# Nuclear winter?

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The UK's need for new power plants has prompted a slew of new development activity, but the generation market is on the verge of change. Whilst French state company EDF Group looks set to consolidate its presence in the UK nuclear market with the takeover of British Energy, the credit squeeze presents a difficult environment for smaller developers, since bankers must choose carefully which projects they take on.

Gas and renewables projects are the most likely to close project financings, bankers say, but the larger deals are unlikely to close until well into 2009. The coal sector may lose out, as a government-backed, and EDF-financed, nuclear fleet could soon eclipse such carbon-intensive technology.

Since Welsh Power closed a £475 million ($727 million) financing for its 850MW Severn Power gas-fired power plant deal in in the second quarter of 2008, markets have been transformed. The project was financed when construction costs were high, and the merchant deal will have to recoup these costs in a volatile wholesale power market, in which prices are currently well below those of the first half of 2008.

"That was the bank market pushing UK generation financing to the extreme limit for its day, and we are not going to see anything of that sort for a while," says one banker close to that project. The power sector had been expecting supply chain squeezes in the construction sector for several years, but those looking ahead now talk of prices coming down as recession kicks in and the books of construction companies slim down.

**Big is beautiful**

To get to close, projects are likely to need more equity than before the turmoil of September, and the uncertain climate will favour the developers with the bigger balance sheets. Irish utility ESB announced in November it had bought a stake in the 860MW gas-fired Carrington project, a move that may well be repeated for other projects being developed by the smaller players.

Due to competition issues in its home market, ESB is looking to expand in the UK. It already owns a 50% stake in the 840MW Marchwood gas plant project, along with utility Scottish and Southern, and the plant is expected online in 2009. ESB also owns 50% of the operational 350MW gas plant at Corby. ESB took a majority stake in Carrington developer Bridestones Power and is also looking to develop another gas project, bankers say.

The renewables sector is gaining momentum in the UK as the government puts more and more weight behind its environmental objectives, but as the green juggernaut rolls on, its passengers may change. The developers with limited balance sheets must persuade equity investors to inject development equity early.

Smaller developers, common in the wind sector, can only hang on to their projects for a limited time. If they do not find lenders at the right price, then larger player may come in on the equity side, including utilities like ESB, and private equity firms. Investment banks active in the UK power sector are swinging their attention back to larger developers, with which they have had a previous relationship.

"In many cases we have said no because either they are not [existing] clients...or we felt that the project was not far enough along," says one investment banker. Private equity cash is buying up development rights and the terms of the deals are tilted in favour of the buyer, he said. "In some cases there is no payback at all for the developer. He is just happy to get any equity recovery at all, even if it is $0.80 on the dollar. Otherwise it is a 100% write-off," he said.

**Coal or gas**

EDF expects to get European Commission approval in January for its takeover of British Energy and, with government backing, UK nuclear build now looks inevitable.

A new fleet of nuclear power plants would have a big impact on the competitiveness of gas and coal, but with clarity needed on the plethora of nuclear build risks, and several years of regulatory process still to wade through, the first new nuclear plant is not expected online until 2017, at the earliest.

Coal plants are unlikely to be project financed, at least in the short term, bankers say. Green pressure groups have caught the public eye in focusing much of their action upon the coal power sector-highlighted through high profile protests at the Kingsnorth plant site. This, combined with uncertainty over both the price of carbon and the government's regulatory plans for carbon capture storage, have made bankers wary.

Gas plants are being developed however, and although ConocoPhilips failed to close a project finance deal for its Immingham expansion, investors believe a handful of these gas projects will go through in 2009, if at a higher price than before the credit crunch. InterGen announced plans in November to expand its Spalding gas plant by 900MW, doubling the existing output.

Severn Power has a pipeline of projects, including at least one gas-fired plant, according to bankers, and there are also plans to extend the multi-utility-owned 1,000MW Barking gas fired plant by a further 470MW.

Conoco was looking to project finance a 450MW extension of its 730MW Immingham cogeneration combined-cycle gas-fired plant. The company expects to have the extended capacity, currently equity financed, operational in 2009. Bankers say it has now pulled its project deal, until market conditions improve. The original 730MW combined heat and power plant was also built on balance sheet, with a view to possible project financing at a later stage.

Illiquid debt markets were the main reason the deal was not closed, and the fact that the offtake was merchant also put investors off, says Allan Baker, global head of power in SG's energy project finance group. "When [potential] shareholders that needed leverage looked at putting bids in for it, they had to factor in a relatively high level of equity to compensate for the lack of debt, which then affected their return. They couldn't lend each other much. This made bidding for it very difficult," he said.

**The nuclear kid on the block**

EDF said on 2 December it had submitted concessions to the European commission to appease concerns over market competition in connection with the British Energy purchase. EDF, through its subsidiary EDF Energy, is the UK's fifth-largest power company. If its takeover of British Energy goes through, it would own all of the UK's nuclear generation assets, as well as prime land sites where new nuclear plant could be built.

Welsh Power, for one, wants EDF to sell off some of its generation assets, in return of its prime position for nuclear expansion. "Promises to build new nuclear plant should not secure anyone the right to be a dominant player in any market, and EDF must be forced into significant plant divestment in exchange for these investment opportunities," CEO Alex Lambie said 8 October. Still, Welsh Power, recognising that valuations are currently tempting, has hired Lexicon Partners to look for potential buyers for its business.

Project developers and investors are now wary of how a nuclear fleet could crowd out the newbuild market, and make grid connection permits harder to come by. National Grid will have to schedule in the connection of new nuclear output, as well as a massive expansion in wind output.

There is a huge interest in any new nuclear build in the UK, and investors were given a new set of figures to digest on 4

December, at an investors' day held by EDF in London. EDF's UK nuclear hopes hang on its third-generation European pressurised reactor reactor design, and the company has said it wants to build a fleet of four plants. The first model of this type is being built at Flamanville, France, near the Channel.

EDF told investors that its plant at Flamanville, well into construction, would cost 20% more to build than previously thought. At 2008 prices, Flamanville will cost Eu4 billion ($5.46 billion), compared with Eu3.3 billion in its 2006 estimates, the utility said. Higher raw materials costs and higher regulatory costs were to blame, it said.

EDF has also had to throw more personnel at the project to steer round unforeseen construction problems, but said it is determined to hit its start date of 2012. The company is now saying late 2012 is more likely, and it has adjusted its estimates for UK costs.

EDF said power production costs of building for UK plants would work out at £45 per MWh of production. EDF said that a squeeze in the nuclear equipment market, and costs incurred from the regulatory Generic Licensing Process, had pushed up previous estimates by around £3 per MWh.

It is expected that EDF will corporate finance the construction of new nuclear, and whilst a refinancing on a project basis is always on the cards at a later stage, there are many regulatory risks which must be ironed out by the government before external lenders get on board.

Concerns over regulatory changes are not limited to nuclear, either. In an already jittery investment environment, the threat of UK government intervention into power markets poses more questions for bankers.

Ed Miliband, the UK's Secretary of State for energy and climate change, said in a speech on 9 December that the UK needs "both dynamic markets and a strategic role for government." He said: "National Grid is responsible for balancing supply and demand on the network in the short term, but in the end it is for government to shape the right medium-term framework so the market delivers."

The government "must intervene to introduce a carbon price and to overcome market failures which would otherwise mean that low-carbon technologies would not be adopted," Milliband said. The comments aroused howls of protest from utility executives

Governments face a decision about whether to allow end-user prices to rise to cover the higher cost of capital in the power sector. It must also make sure there are enough power plants brought online, with new entrants competing with some of Europe's largest companies like EDF, E.ON and RWE, already well established in the UK.

"Uncertainty over policy issues could feed a vicious circle, with the perceived increase in the political risk associated with IPP projects further driving up the cost of capital," says Alistair Green, senior energy consultant at CapGemini. Developers and investors will want assurance that future plant projects will not gain an advantage from UK policy change. "In this environment I would expect that newbuild stations will seek some form of government assurance, or guarantee, with regard to future policy risks," he said.

**Corporate appetite is strong**

Whilst project finance deals are few and far between, there are still large transactions being closed in the corporate world. In a bid to buy 25% of an EDF-controlled British Energy, Centrica has secured Eu1.5 billion of debt, Eu750 million of which comes through a bond issue, with a further £750 million tranches of £300 million and £450 million, according to one banking source.

Centrica also said on 15 December that it has received acceptances for 91.3% of its fully underwritten new share offering, to the value of £2.0 billion ($3 billion), which would also go towards funding the British Energy deal.

Centrica is also looking at financing some renewables assets off-balance sheet. But one project finance banker says his firm is now looking at power generation investments on a more corporate basis, for example investing in a joint portfolio of gas and wind projects. "There's going to be a corporate approach which will be getting a lot of our attention over the next 12 months, as opposed to asset by asset," he says.

As investment banks review their assets in the light of a difficult quarter, bankers say it is as yet unclear where their resources will be concentrated going into 2009.

One banker said his employer had brought corporate, mergers and acquisitions, and project finance teams together. "The M & A business has changed, and the project finance business as I know it has changed...we have to start thinking slightly differently," he said: "It all comes home to roost on one bank's balance sheet."