Energy Fair

NEWS RELEASE

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NEW-BUILD NUCLEAR POWER: A HIGH-RISK GAMBLE

New report says there are five major areas of risk in putting money into new nuclear plants

According to a new report from the Energy Fair group (PDF, bit.ly/yLM7y4), anyone considering investing in new nuclear plants faces five major areas of risk: market risk, cost risk, subsidy risk, political risk and construction risk.

By the time any new nuclear plant could be built in the UK (2020 or later), the market for its electricity will be disappearing, regardless of any possible increase in the overall demand for electricity. The tumbling cost of photovoltaics (PV) and the falling costs of other renewables, with the likely completion of the European internal market for electricity and the strengthening of the European transmission grid, means that consumers, large and small, will be empowered to generate much of their own

electricity or to buy it from anywhere in Europe -- and this without the need for subsidies. Explosive growth of PV is likely to take much of the profitable peak-time market for electricity. And there will be stiff competition to fill in the gaps left by PV, from a range of other sources, many of which are better suited to the gap-filling roll than is nuclear power.

There is good evidence that, contrary to the often-repeated claim that nuclear power is cheap, it is one of the most expensive ways of generating electricity. The inflation-adjusted cost of building new nuclear power stations has been on a rising trend for many years, and will be boosted by the introduction of new safety measures after the Fukushima disaster. Meanwhile, the cost of most renewable sources of power is falling.

Although nuclear power is a long-established industry which should be commercially viable without support, it depends heavily on subsidies. This is a clear breach of the principle of fair competition. At any stage, some or all of the subsidies may be withdrawn, either via complaints to the European Commission, or via the European Court of Justice, or via decisions made by politicians. Energy Fair has already submitted a complaint to the Directorate General for Competition of the EC about subsidies for nuclear power. State aid which is deemed to be illegal must be repaid. Consumers may refuse to pay surcharges on electricity bills. There is additional subsidy-related risk arising from the great complexity of government proposals in this area, with its potential for unexpected and unintended consequences.

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Apart from the risk that politicians may decide to withdraw some or all of the subsidies for nuclear power, it is vulnerable to political action arising from events like the nuclear meltdowns in Fukushima. That disaster led to a sharp global shift in public opinion against nuclear power and it led to decisions by politicians to close down nuclear power stations and to accelerate the roll-out of alternative sources of power. The next nuclear disaster — and the world has been averaging one such disaster every 11 years — is likely to lead to even more decisive actions by politicians, perhaps including the closing down of nuclear plants that are still under construction or are relatively new.

The delays and cost overruns in the Olkiluoto and Flamanville nuclear projects are just recent examples of nuclear projects where actual build times and actual costs greatly exceed what was estimated at the outset. But the extraordinary complexity of nuclear power stations — which is likely to increase, after Fukushima, with the added complexity of new safety systems — means that construction risk will remain a major hazard for investors for the foreseeable future.

In general, renewables can be built much faster than nuclear power stations, they are cheaper than nuclear power (taking account of all subsidies), they provide greater security in energy supplies than nuclear power, they are substantially more effective in cutting emissions of CO_2, there are more than enough to meet our needs now and for the foreseeable future, they provide diversity in energy supplies, and they are largely free of the several problems with nuclear power.

The commercial opportunities lie in renewable sources of power. They are growing fast while the numbers of operating nuclear plants in the world is falling. Renewables are, commercially, much less risky than nuclear power.

“This report is essential reading for anyone considering putting money into new nuclear power stations.”

“Energy Fair has provided an excellent review of the risks facing investors in new nuclear plants.” said Ivan Kotev, an analyst with the consultancy firm Candole Partners. “The accessible language, the abundant bibliographical evidence, and current examples make the report important reading not only for investors and policy-makers worldwide, but for all stakeholders concerned with nuclear energy. The report makes the already questionable economics of new nuclear plants appear even less convincing.”

“This is an excellent piece of work” said Tom Burke CBE, Founding Director of the campaigning group E3G. “It is essential reading for anyone considering putting money into new nuclear power stations. The downside of any such investment is much greater than any possible upside and contrasts starkly with the huge opportunities that are opening up in renewable sources of power.”

NOTES

1 The latest version of the report from Energy Fair, called “The financial risks of investing in new nuclear power plants” may be downloaded as a PDF file from bit.ly/yLM7y4. The original version of the report may be downloaded via bit.ly/zGgbHF.

2 Research by Energy Fair shows that, in general, renewables can be built much faster than nuclear power stations, they are cheaper than nuclear power (taking account of all subsidies), they provide greater security in energy supplies than nuclear power, they are substantially more effective in cutting emissions of CO_2, there are more than enough to meet our needs now and for the foreseeable future, they provide diversity in energy supplies, and they have none of the many problems of nuclear power. For more detail, with links to relevant sources of information, see www.energyfair.org.uk/oppcost .

3 Around the world, the average annual growth of wind power in recent years has been more than 27% (bit.ly/A5fWmx) and the annual growth in solar power has been about 30% (bit.ly/zFs1W1). In 2010, the worldwide growth of solar power was an impressive 70% (reut.rs/wWhSoi). Meanwhile, the number of operational nuclear power plants in the world is shrinking.

4 The tumbling cost of PV and the falling cost of other renewables is likely to lead to an explosive growth of PV and substantial growth in clean power from such things as onshore and offshore wind power, combined-heat-and-power (CHP), wave power, power from tidal streams and tidal lagoons, power from biomass, biogas and biomethane, enhanced geothermal systems (EGS), hydropower, and large-scale generation of solar power and wind power in desert regions. Another ‘dash for gas’ (bit.ly/GHu9Mj) may also undermine the market for UK nuclear electricity. Although there may be increases in demand from the electrification of road transport, there are likely to be reductions in demand from super-insulation of buildings and the roll-out of super-efficient LED lighting.

5 It is expected that, by 2020, the long-awaited European internal market for electricity will be completed (bit.ly/x4USEv), a development that the Government supports. It is also expected that bottlenecks in transmission will be eased and the European transmission grid will be stronger (bit.ly/wdqtz1). In general, transmission links can be built quite fast. For example, it took only 18 months to complete the ‘BritNed’ link between the Netherlands and the UK (bit.ly/xrNCew).

6 A formal complaint about subsidies for nuclear power has been made by Energy Fair to the European Commission (DG Competition), see www.energyfair.org.uk/actions.

7 Research by the Energy Fair group has identified several existing subsidies for nuclear power and some potential new subsidies. They are summarised in “Forms of support for nuclear power” (PDF, bit.ly/zYGR2Q) and described more fully in the following two documents, each with an executive summary:

* “Subsidies for nuclear power in the UK government’s proposals for electricity market reform” (PDF, bit.ly/zrgCQ9). Mainly about proposed new subsidies.

* “Nuclear Subsidies” (PDF, bit.ly/yn1T9s). Mainly about existing subsidies.

8 An Arabic translation of this news release is here: bit.ly/y5OWK5 (PDF).

9 *Contact:* Dr Gerry Wolff PhD CEng, Coordinator, Energy Fair, gerrywolff65@gmail.com, +44 (0) 1248 712962, +44 (0) 7746 290775, www.energyfair.org.uk or sg.sg/wL2NrJ, 18 Penlon, Menai Bridge, Anglesey, LL59 5LR, UK.