Nuclear Power and Deregulated Electricity Markets: Lessons from British Energy

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Simon Taylor

When the privatised nuclear power company British Energy ran into financial crisis in 2002 and had to be rescued by the government, it appeared to show that nuclear power could not survive in a deregulated electricity market like that of the UK. This paper argues that is a false conclusion. The company’s crisis was caused by a fall in power prices but its vulnerability to that collapse arose from mistakes in financial and corporate strategy that could have been avoided and were not inherent in the fact that it was a nuclear generator.

British Energy had several problems that were a result of British government policy choices taken years before. The main ones were; i) a unique British design of nuclear power station that was unreliable; and ii) a requirement to reprocess the nuclear waste at high and inflexible cost which made the company’s profits even more sensitive to changes in power prices.

The immediate cause of the company’s financial crisis was the collapse of wholesale power prices in the period 2000-2002. But the company could have withstood a period of very low prices if it had not paid out excessive amounts of cash to shareholders, leaving its balance sheet too weak. These payouts were required by shareholders, who mistakenly viewed the company as a relatively safe utility, when in fact it was an intrinsically risky commodity manufacturing company.

British Energy also made errors in corporate strategy. It failed to integrate vertically by buying retail supply businesses that would have reduced its exposure to volatile wholesale prices. And it diversified its generation by buying a coal station at a very high price.

The paper concludes that these errors, together with its inheritance of unreliable power stations and expensive reprocessing obligations, explain why it got into trouble and shareholders lost most of their investment. It argues that the risks of nuclear power operating in a deregulated
power market are not conceptually different from those of other industries that operate successfully with private ownership, such as steel and bulk chemicals. The crisis at British Energy is therefore not evidence that nuclear power cannot survive in a deregulated power market and in particular tells us nothing about the economic viability of new nuclear build in the UK.