at home into things like energy efficiency and renewables, it leaves even less money available for the UK.*" (2)

Writing in Japan Times, Schneider points out that while nuclear plants provide 75% of France's electricity, this equates to only 17% of the final energy compared to close to half still being provided by oil. France's per capita oil consumption in France is as high, or higher, than in Germany, Italy, the UK or even the European Union on average. In 2011, the foreign trade deficit reached a historic record of 70 billion euros — most of it due to oil and gas imports — while Germany registered a 158 billion surplus. When freezing weather hit Europe in early February, France's neighbours made available up to 13,000 MW net to save the French grid from collapsing. Of this, 3,000 MW came from Germany, which has shut down half of its nuclear fleet. This is the result of irrational policy incentives that have pushed electric space heating into one-third of existing and three-quarters of new homes. As a result, every degree Celsius drop in temperature increases capacity needs by 2,300 MW. Furthermore, energy poverty now affects about 4 million French households. Despite its political support, the financial sector is increasingly nervous of France's nuclear titans. EDF has a debt burden of over 33 billion and its share value has plunged 78% since 2007. AREVA, the biggest nuclear builder, filed a 2.4 billion loss for 2011, its share value crashed by 75% over the past five years and its credit-rating is just one notch off "junk bond" level. The French nuclear industry is in bad shape. Public opinion has shifted dramatically with various polls indicating three-quarters of the population now in favour of a nuclear phase-out.

- (1) Times 7th May 2012 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3406852.ece>
- (2) Times 8th May 2012 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3407585.ece>
- (3) Japan Times 19th April 2012 <http://www.japantimes.co.jp/text/ea20120419a1.html>

4. Broken Promises: Subsidising the Nuclear Industry

Following on from the *Energy Acts 2008, 2010 and 2011*, the Government intends to launch a further Energy Bill in the Queen's Speech on 9th May 2012. This will implement the remaining parts of the so-called Electricity Market Reform (EMR) including 'contracts for difference' to incentivise new nuclear build, as well as a 'capacity mechanism', to allow for capacity payments. (1)

The UK Coalition Agreement allows the Government to promote the construction of new nuclear reactors provided they receive "no public subsidy". (2) The new Secretary of State for Energy, Liberal Democrat MP Chris Huhne told *The Today Programme* just after the May 2010 General Election,

that, despite previously being anti-nuclear, he might oversee new reactor construction if power companies can do it without government subsidy. The key point, Huhne stressed, on which there was agreement within the coalition Government, is **the principle there will be no public subsidy**. (3)

But it was clear to almost everyone by December 2010 when the Government launched its plans for Electricity Market Reform (EMR) that it was planning to break its promises and subsidise new reactors. *The Telegraph* said years of lobbying had finally paid off for the industry. (4) *The Guardian* said: “Ministers are planning to subsidise nuclear power through electricity bills – despite their promises not to.” (5)

Former Labour Environment Minister, Michael Meacher says:

“The Coalition is about to rig the market through its so-called Electricity Market Reform programme which is aimed to favour nuclear at the expense of every other alternative. It will absorb huge amounts of direct and indirect subsidy even though the government has repeatedly and solemnly intoned that there will be no public subsidy at all for the building of new nuclear. In fact there will be a triple subsidy – a capacity payment, a carbon floor price, and a low carbon ‘contract for difference’.” (6)

There are four main elements to the Electricity Market Reforms (EMR) (a) a Feed-in Tariff with Contracts for Difference (CfD-FiTs); (b) a Capacity Mechanism; (c) a Carbon Floor Price (CFP); and (d) the Emissions Performance Standard.

CfD-FiTs

A CfD-FiT is a long-term contract between an electricity generator and a ‘contract counterparty’ which enables the generator to stabilise its revenues at a pre-agreed level (the strike price) for the duration of the contract. Under the CfD-FiT payments would flow from contract counterparty to the generator, and vice versa. So when the market price for electricity is below the strike price, payments would flow from the contract counterparty to the generator. When the market price is above the strike price, payment would flow from the generator to the contract counter party. (7)

The CfD-FiT provides a subsidy to nuclear reactors in two ways:

- Firstly the strike price is likely to be higher than the long-term average of electricity prices, so payments will mostly be flowing to the generators. There will almost certainly be no competitive bidding within the sector because there is only likely to be one supplier – EDF Energy.
- Secondly it transfers risk from generators to consumers both by providing long-term contracts above market rates and by ensuring that generators are compensated when the market price falls below the strike price. One consequence of this will be a reduction in the cost of capital for nuclear generators so a simple proxy for subsidy would be to compare the interest rate offered with a CfD to the one that would have been offered without a CfD. However, no company anywhere has seriously tried to finance a nuclear plant to operate unprotected in a competitive electricity market, probably because it is known such a plant would be unfinanceable.

So CFD-FiTs will virtually dispense with the free market in energy, replacing it with fixed long-term contracts, set as a result of auctions regulated by the government.

The Government published its proposals for the institutional framework for EMR in December 2011. It is proposing to ask the System Operator within National Grid to implement both the CfD-FiT (i.e. to act as the contract counterparty) and the Capacity Market. Discussions between Government and

National Grid are underway with a view to agreeing precisely how the System Operator will fulfil this role and the exact nature of the relationship between Government and the System Operator. (8)

David Simpson, global head of mergers and acquisitions at KPMG says he expects the UK government to offer 35-year deals which could be illegal state aid under European Union competition rules. (9)

The issue of whether CfD-FiTs would amount to subsidy may be answered shortly if the Government follows through on its indications that it anticipates making a Phase II State Aid application for any interim CfD. This means the Government will ask the Commission for permission to introduce the CfD-FiTs – in other words it believes they will count as a subsidy to nuclear but may be a permitted exemption. (10)

Fiona Hall, leader of the Liberal-Democrat group in the European parliament, says she has no doubt the CfD-FiT is a subsidy. (11) She has called for Liberal Democrats to speak out against this public subsidy for nuclear energy, which goes completely against the Coalition Government Agreement. She says if a CfD-FiT goes ahead British consumers may find themselves subsidising nuclear technology for over 40 years, the average lifespan of a nuclear reactor, solely to keep in profit the one remaining interested power company, France's EDF. Billions of pounds will be diverted from the wind and marine energy sectors where the UK's natural advantage lies, hampering British industrial leadership in these sectors and risking a major loss of business opportunities and new jobs. (12)

The UK government has not yet achieved European Commission assent to its proposed electricity market reforms, considered essential to enable new nuclear build. According to written answers Minister of State for Energy Charles Hendry said the government is "*engaging closely with the European Commission to ensure the electricity market reform proposals are consistent with the appropriate rules.*" (13)

A document, which was leaked to *The Guardian*, lays out plans for the "contracts for difference" for the European Commission. It says: "*Our reforms will put in place a regulatory framework based on feed-in tariffs for all low-carbon technologies, which will allow younger technologies to mature so that in the near- to mid-term future they will be able to compete in the open market ... in time, we expect that this regulatory framework will enable different low-carbon technologies to compete against each other on a level playing field for their appropriate role in the energy mix.*"

This is the clearest evidence yet of government plans to subsidise nuclear power through the back door, by classifying it with renewables as "low-carbon power", despite repeated assurances that there would be no public subsidy.

The Guardian has also seen a presentation made by Scottish & Southern Energy (SSE) to MPs in March 2010, saying the plans contain "*hidden subsidies*", will be open to challenge on legal grounds, and could "*mess up*" funding for renewables. SSE says the government is bringing in the changes to "*hide the subsidy*" to avoid a furore. SSE notes the plans will have to "*clear state aid [rules], yet subsidy for a mature technology like nuclear is a likely stumbling block with the commission*". SSE said: "*We are concerned because if a nuclear subsidy messes up renewable support [there will be] massive uncertainty in our core market.*" (14)

The Secretary of State for Energy and Climate Change, Ed Davey, argues that nuclear will not receive a higher price than low carbon technologies, so there will be no public subsidy of nuclear generation. (15) In other words because the CfD-FiT put nuclear on the same footing as other forms of low-carbon energy, which will also receive a feed-in tariff, this is not a subsidy for nuclear power. But the plans are likely to come under severe attack in the European parliament particularly from the Greens who are preparing to take legal action against the government, arguing that the plans amount to state aid for nuclear. The CfD-FiTs will gradually replace existing subsidies for renewable which

were designed to assist new technologies such as wind or marine energy in expanding their deployment and reducing costs through economies of scale, thereby helping them reach market maturity. Fiona Hall MEP argues that it is wrong to apply the same mechanism to nuclear technology which has existed for over 70 years but has never achieved any cost reductions.

David Toke, senior lecturer in Energy Policy at Birmingham University, estimates that nuclear new build will need a strike price of over £150 MWh (15 p/KWh), making nuclear clearly more expensive than offshore windfarms. The process exposes the Government to the danger that nuclear power will be seen to be much more expensive than its previous public relations based calculations have suggested. (16)

Capacity Mechanism

A 'capacity mechanism' was also proposed in the 2011 White Paper (17) but it is not yet fully defined. Its main purpose is to address what the Government sees as the problem of 'resource adequacy': "... *how to ensure there is sufficient reliable and diverse capacity to meet demand, for example during winter anticyclonic conditions where demand is high and wind generation low for a number of days.*"

The Energy Fair group says when the Government's proposals in this area are more fully defined it may then be possible to see more clearly whether or how they provide a back-door subsidy for nuclear power. If, for example, they allow the government to help pay for the building of nuclear power stations that would be used only rarely, that would indeed be an unjustifiable subsidy for nuclear power. (18)

For further information on nuclear subsidies see:

A longer version of this article will appear on the Nuclear Spin website soon:

http://www.powerbase.info/index.php/Nuclear_spin

Nuclear Power Subsidies, or how to impoverish the nation. No2nuclearpower briefing May 2011.

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

(Shorter version for MPs, June 2011)

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

Subsidies for nuclear power in the UK government's proposed electricity market reform. Energy Fair, November 2011 http://www.mng.org.uk/gh/private/EMR_subsidies.pdf

Subsidising the Nuclear Industry: A briefing for the Government from Tom Burke, Tony Juniper, Jonathon Porritt Charles Secrett (former Directors of Friends of the Earth England Wales and Northern Ireland). 26th March 2012

http://tomburke.co.uk/wp-content/uploads/2012/03/subsidising_nuclear_26March.pdf

Nuclear Subsidies, Energy Fair Group, 9th April 2012

http://www.mng.org.uk/gh/private/nuclear_subsidies1.pdf

- (1) UK Parliament 19th April 2012 <http://www.parliament.uk/briefing-papers/SN06254>
- (2) The Coalition: Our Programme for Government, Cabinet Office, May 2010.
http://www.cabinetoffice.gov.uk/sites/default/files/resources/coalition_programme_for_governmen_t.pdf
- (3) Radio 4 Today Programme 13th May 2010
http://news.bbc.co.uk/today/hi/today/newsid_8679000/8679504.stm

- (4) Mason, R. *UK Government agrees to subsidise nuclear power companies prices*, Telegraph 16th December 2010 <http://www.telegraph.co.uk/finance/newsbysector/energy/8204683/UK-government-agrees-to-subsidise-nuclear-power-companies-prices.html>
- (5) Harvey, F. And Macalister, T. *Ministers planning hidden subsidies for nuclear power*, Guardian 20th April 2012. <http://www.guardian.co.uk/environment/2012/apr/20/coalition-u-turn-nuclear-energy-subsidies>
- (6) Michael Meacher 30th April 2012 <http://www.michaelmeacher.info/weblog/2012/04/the-nuclear-wheeze-goes-critical/>
- (7) *Planning our electric future: a white paper for secure, affordable and low-carbon electricity*, Department of Energy and Climate Change, July 2011. http://www.decc.gov.uk/en/content/cms/legislation/white_papers/emr_wp_2011/emr_wp_2011.aspx
- (8) *Planning our electric future: Technical Update*, DECC December 2011 <http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/energy-markets/3884-planning-electric-future-technical-update.pdf>
- (9) *Questions over funding for nuclear expansion*. Professional Engineering 3rd October 2011 <http://profeng.com/news/questions-over-funding-for-nuclear-expansion>
- (10) *Environmental campaigners complain to European Commission about nuclear 'subsidies'* Out-Law.com 24th Jan 2012 <http://www.out-law.com/en/articles/2012/january-/environmental-campaigners-complain-to-european-commission-about-nuclear-subsidies/>
- (11) Harvey, F. And Macalister, T. *Ministers planning hidden subsidies for nuclear power*, Guardian 20th April 2012. <http://www.guardian.co.uk/environment/2012/apr/20/coalition-u-turn-nuclear-energy-subsidies>
- (12) Hall, F MEP, *Subsidies for nuclear energy go against coalition agreement and economic sense*, Liberal Voice 18th April 2012 <http://www.libdemvoice.org/28132-28132.html>
- (13) Stellfox, D, *Hendry says EDF not stipulated carbon or strike price needed for Hinkley C; EC OK pending*, i-Nuclear 19th April 2012 <http://www.i-nuclear.com/2012/04/19/hendry-says-edf-not-stipulated-carbon-or-strike-price-needed-for-hinkley-c-ec-ok-pending/>
- (14) Harvey, F. And Macalister, T. *Ministers planning hidden subsidies for nuclear power*, Guardian 20th April 2012. <http://www.guardian.co.uk/environment/2012/apr/20/coalition-u-turn-nuclear-energy-subsidies>
- (15) Ed Davey writes there will be no public subsidy for nuclear. Liberal Voice 20th April 2012 <http://www.libdemvoice.org/there-will-be-no-public-subsidy-for-nuclear-28150.html>
- (16) David Toke's Green Energy Blog 5th May 2012 <http://realfeed-intariffs.blogspot.co.uk/>
- (17) *Planning our electric future: a white paper for secure, affordable and low-carbon electricity*, Department of Energy and Climate Change, July 2011. http://www.decc.gov.uk/en/content/cms/legislation/white_papers/emr_wp_2011/emr_wp_2011.aspx
- (18) *Subsidies for nuclear power in the UK government's proposed electricity market reform*. Energy Fair, November 2011 http://www.mng.org.uk/gh/private/EMR_subsidies.pdf

5. Nuclear Liabilities

The Government has confirmed its intention to increase the third party liabilities of operators in the event of a nuclear incident at the end of March 2012. (1) This follows a public consultation held in 2011 on the UK's proposals to implement changes made to an international treaty on nuclear third party liability – the Paris and Brussels Conventions, to which the UK and most of the other EU countries are signatories.

Among other things the Paris and Brussels Convention aims to ensure that victims of a nuclear incident can easily get compensation for damage as a result of a nuclear incident. But under the proposals nuclear operators will only have to pay the first £1bn towards the cost of any accident. This is a welcome increase on the previous cap on their liabilities of £140m, but it is still an explicit subsidy to the nuclear industry since all other power generators have to bear the full costs of their third party liability. By agreeing to cover any costs above £1bn the Government is clearly giving the industry a public subsidy.

To give an idea of the scale of this subsidy, BP has allocated \$41 billion to cover all claims arising from the Gulf oil disaster. (2) The estimated costs of the Fukushima clean up has been put at up to \$250 billion. (3) The cost of the Chernobyl accident can only be roughly estimated, but the magnitude of the cost is clear from a variety of government estimates from the 1990s, which put the cost of the accident, over two decades, at hundreds of billions of dollars. Belarus, for instance, has estimated losses over 30 years at US \$235 billion. (4)

The cap on nuclear liabilities was introduced because no company can obtain insurance against a nuclear accident – or would want to shoulder the risk themselves – because the costs could potentially be limitless. The cost of a worst-case nuclear accident at a plant in Germany, for example, has been estimated to total as much as €7.6 trillion (\$11 trillion). (5) A study by the insurance board of Leipzig estimates the maximum total loss from a nuclear accident at around €6 trillion. Even if a fund of €6 trillion were collected very slowly - over the next 50 years – insurance premiums would still amount to more than half a euro per kWh. Full insurance against nuclear disasters would increase the price of nuclear electricity by a range of values—€ 0.14 per kWh up to € 2.36 per kWh—depending on assumptions made. The study therefore, concludes that nuclear power is uninsurable. (6)

- (1) Nuclear Third Party Liabilities to be Increased Sevenfold, DECC 30th March 2012
http://www.decc.gov.uk/en/content/cms/news/pn12_036/pn12_036.aspx
- (2) Bawden, T & Webb, T *Court Order Halts BP talks with Rosneft*, Guardian 1st February 2011
<http://www.guardian.co.uk/business/2011/feb/01/bp-loss-gulf-oil-spill-resumes-dividend>
- (3) Fukushima clean-up could cost up to \$250 billion, News on Japan 1st June 2011.
<http://newsonjapan.com/html/newsdesk/article/89987.php>
- (4) Green Facts: <http://www.greenfacts.org/en/chernobyl/1-3/5-social-economic-impacts.htm>
- (5) Baetz, J *As Fukushima bill looms, nations weigh dilemma: nuclear plants viable only when uninsured*, Associated Press 21st April 2012 <http://www.1310news.com/news/world/article/215554--as-fukushima-bill-looms-nations-weigh-dilemma-nuclear-plants-viable-only-when-uninsured>
- (6) Schultz, S. *Researchers calculate horrendous liability costs for nuclear power*, Der Spiegel, 11th May 2011 <http://www.spiegel.de/wirtschaft/soziales/0,1518,761826,00.html#ref=nldt> The report from Versicherungsforen Leipzig GmbH, and associated documents, may be downloaded via links from <http://www.energyfair.org.uk/reports#liabilities> where press reports and other information may also be found.

6. Buyers on the Horizon?

An article in *The Times* (1) suggests that America's largest nuclear operator had been approached by a consortium of Toshiba and China's State Nuclear Power Technology Corporation (SNPTC). Exelon did not confirm or deny the report. (2)

SNPTC is leading China's nuclear new-build programme, which is the largest in the world. It is building reactors based on the Toshiba/Westinghouse AP1000 design. *The Times* says SNPTC had offered to stump up more than half of Horizon's costs before E.ON and RWE pulled out. In return, SNPTC and the Japanese nuclear group Toshiba wanted a 60% stake in the venture with the Germans owning the rest.

The newspaper says it is unclear if ministers and regulators would be prepared to accept such Chinese involvement. A completely different safety culture exists in China where there is little independent oversight of the nuclear industry. Authorities in Britain would probably be uneasy about any operational control exerted by SNPTC over the building or operation of the reactors. Politicians would also be reluctant to sanction an investment from the Chinese Government for fear of allowing Beijing to dictate British energy policy.

The Financial Times says at least two loosely formed consortia are weighing up rival bids for the Horizon. Western utilities, Chinese state-owned power companies and sovereign wealth funds are involved in talks. Another potential bidder is GDF, which is considering a joint bid with its Nugen

partner, Iberdrola. The other potential consortium involves Japan's Westinghouse, owned by Toshiba, with a western utility, a Chinese group – either China Guangdong Nuclear Power or China's State Nuclear Power Technology Corporation – and potentially a sovereign wealth fund. Exelon, a US power group, has also expressed an interest in buying Horizon. (3)

Russian state nuclear company Rosatom has also expressed an interest in entering the UK power market via Horizon. (4) It remains to be seen whether Britain will accept a Russian company with such a chequered history. Apart from being the firm that built Chernobyl, one of its senior executive was arrested last July on embezzlement charges. "*The appearance of Rosatom in new nuclear power projects is most likely to lower British people's level of trust in nuclear energy,*" according to Simon Harrison, director of energy for consulting company Mott MacDonald. British politicians might not approve Rosatom's approach because they do not want to rely too heavily on Russia for energy. According to The Express, the Government and intelligence services are 'freaked' about the Russians being potentially involved. (5)

Sergey Novikov, Rosatom's Director of Communications, told *The Daily Telegraph*: "*The British market is potentially attractive for Rosatom. Rosatom can give all guarantees that the construction of a NPP [nuclear power plant] in the UK will meet absolutely all international safety requirements and International Atomic Energy Agency standards.*" Rosatom reportedly hired KPMG to examine possible purchases, while UK PR firms are said to be competing for a contract to improve Rosatom's international image. (6)

The British government may find itself faced with an offer it can't refuse. Rosatom already supplies fuel to the Sizewell B plant, which it produces together with France's Areva. It has been exporting enriched uranium to British nuclear power stations for decades, while one of its daughter companies, Nukem Technologies, was involved in decommissioning several nuclear sites in Britain. Most recently, Rosatom and Rolls-Royce signed a memorandum of co-operation last summer under the eyes of important Russian and British political leaders. (7)

Rosatom has said it would propose building its Generation III+ pressurised water reactor, the 1200-MWe "NPP 2006" in the UK. A spokeswoman for the Office for Nuclear Regulation said April 11 that the UK regulator has not had any queries to date about reviewing a Russian reactor design. The ONR's GDA reviews of the Areva EPR and Westinghouse AP1000 took four years to complete through to the interim design acceptance confirmation phase. But a spokeswoman said, "*It is not possible to say exactly how long GDA would take on a new design; time and cost are very much dependent on a large number of factors, which are difficult to predict.*" It remains unclear who would be the nuclear operator for a Russian reactor if Rosatom were to buy Horizon Nuclear Power or take a stake in it. (8)

Meanwhile, the House of Commons Energy and Climate Change Committee is to take evidence from EON and RWE, along with Energy Minister Charles Hendry on 15th May as part of an inquiry investigating the feasibility of delivering on the timetable to have the first new reactor built by 2019 and the potential barriers to delivering new nuclear power stations more generally. (9) Tim Yeo, chairman of the energy select committee, said it was ominous that no buyer had come forward to purchase Horizon. He also warned he was "very alarmed" by the threat of withdrawal from Centrica. (10)

(1) Times 4th May 2012 <http://www.thetimes.co.uk/tto/business/industries/utilities/article3404222.ece>

(2) World Nuclear News 4th May 2012

http://www.world-nuclear-news.org/C_Horizon_scanning_0405121.html

(3) FT 3rd May 2012 <http://www.ft.com/cms/s/0/0728e95e-9538-11e1-8faf-00144feab49a.html>

(4) Moscow Times 2nd April 2012 <http://www.themoscowtimes.com/business/article/rosatom-reportedly-looking-at-uk-market/455969.html>

- (5) Express 15th April 2012 <http://www.express.co.uk/money/view/314659/UK-fears-Russia-s-nuclear-interest>
- (6) Telegraph 9th April 2012 <http://www.telegraph.co.uk/finance/newsbysector/energy/9194345/Russia-we-would-build-safe-UK-nuclear-plants.html> & This is Money 10th April 2012 <http://www.thisismoney.co.uk/money/news/article-2127804/Russian-nuclear-giant-built-Chernobyl-confirms-erecting-generators-Britain.html>
- (7) Telegraph 25th April 2012 <http://www.telegraph.co.uk/sponsored/russianow/business/9226085/Rosatom-nuclear-power-Britain.html>
- (8) i-Nuclear 12th April 2012 <http://www.i-nuclear.com/2012/04/12/rosatom-says-it-would-offer-the-npp-2006-russian-design-for-uk-new-build/>
- (9) Energy & Climate Change Committee 27th April 2012 <http://www.parliament.uk/business/committees/committees-a-z/commons-select/energy-and-climate-change-committee/news/nuclear-call-for-ev/>
- (10) FT 23rd April 2012 <http://www.ft.com/cms/s/0/580d67c4-8d62-11e1-9798-00144feab49a.html>

7. Omni-shambles

The collapse of the Government's nuclear policy is a somewhat overlooked part of its current omnishambles, says former Government Advisor and FoE Director Tom Burke. (1) The Government from the Prime Minister down is talking to anyone who will listen about buying Horizon. Even if you thought that it was a good idea to hand over control of your energy policy to Russian gangsters or the Chinese government, the really big problem with nuclear remains unsolved.

In order to borrow the £18 billion or so that would be needed to pay for two reactors each at Oldbury and Wylfa someone with very deep pockets is going to have to guarantee the loans. It won't be the British Government. Whoever it might be would be taking a big bet that a company with no track record in building nuclear power stations would be able to do so on time and to budget – something Areva with all its experience has so far found impossible. They would also be taking a very big bet that the Treasury will be willing to allow a 30 year lock-in to nuclear electricity costs that are on a par with off-shore wind.

Investment bank Citi Investment Research managing director Peter Atherton said the main problem was high up-front costs of building new nuclear, which is not sufficiently countered by the EMR. He said the EMR only covers power stations' revenue risk by guaranteeing a minimum amount the utility will receive for producing power. The risks of construction costs overrunning are not covered and, as a result, utilities will be deterred to invest in nuclear. "[UK's energy] targets are too ambitious because utilities do not have the money to fund the investment required in nuclear," he added. "Horizon's decision sends out a strong message - that **there's not a cat in hell's chance that utilities alone can fund this investment in nuclear.**" (2)

- (1) TomBurke.co.uk 30th April 2012 <http://tomburke.co.uk/2012/04/30/nuclear-policy-part-of-the-governments-omnishambles/>
- (2) New Civil Engineer 5th April 2012 <http://m.nce.co.uk/8628894.article>

8. Nuclear Investment

Britain's nuclear programme faces a new threat after the revelation that ratings agencies could downgrade French energy giant EDF and British Gas owner Centrica if they decide to build four reactors. A credit downgrade would be highly likely to spark a confrontation with shareholders because it would make it more expensive for the companies to borrow and could undermine the share price. US-based Moody's says building nuclear plants is risky because of the huge costs and uncertainties over future power prices. Britain's nuclear programme is could now cost EDF and Centrica £28 billion.

Senior executives at Centrica appear to be having growing doubts about whether to go-ahead with nuclear investment. Their anxiety stems from the fact that the Government and Centrica are far apart in their estimates of the level of price guarantees for providing nuclear-generated energy. Sources say that if Centrica pulls out because it cannot make the project finances work, then it would be clear that French taxpayers would be subsidising British energy users if the largely State-owned EDF goes ahead. (1) Centrica has told Whitehall officials that if the company does not receive assurances about the future price of nuclear-generated electricity it will pull out. EDF Energy would then have to decide whether to shoulder the huge costs of building nuclear plants in the UK on its own or seek another partner. (2)

Moody's Investors Service said RWE and E.ON's decision to abandon plans to build new nuclear power plants in the UK was "credit positive" for the two firms. Curiously, Moody's said the German withdrawal from the UK nuclear new build policy was also credit positive for EDF, because it will give the French company more bargaining power. (3) What the government certainly wants to avoid is being left with one potential operator that would have ministers over a barrel if it too threatened to withdraw, especially as the majority of EDF is owned by the French state. (4)

GDF Suez is the latest company to express nuclear reservations. The French firm, which has a joint venture with Spanish company Iberdrola called NuGen which is planning to build up to 3.6 gigawatts of new nuclear capacity at Sellafield, says it needs more financial incentives if it is to proceed. Gérard Mestrallet, chairman and chief executive of GDF, said he wanted talks with the government about the right fixed or minimum price for producing nuclear energy: "*We are, with our partners, going to take a decision in 2015. Today it is very difficult to invest in a nuclear power plant without clear visibility.*" (5) In other words the current regime outlined by the government would not justify its plans for a new facility at Sellafield. (6)

The French government is the biggest shareholder in GDF Suez with 36%. GDF Suez owns the Belgian nuclear company, Electrabel, and has just agreed to up its stake in International Power (IP) from 70 to 100%. IP operates key power stations around Britain including the gas-fired plant at Satend near Hull and a coal-fired facility at Rugely, in Staffordshire, as well as many others abroad.

The news that the UK's nuclear power programme is once again facing difficulties will not have come as a surprise to anyone that has followed energy policy over the past year. Gaynor Hartnell, the Renewable Energy Association (REA)'s chief executive. "*In comparison with nuclear and carbon capture and storage, renewables win hands down. Renewable energy is cheaper, proven and reliable. It assists with security of supply, creates more jobs, the fuel doesn't run out, and there is no need to find permanent storage for wastes -which must be isolated indefinitely.*" (7)

- (1) This is Money 7th April 2012 <http://www.thisismoney.co.uk/money/markets/article-2126499/UK-nuclear-programme-risk-Moody-s-credit-alert.html>
- (2) FT 20th April 2012 <http://www.ft.com/cms/s/0/bb7f393c-8af0-11e1-912d-00144feab49a.html> and Dow Jones 22nd April 2012 <http://www.foxbusiness.com/news/2012/04/22/centrica-threatens-to-pull-out-nuclear-plant-plan-ft/>
- (3) i-Nuclear 2nd April 2012 <http://www.i-nuclear.com/2012/04/02/moodys-says-german-withdrawal-credit-positive-decision-gives-edf-bargaining-power/>
- (4) Guardian 16th April 2012 <http://www.guardian.co.uk/environment/2012/apr/16/nuclear-renaissance-toxic>
- (5) Guardian 16th April 2012 <http://www.guardian.co.uk/business/2012/apr/16/gdf-suez-nuclear-reservations-gerard-mestrallet>
- (6) Guardian 16th April 2012 <http://www.guardian.co.uk/environment/2012/apr/16/nuclear-renaissance-toxic>
- (7) Renewable Energy Focus 18th April 2012 <http://www.renewableenergyfocus.com/view/25223/mar-apr-preview-nuclear-looks-to-slower-renaissance/>

9. Local council blow to search for nuclear sump site

In a major vote of no-confidence, the Cumbria Association of Local Councils (CALC) has said it does not consider "credible or viable" the UK government process for siting a geological disposal facility (GDF) for nuclear waste. CALC has represented town and parish councils on the West Cumbria MRWS (Managing Radioactive Waste Safely) Partnership for three years. CALC's participation in the MRWS Partnership was based on a position statement agreed with its member councils in September 2009 that required a neutral position to be adopted on the merits or demerits of a siting a GDF in West Cumbria. But CALC said this week that it has changed its position. "*In view of the absence of clear support from parish councils and the community generally and the number of serious shortcomings in the prospective MRWS process in West Cumbria, CALC does not consider the programme as currently envisaged to be credible or viable,*" the association said. (1)

56% of local and Parish Councils from Allerdale and Copeland responded to the consultation. Of those 65% said no to moving on to the next stage of the process. (2)

- (1) i-Nuclear 24th April 2012 <http://www.i-nuclear.com/2012/04/24/local-governments-give-vote-of-no-confidence-in-uks-geological-disposal-process/>
- (2) CALC 23rd April 2012 http://www.calc.org.uk/Images/Statistics%20re%20Stage%204_tcm131-317748.doc

10. European Stress Tests

Commissioner Guenther Oettinger, The EU's energy chief, deemed the almost year-long study on nuclear plant safety in Europe as short on detail and numbers and demanded further work before publication of the critical report. "Going deep is more important than being fast," so the final report will be available to the public in the autumn rather than in the summer, as scheduled. (1) He said there will now be additional visits to power plants and analysis some safety aspects in more detail. (2)

The peer reviewed country report for the UK says "In the area of extreme natural hazards all the issues are addressed in the report. During the stress test process, Electricité de France Energy Nuclear Generation Ltd (EDF-NGL) concluded that it was not in position to carry out meaningful margin assessment for seismic, flood or extreme weather conditions in the timescales of the stress test assessment. ONR considers the design basis requirements to be robust and that the design basis events used by licensees are reasonable. Nevertheless ONR considers that existing methodologies may benefit from a review against the latest approaches and that additional, more systematic work on margins is required for beyond design basis events and identification of cliff edges. It is therefore difficult to fully evaluate safety margins at this time." (3)

- (1) EU Business 27th April 2012 <http://www.eubusiness.com/news-eu/energy-nuclear.g7n>
- (2) eGov Monitor 27th April 2012 <http://www.egovmonitor.com/node/49632>
- (3) ENSREG 26th April 2012 <http://www.ensreg.eu/sites/default/files/Country%20Report%20UK%20Final.pdf>

11. Hinkley

The Nuclear Free Local Authorities (NFLA) has jointly submitted to the Planning Inspectorate's National Infrastructure Inspectorate (NII) with the Stop Hinkley Campaign a formal response to the planning inquiry over the proposed construction of a new nuclear power station at the Hinkley Point site in Somerset, South West England. The submission focuses particularly on concerns over radioactive waste management, flooding, and emergency planning. The submission also notes real concerns around a democratic deficit with this planning process.

The proposals require Somerset to play host to the equivalent of one sixth of the high level waste already created by the UK's nuclear programme for perhaps as long as 160 years. This is a heavy burden to ask any community to bear. The Fukushima Dai-Ichi accident has revealed the folly of operating several nuclear power plants in a high consequence earthquake zone, but it also showed the folly of storing huge amounts of highly radioactive spent fuel in vulnerable pools. (1)

Meanwhile, NFLA has also published a briefing on the transport of radioactively contaminated steam generator from Berkeley in Gloucestershire to Sweden. (2)

(1) New Nuclear Monitor No. 27 May 2012

http://www.nuclearpolicy.info/docs/nuclearmonitor/NFLA_New_Nuclear_Monitor_No27.pdf

(2) NFLA Briefing No. 95 10th April 2012

[http://www.nuclearpolicy.info/docs/briefings/A209_\(NB95\)_Berkeley_Sweden_transport.pdf](http://www.nuclearpolicy.info/docs/briefings/A209_(NB95)_Berkeley_Sweden_transport.pdf)