EDF's real problem is Flamanville not Hinkley Point

The cloud of doubt around EDF's long-planned new nuclear plant at Hinkley Point in Somerset continues to grow.

The final investment decision has been delayed yet again. The start up date has been put back to 2026 - nine years behind the original schedule. A new contingency, amounting to £2.7bn, has been added to the cost of the project.

Now, in a remarkably frank interview the French energy minister, Segolene Royal has said that <u>the company may have been "carried away" by its enthusiasm</u> for the project and has joined the chorus of internal staff and engineers in warning of the risks to EDF's finances from going ahead. But although Hinkley inevitably gets all the attention in the British press, EDF's real problem is to be found in the half constructed plant at Flamanville on the Cotentin Peninsula on the other side of the English Channel.

The prototype development of the European Pressurised Reactor (EPR) at<u>Flamanville</u> began in 2007 and should have been operational by the end of 2012. In 2009, EDF in the UK told the British government that the experience of building Flamanville would be invaluable in reducing costs at Hinkley. It has not quite turned out that way. The Flamanville project is six years behind schedule and € 7bn over budget. The most recent problem has been the identification of <u>weakness in the steel which makes up</u> <u>the reactor vessel</u>. That weakness is now being investigated by the French regulatory authorities and it was quietly announced a few weeks ago that those <u>tests were being</u> <u>extended</u> by the French nuclear regulator the Autorite de Surete Nucleaire on the advice of its permanent group of experts.

The scale of the risks to EDF if those tests identify a serious problem is hard to exaggerate. Building work has continued around the reactor core despite the uncertainties. If the concerns prove to be serious the whole structure at Flamanville will have to be dismantled and work will have to start again. The costs would be overwhelming and would be compounded by the inevitable loss of confidence in all the other prospective EPR projects. That includes Hinkley but also extends to EDF's aspirations in the Middle East and its ambitions in China. Two new plants under construction at Taishan are using the same reactor vessels. One can only imagine the reaction of the Chinese to the news.

If anything the situation in France is even more serious. France gets 75 per cent of its electricity from nuclear power but the existing stations are ageing and need renewal over the next two decades. EDF's hope had been to use the EPR technology to build a set of large scale reactors to supply France through the remainder of the 21st century. If the EPR reactors can't be made to work the identification and subsequent approval process for a replacement will take time and will open the door to alternative sources of energy supply including gas and renewables. The status of France as one of the world's leading civil nuclear powers would be undermined.

The state of the reactor vessel is just the latest in a long series of difficulties encountered during the construction process at Flamanville. The doubts now being expressed about further investments in EPR projects such as Hinkley by the company's own engineers and trades unions are not based on any ideological opposition to nuclear power – quite the reverse. Their concern is that the company, which is hardly in great financial shape after the forced merger with Areva, is taking a vast financial risk in proceeding with another EPR

reactor project when the first such project is in deep trouble. They and Ms Royal are right to be worried. The company could hardly go out of existence – someone has to supply power to French consumers and businesses – but it might have to be broken up with a separate entity created to manage down the liabilities of its bad assets.

In these circumstances it would be impossible to refinance the company by selling stakes to Chinese or Gulf investors. The Chinese government in particular may well feel it has not been told the whole truth. That would leave EDF completely reliant on funding from the already hard pressed French state. What is clear is that if the news from Flamanville is bad EDF will not be investing billions of euros in Hinkley Point anytime soon.

To its credit the UK government is preparing a plan B, while continuing to claim that Hinkley will still go ahead. Mr Osborne wanted Hinkley but he is the ultimate realist. The gap in power supplies in the mid 20s is a challenge but it can be dealt with pragmatically. The lights will not go out.

The real problem for EDF is the corrosive loss of confidence in its technical capability. For the sake of its minority shareholders, who have seen their shares fall in value by almost two thirds over the last three years, as well as its prospective customers around the world EDF should now publish in full all the studies which have been undertaken on what has gone wrong at Flamanville.

A totally independent review is now essential. I assume that both the UK's nuclear regulators, the NII, and <u>Stephen Heidari-Robinson</u> the Prime Minister's powerful new policy adviser on energy issues have asked for all the relevant documents. But it is not clear if they, or indeed French ministers, have been given everything. Or even for that matter the leadership of EDF in the UK including the expensive team of project managers assembled to build Hinkley. The French trades unions and the engineering specialists with their deep roots in the company probably know more than anyone else. EDF should publish everything. Reputations can only be built through openness and transparency. If they won't publish, we have to assume that they have something to hide.