



Supporters of Nuclear Energy

Newsletter

No 211

April 2016

A FARCE WORTHY OF FEYDEAU

Politicians at daggers drawn. A furious French President banging heads together. A major nuclear power station building project thrown into doubt. A “flamboyant” executive in denial, insisting that all will come right in the end.. Rebellious workers warning their bosses that they could face expensive law suits. This has all the appearance of a plot devised by Georges Feydeau, the French playwright famous for his farces. In fact it describes, with little embellishment, the latest stage in the Hinkley Point C saga.

Earlier this month we were led to believe that an investment decision would definitely be announced by EDF next month. Within days it was announced that it would actually be September before anything happened. I was immediately reminded of the Frank Sinatra song: “It is a long, long while from May to December. But the days grow short when you reach September.” Do we really have time for the waiting game?

Just how this tortuous tale will be resolved remains to be seen. I suspect that there will be a few more twists and turns before there is a denouement. Meanwhile, the audience can expect a few more surprises, an audience which includes the UK Government ministers who are anxiously waiting in the wings to see if Hinkley will be approved by the French.

In true farcical fashion the action gets faster and more furious as the final curtain approaches so I have to be cautious. The SONE Newsletter appears only once a month and it would be easy to get caught out by an unravelling plot, as others already have been. It does seem, however, that there is a glimmer of limelight illuminating the Hinkley Point stage. EDF has agreed “a significant recapitalisation,” with the French State putting in €3 billion as part of a €4 billion rights issue which should pave the way for the construction of Hinkley Point C - if, that is, such a step is still considered worthwhile.

The principal players in the Hinkley Point farce are Emmanuel Macron, the French economy minister, and Segolene Royal, the energy minister (the politicians at daggers drawn); Francois Hollande (the furious French President

of course) and Vincent de Rivaz, EDF Energy's Chief Executive (the flamboyant executive) The supporting cast includes an assortment of EDF managers and trade unionists (the rebellious workers).

M. Macron spent much of the earlier part of the month insisting that the French Government was "completely committed" to constructing the Hinkley Point C nuclear power plant. "We back the Hinkley Point project," he said on British television. "It's very important for the nuclear sector and for EDF. Now we have to finalise the work and especially the technical and industrial work very closely with EDF and with the British Government. to be in a situation to sign in the coming week or month."

Asked whether the deal would definitely go ahead, M. Macron said: "That's my view and that's our perspective, because I believe it's very important for our commitment to nuclear energy."

WORKING FROM A DIFFERENT SCRIPT

While M. Macron was promising an early decision, possibly as early as 11th May, Segolene Royal was reading from a different script, contradicting everything M. Macron had said. In a French radio interview she was asked whether the £18 billion Hinkley Point C project would be postponed. "It is still under discussion," she said. "There's an agreement between France and Britain so things should go ahead, but the trade unions are right to ask for the stakes to be re-examined."

Asked if she was therefore in favour of a postponement France's energy minister ducked the question and said that she would "not make rash comments." Nevertheless, she effectively kept the argument for delay very much alive. While she did not want to "decisively throw the project into question just like that" she said that there should be "further proof" that the Hinkley venture was "well founded" and would not affect investment in renewable energy. That would never do, of course.

Faced with these contradictory statements President Hollande took the two protagonists away to the Elysee Palace to thrash things out, accompanied by other French government ministers. A few days later, after President Hollande had presumably banged their heads together, it became clear that Mme Royal, who wanted more time to consult the trade unions, had won the argument.

M. Macron was forced to fall on his sword and announce that following the State bail-out EDF would now embark on a 60-day consultation with trade unions hostile to the project. That could mean that a final investment decision would not emerge before September, he said.

Another person caught out by a rapidly changing scene in recent weeks was Vincent de Rivaz, chief executive of EDF Energy, the UK arm of EDF. When he appeared before the Commons Select Committee on Energy and Climate Change Mr. de Rivaz put on a bravura performance. Frankly, I found the dialogue between him and members of the select committee astonishing — and I say that as someone who is in favour of the Hinkley Point C scheme going ahead. Opponents will have found the scene hilarious.

THE CHAIRMAN'S HEART SANK

Mr. de Rivaz began by stating “clearly and categorically” that Hinkley Point C would go ahead. No ifs or buts. “It will go ahead,” he said, “because EDF has the experience, the supply chain ready and the team ready, including the company’s long-standing partners CGN (China General Nuclear) to build Hinkley Point C and on time and on budget.”

The history of delays and rising cost projections at Hinkley and at similar projects employing the EPR reactor at Flamanville in France and Oikiluoto in Finland are as nothing it would seem from that statement.

So what about some of my other concerns, the growing technical doubts, the question mark over the true strength of the political resolve in France? “We are confident in this project,” Mr. de Rivaz said. “We are confident in the EPR technology and evolution to achieve higher standards of safety, of the well-established and reliable PWR technology. It will go ahead because we have the strong support of the UK Government and of the French Government. It will go ahead because we are confident regarding the financing of the project.”

This was all too much for the SNP Chairman of the Select Committee, Angus MacNeil MP. “You started with a quite flamboyant opening statement there,” he told Mr. de Rivaz. “You said you were confident in the project itself and then said you were confident in EPR and my heart sank. I thought about Flamanville in France, which was due to be opened in 2020. Was EDF also confident in that at this stage of its development?”

Answer came there none. So the select committee chairman decided to put more pressure on, letting it be known that Mr. de Rivaz would be summoned to reappear before the select committee on the House of Commons stage if EDF did not make an investment announcement by May as promised. Mr. de Rivaz may have already received his invitation.

“All we see from EDF is them kicking the can down the road,” Mr. MacNeil said. “According to some of the experts, by the 2030s between storage and renewables there will be no need for nuclear anyway, so if EDF kick the can far enough down the road they will have maybe served a purpose.” Mr. MacNeil

went on to say that he personally doubted whether Hinkley would ever get built. “It’s always two-to-six months,” he said. “It’s jam tomorrow with EDF.”

A spokesman for the Department of Energy and Climate Change begged to differ. “The final investment decision is a matter for EDF. However, the British Government and EDF are both clear that Hinkley will go ahead.”

FLAMANVILLE’S CONTINUING PROBLEMS

Mr. MacNeil’s reference to Flamanville’s troubled progress was well timed, coming as it did as the French Nuclear Safety Authority issued a warning that EDF’s new nuclear power station in Normandy faces years of further delays if tests confirm that the steel used in its EPR reactor is flawed.

The flagship plant has already been subject to years of delays and cost overruns, adding to EDF’s difficulties in funding the identically designed £18 billion reactor at Hinkley Point. Initially, Flamanville was expected to cost €3.3 billion and start operations in 2012. It is now planned to start up in 2018 at a cost of €10.5 billion. Incidentally, Hinkley was originally planned for 2017 but is now set to be built by 2025.

It seems that completing a project “on time” depends on when you start the clock ticking and the definition of costs can be somewhat flexible, too..

The warning about potential additional delays at Flamanville came from Julien Collet, the deputy director of France’s Nuclear Safety Authority. Whether these delays materialise will depend on the results of tests started this year and due to end this summer on the steel being used in the reactor core. If the steel fails the tests regulators could order EDF to remove and replace the top and bottom of the reactor vessel. Building new components would take years.

The difficulties EDF is having with the steel at Flamanville have been caused by problems with the process of cooling and cutting a 450-tonne ingot of steel, which created a small area which was slightly more brittle than it should have been. Areva, the French nuclear company in whose reactor business EDF is taking a controlling stake, is working with regulators to test an identical piece of steel to determine if it could lead to weakness in the reactor vessel. The problem was discovered in late 2014 but EDF opted to push ahead with construction at Flamanville, potentially making it more difficult to replace the faulty steel if that was shown to be necessary.

Shortly after M. Collet’s warning Areva and EDF announced that their programme for testing the mechanical properties of Flamanville 3’s EPR reactor pressure vessel would be extended. Previously the tests were to be carried out on samples from two forged parts but now they will be conducted

on three. The testing programme will run until the end of this year. There is obviously the possibility of further delay.

A RAFT OF CHANGES

M. Hollande's decision to have an interval during the performance of the Hinkley Point farce should come as no surprise, although it would have been better if it had been taken earlier. The majority of the trade unions represented within EDF have long been known to want the project postponed, possibly scrapped, and all six union members on the EDF Board are expected to vote against the project when it finally comes to a vote. They have already called for at least a two year pause with the project and, most worryingly, recommended that there should be a redesign of the EPR reactor technology.

Christian Taxil, one of the employee directors, argues that a raft of changes to the Hinkley scheme which have been agreed over the past three years has significantly raised the risk for EDF, while a promise to commission the plant within three years of concrete being poured was "not credible."

M. Taxil is the first EDF board member to go public with his concerns, although Thomas Piquemal, the company's chief finance officer, had already resigned because of his doubts about the course being taken by EDF.

M. Piquemal made it clear that he felt that plans to make the final investment decision now would put the financial future of the whole EDF Group in jeopardy. He wanted EDF to wait another three years before making the decision, by which time the group's financial position and the technical problems surrounding the EPR reactor might have been sorted out.

Engineers and managers employed by EDF are at sixes and sevens over what should be done during all this turmoil, adding to the sense of chaos and disarray essential in a well constructed farce. The good news is that more than a hundred engineers signed a letter supporting Hinkley, claiming that the company "can build and deliver the two Hinkley Point reactors on time." The bad news is that five times as many employees in management positions in the company did the opposite, calling for a halt to the project.

DEFICIENCIES AND INCOMPETENCE

The Financial Times reported that the managers had sent a letter dated 19th April to EDF's Board of Directors warning them that they could all face legal action if the company pushed ahead with the project. They maintained that if a decision in favour of Hinkley led to the "destruction of the value" of the EDF group its directors could be held personally responsible.

The letter apparently recommended that the Board should commission a series of extra studies into the Hinkley scheme and then convene a special shareholder meeting to thrash things out. Board members should also talk to the French market regulator and lawyers, the managers said. They were also highly critical of their counterparts at Areva, the fellow State-owned reactor supplier which was responsible for the EPR design.

Time was needed to overcome deficiencies in the EPR design and to sort out the “very low competency” within Areva, the engineers insisted. EDF’s fraught relationship with Areva is one of the reasons for the serious divisions over what should be done about Hinkley within the French nuclear industry. EDF, 85% State owned, is being compelled to invest tens of billions of euros to bail out Areva, the partner it was “persuaded” to take by the French Government. At the same time it is having to upgrade France’s huge nuclear power fleet, while labouring under its own considerable debts.

The status of the engineers’ letter is shrouded in mystery. The FT provided EDF with a summary of its contents but the company said that as the letter was an anonymous document which it had not seen it could not comment on it.

One of the of the people involved in the drafting of the letter retorted that the only reason the letter was sent anonymously was that the managers feared for their jobs if they publicly warned about the risks of the Hinkley Point C project. The same person said that 500 EDF employees in management positions supported the case made in the letter, including some divisional heads. Most of these people were also small shareholders in EDF, he said.

EDF shrugged off the views of its employees, saying that it was well known that the unions, who have six out of the 18 places on the Board, are opposed to Hinkley while the criticism from the engineers was contained in a paper that was not taken to the Board.

UNFOUNDED RUMOURS AND FANTASIES

“The date for the first operation of Hinkley Point C has not changed. It will be 2025,” the company said. Later it complained about “unfounded rumours and fantasy information” in the media. Blaming the media for its problems is usually a sign that a company is floundering, looking for someone else to blame for its misfortunes and mistakes, a classic farce stance.

M. Hollande himself is said to still want the Hinkley scheme to go ahead. If it does it will come as a great relief to Amber Rudd, the UK’s secretary of state for energy and climate change, one of the more involved members of the audience for the comings and goings on the French nuclear stage.

It is not so long ago that the UK Government was being criticised for giving EDF an easy ride by granting what was seen as a highly favourable strike price for the electricity from Hinkley Point and later agreeing to new provisions that include a liability for losses should Hinkley be shut down by either a future Government or international regulators any time during the next 35 years.

Mrs. Rudd has admitted that any delay in Hinkley Point C would inevitably lead to higher electricity prices and make it more difficult for the Government to hit its environmental targets, one of the main reasons why the Government supported Hinkley Point C in the first place.

Appearing at the same Energy and Climate Change Select Committee session as the “flamboyant” Mr. de Rivas were Tom Sansom chief executive officer of NuGeneration (NuGen), which plans to build three Westinghouse AP1000 pressurised water reactors (PWR) at Moorside in West Cumbria, and Alan Raymant, chief operating officer of Horizon Nuclear Power, which intends to deploy th UK Advanced Boiling Water Reactor (ABWR) at two sites, Wylfa Newydd, on the isle of Anglesey, and Oldbury-on-Severn in South Gloucestershire.

HINKLEY ISN'T THE ONLY SHOW IN TOWN

Both men were at pains to point out to the MPs that there are other nuclear energy projects, not just Hinkley. They also took the opportunity to remind MPs that their new build schemes were based on tried, tested and operating reactors. (Unlike the EPRs destined for Hinkley, of course).

Mr. Sansom said the UK’s nuclear new build industry is “larger than just Hinkley” and that NuGen, a 60%/40% joint venture between Toshiba and GDF Suez, understood the need for the UK to bring on-line 18 GWe of new capacity in the mid-2020s which, coincidentally, is around the time EDF is now saying Hinkley should be operating.

Rather pointedly, I thought, Mr. Sansom told MPs: “We have a deliverable technology, a fleet of AP1000s currently being built in China and the US and in fact NuGen will have the 17th, 18th and 19th AP1000s to be delivered.

“We have a single consortium approach to deliver the project in Cumbria and we believe we have the right technology and the right team and the right location to bring this online.”

After the Select committee meeting Mr. Sansom said that it was no secret that financing internationally significant projects, which had huge up-front costs, was a major challenge. It was complicated, but not impossible.

“The Contracts for Difference regime and access to UK Government loan guarantees are vital features of UK policy that supports towards new nuclear

in attracting investors,” he said. “This in turn will result in developers building new nuclear power stations for the first time with a combination of both debt and equity. We are working closely with Government to take Moorside forward. It will be Europe’s largest new nuclear power station.”

TRIED AND TESTED TECHNOLOGY

Mr. Raymant told the Select Committee that Horizon was not dependent on the progress of Hinkley Point C and was bringing its own “tried and tested technology” to the two projects it is progressing at Wylfa Newydd and Oldbury-on-Severn.

“Hitachi has made a huge investment in the project already,” he said “but Horizon will be looking for the widest pool of investors to support the project. Our target is to get to a final investment decision in early 2019.”

It is not only the UK which needs to press on with its nuclear new build programme. According to the European Commission investment of between €350 billion and €450 billion will be needed over the next 35 years simply to maintain the European Union’s nuclear generating capacity at between 95 and 105 GWe.

The commission noted that since its previous Nuclear Illustrative Programme (PIN) in 2007 “the EU nuclear landscape has undergone significant changes with the comprehensive risk and safety assessments (stress tests) of EU power reactors after the Fukushima Daiichi accident and the adoption of landmark legislation on nuclear safety, radioactive waste and used fuel management and radiation protection.”

According to the Commission there are currently 129 nuclear power reactors in operation in the EU, with a combined generating capacity of 120 GWe. Together they provide 27% of the bloc’s electricity. However, it forecasts that there will be a decline in EU nuclear capacity up to 2025, due to ageing reactors being retired and some member states ending or reducing their reliance on nuclear energy. With new reactors starting up and lifetime extensions of existing reactors this trend is expected to be reversed by 2030.

One thing is for certain. We do not need any more Feydeau-like alarms and excursions if the new build challenge is to be met.

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