

WE'VE GOT THE POWER

by Jeremy Leggett



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EUROPEAN GOVERNMENTS SEEM CONVINCED NUCLEAR IS THE WAY TO GO. BUT WHAT ABOUT THE ALTERNATIVES?

The nuclear industry needs to start again, its new boss has admitted. I agree. It should admit defeat, phase itself out and refocus on renewables and energy efficiency.

On 19 November, incoming Électricité de France (EDF) executive chairman Henri Proglio told the French daily *Les Échos* that he wants to 'have a French nuclear industry that works. That means that we have to rethink the whole industry.'

EDF, let us recall, is owned by the French government. And France currently produces almost 80% of its electricity from nuclear power. This was a government-appointed official speaking about an energy system currently vital to the effective operation of the French economy.

Why would he come to such a damning conclusion: effectively, that the French nuclear industry – held up to the world by nuclear advocates as the example we should all aspire to – is broken? To help us understand, it is instructive to look at the industry's experience in just one calendar month: the month of Proglio's appointment.

ON THE DAY OF PROGLO'S FRANKNESS WITH the French press, the *Economist* – long a supporter of aggressive nuclear programmes – described in shocking detail the fragility of EDF's nuclear campaign and the related issue of its stretched finances. Having acquired British Energy and Constellation Energy, EDF supposedly plans to build eleven new reactors: four in Britain, four in America, two in China and one in France. It also plans to form consortia building four plants in Italy, and is bidding to build several in the United Arab Emirates. But EDF's debt stands at some €37bn (\$53bn) – more than half the debt held by Dubai, which later in the month defaulted on bond repayments, causing a fresh wave of panic in stock markets around the world. Meanwhile, almost one-third of EDF's 58 French reactors had been out of service. As a consequence, and for the second year running, France will have to import electricity at peak hours during the winter to avoid the risk of blackouts.

EDF's reactor-building timetable is another train wreck. Areva, the French nuclear engineering company – also owned by the French government – is charged with building the next generation of reactors. It has two pilot plants under way, one at Olkiluoto in Finland, the second at Flammanville in France. The Olkiluoto project is well behind schedule and \$3bn over budget thus far, on a project that was supposed to cost €3bn. The end customer, a Finnish electricity company, has taken Areva to court for breach of contract. The Flammanville project is faring little better. Workers at the plant were moved to round-the-clock shifts in November, and insiders say

the plant is six months behind schedule. The step-up in shifts will mean more costs on a €4bn budget for a plant start date scheduled in 2012, a target now most unlikely to be met.

As though this weren't pressure enough, in the first week of November nuclear safety authorities from France, Finland and the UK joined together to ask Areva to modify its reactor design. Reading of this development, it struck me that a fiction writer would find it hard to invent credibly the real-life travails of the nuclear industry. The regulators have concerns over the degree of interactivity between the control and safety systems, which should be completely independent and aren't. Think of a car in which, should the steering fail, there is a risk the brakes will fail at the same time. Ominously, in this regard the German engineering giant Siemens recently decided to quit its partnership with Areva.

MEANWHILE, IN THE UK – WHERE THE PRIME MINISTER'S BROTHER IS HEAD OF PUBLIC

relations for EDF – the government pushed doggedly ahead with its nuclear expansion agenda. On 10 November, Labour announced plans to build ten to twelve new nuclear plants like those under construction in Finland and France, making 30% of UK electricity from nuclear power by the 2020s, up from 13%, where it is now. They will cost £5bn each, according to the government, and there will be no public subsidy. Believe that if you can.

Then, on 22 November the UK government announced that there had been five security incidents at British nuclear plants last year. Though these incidents are in the latest annual report of the Office of Civil Nuclear Security, the government has refused to disclose details on grounds that it is 'not in the interests of national security'.

On 24 November EDF announced that the nuclear industry would need to add at least £40 to each and every British electricity bill. This would be the price tag for a mechanism to support the cost of carbon, which the nuclear industry needs to be high, in order for its economics to have any chance of working. Even then it will need the taxpayer to write an additional large cheque, perhaps blank, for waste disposal and decommissioning.

On the same page as the story in the *Financial Times* describing this new addition to the proposed financial liabilities of the taxpayer, a photo showed demonstrators from the construction industry pushing helipad-sized 10p coins up Whitehall as part of the campaign to make the solar feed-in tariffs, starting in April next year, work. This tariff would add just a couple of pounds to bills, easily offsettable by utilities via energy-efficiency innovation, and would create a fast-growing industry much more job-rich than the nuclear industry. The nuclear headline and the solar picture perfectly captured the wider state of play on the British energy scene. Big and broken versus small and hopeful. Dirty defenders of the ruinous energy status quo versus people who dare to believe that things can be done another way, solving other social problems in the process. ■

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