

# Go nuclear, but keep your hand on your wallet

The government claims that the private sector will meet the costs of new nuclear plants, says **Irwin Stelzer**. But there is every risk that the public will end up footing the bill

**J**ohn Hutton, the energetic Secretary of State for Business and a few other things, has reason to be pleased with the expressions of 'significant interest' in constructing new nuclear power plants that he has received from British Energy, EDF Energy, E.ON UK and Iberdrola — the British, French, German and Spanish utilities — respectively. These are among the handful of companies in the world with the knowhow and financial resources to build and then successfully operate these capital-intensive and complicated plants.

The government's case for the need for new nuclear plants is straightforward. The nation's ten existing plants will be shut down by 2023, reducing this low-carbon source of energy from 19 per cent of the nation's total to 6 per cent. The government is hoping that the first of the plants to replace the existing fleet will come on line in 2017, or 2018 at the latest. If Britain is to avoid excessive reliance on natural gas from places that are not completely reliable trading partners, and if it is to meet its wildly optimistic plans to reduce carbon emissions, it will have to hold to some such timetable.

So far, so good. But this ignores the billion-dollar question: will the private sector provide the capital to finance this replacement-and-then-some of the nation's nuclear plants? The government is confident that it will, and at no cost to the taxpayer.

The first step will be to clear away the regulatory hurdles to new construction. The government has sworn to do this, but experience with wind farms suggests that there is a wide gap between legislation and practice. It generally takes about two and a half years to do the research and paperwork to prepare an application for permission to build a wind farm. From that point, the law provides that the period between planning application and approval shall be no longer than 16 weeks. That target is missed on 95 per cent of all projects; on average, it takes about three years to get a decision. If the application is denied, and an appeal for an inquiry filed, add an additional 18 months until a final decision — up or down — is reached. And wind farms, despite local opposition, are far less likely to attract the sort of well-funded, sophisticated opposition that nuclear plants will: there is a large international pool of expert opponents ready and willing to fight every new plant.

Assuming that the permitting process can be expedited, there is then the small matter of whether these massive, capital-intensive stations will be economic, without government subsidies. Reasons for optimism include the rising cost of fossil fuels, with which nuclear must compete; the inability of renewable resources to do more than make a marginal contribution to future electricity supplies and the reduction of carbon emissions; the proven ability of US firms such as Exelon to operate nuclear plants at 94.5 per cent of capacity, a doubling of efficiency in the past decade; and the likely increase in the cost of carbon permits, which must be included in the cost of electricity produced from coal.

But if we know anything about nuclear power plants, it is that their cost always exceeds estimates. Perhaps the situation is no longer as bad as it was a few decades ago, when the predicted cost of one plant in the New York area was put at \$700 million, and the final cost at completion came to over \$5 billion. But we can't be certain, since current estimates of the cost of these energy behemoths vary widely. Some American companies say they can bring a plant on line for \$5 billion; others put the figure at twice that. The optimists might be right, but investors being asked to part with billions of capital must factor the risk that the low estimates are wrong into the price they will want for their money. As they watch the price of uranium rise, the cost of building materials escalate, and observe the rising wages of the scarce personnel who know how to build these plants, they will worry even more. Which is why John Hutton is hedging his bets by approving the construction of new coal plants.

And why the government has left open the possibility of subsidising nuclear power. On the surface its disclaimers are absolute — rather like its pledge to hold a referen-

dum on the EU treaty/constitution. But it has left itself several escape hatches. First, there is the government's indication that it will establish 'a level fiscal playing field between nuclear power and other forms of electricity generation'. Just what that means is hard to say, but it certainly leaves the government room to take such steps as it deems appropriate to bring the costs of nuclear and non-nuclear power in line with one another, should nuclear prove too expensive to compete in the deregulated energy market.

The government has also announced that it is willing to adopt 'further measures' to make low-carbon energy, which mostly means nuclear power, competitive with coal and gas-fired electricity generation. This might include such sensible steps as taxing carbon, or market-distorting measures of a sort that must already be circulating in the Treasury.

Finally, in what the government calls 'extreme circumstances', it is prepared to help meet the massive decommissioning and waste disposal costs — knowing full well that such extreme circumstances almost always attend decommissioning and waste disposal. Disposal sites are delayed, decommissioning costs are driven up by unforeseen events — that sort of thing.

Most important, the government has a rather simple way of passing any untoward costs of nuclear energy on to the public without breaking its promise not to use taxpayer funds to foot the bill. It can require existing distribution companies to include a mandated portion of nuclear energy in the mix of sources on which they rely. That will drive up consumers' bills, but leave the Treasury free once again to use its Macavity defence — prices are up, but taxes aren't, so don't blame us.

None of this is to say that it is not in the national interest to encourage the replacement of existing nuclear plants, and the enlargement of the fleet. That depends on what you believe to be the social value of replacing carbon-emitting but lower-cost coal plants, and natural gas plants supplied by volatile regimes, with nuclear power. And how much you worry about terrorists gaining access to nuclear materials.

Meanwhile, investors will have noticed that Britain's once one-off windfall profits tax, laid on utilities by the incoming Labour government, has again made its appearance, either directly or as an order to utilities to subsidise the bills of consumers afflicted with 'fuel poverty'. It would not be completely unreasonable for investors to wonder whether such a retroactive assault on the profits they might earn from what is a risky investment — more than one American nuclear utility has gone bankrupt or close to it, in part because regulators have changed the rules after a plant was built — is in their futures.

*Irwin Stelzer is director of economic policy studies at the Hudson Institute and a columnist for the Sunday Times.*