

UK Energy Review: A policy made by big business

Part 2

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This is the conclusion of a two-part series examining the Blair government's review of UK energy policy. Part one was published on September 4.

The British government's Energy Review, which recommends building a generation of new nuclear plants, is based around the proposition that it is the role of the "market" to decide how to generate energy. In December 2004, then Energy Minister Mike O'Brien stated the government was "waiting for the market to come forward. We want to see how the private sector would do it. But at the moment, business people are coming up with gas and coal."

Within a month new European Union legislation on carbon emissions decisively shifted the energy market in favour of the nuclear industry. The carbon emissions trading scheme legislation introduced in January 2005 penalises fuel suppliers who emit carbon. Under these laws the nuclear power stations, which do not directly emit carbon, retain a huge financial advantage in the energy sector as fossil-fuel generators are forced to buy carbon certificates from them to comply with the scheme.

As O'Brien said of the trading scheme, "The economies of generation will change in the coming decade. The new gold will be certificates. They will be worth a lot of money."

With the Energy Review the government has been even more explicit in assigning the market the central role in all aspects of energy production and supply.

Speaking at the Institute of Directors Energy Conference on July 13, Malcolm Wicks, minister of state for energy, said, "We are entirely clear that in terms of new build it will be for the private sector to propose, develop, construct and operate any new nuclear power stations. It is the government's role to ensure that there are no barriers to the market being able to take these decisions."

Information which has since emerged reveals that the nuclear industry big players were insistent that they be allowed to take full control of the development of any new nuclear plant build. The question of government making any of the key decisions in this complex question was ruled out.

French firm Areva is involved in producing nuclear fuel for electric power generation. Referring to the contents of the Energy Review, its UK representative Robert Davies commented gleefully, "I'm pleased with everything I've read. In our submission to the DTI [Department of Trade and Industry] we stated like a mantra that international nuclear is economical without government subsidies. The government has now categorically stated that it is up to the market to decide. It's a positive green light."

Citing the UK's increasing dependence on gas and oil imports, the Energy Review calls for "a strong international agenda to promote more open and competitive markets" and "a market framework in the UK that is positive for investment and diversity of supplies and for the growth of

our own home-grown energy."

The summary also calls for the energy markets to be further liberalised throughout Europe, as only "Competitive markets can help us achieve diversity, as companies themselves seek diversity in order to manage risks." It adds, "The large investment needed in new electricity generation will be a big test for our market-based system."

Under this "market framework" the nuclear industry companies are seeking to reduce their costs to a minimum by demanding that the government, which prefers to build new nuclear plant on existing sites, sells these sites at a price favourable to them.

Paul Golby, chief executive of E.ON UK, warned, "I don't want to be held to ransom. We will pay an economic price (for the sites) but no more.... There should be a level playing field."

The media has also largely accepted this framework. *Guardian* columnist and a prominent supporter of the Blair government, Polly Toynbee, commented on May 19 on "the great value of private markets." Only these were capable of estimating how much it would cost to build 10 or 20 new power stations, she continued, and they could do so "far better than any government department."

In her haste to praise private corporations as the saviours of society, Toynbee employed the example of the government's much criticised Private Finance Initiative and Public Private Partnerships as proof that private industry is the way forward. Both PFI and PPP have been the favoured means by which the government has sought to introduce private capital into the public sector, i.e., as a form of privatisation via the backdoor.

"As, alas, proved over and over in PFI and PPP contracts, private investors propelled by Adam Smith's hidden hand of profit will always trump state planners in striking the best deal for themselves. So leave it to them to decide if nuclear, with the full cost of all its risks, really is a cheaper option than offshore wind, tidal and wave power or coal-fired stations with carbon sequestration."

Prime Minister Tony Blair's administration is only the latest to push ahead with new nuclear plants. In 2005, there were 441 commercial nuclear generating units throughout the world. According to the World Nuclear Association, 16 countries have proposals to build 107 new civil reactors. The majority of these are in Asia. Of 27 nuclear stations now under construction worldwide, 16 are in China, India, Japan and South Korea. India is considering building more than 20 plants in the next 15 years and China at least 40. South Africa plans to build 24 reactors.

When one considers that no new nuclear station has been ordered in the US for 25 years, and only one European reactor (in Finland) is under construction, such a programme of nuclear build is unprecedented in modern times.

As stated earlier, the government's Energy Review has been deeply

controversial. The concerns expressed have again brought into sharp focus the unresolved question of the safety of nuclear power production and the removal of its highly radioactive waste product.

Despite its commitment to the development of a new generation of plants the Energy Review resolutely fails to address, in any serious way, the disposal of the 60-year legacy of extraordinarily toxic waste, let alone that which is to accumulate in the future.

Since the 1940s the UK nuclear power project has built up 102 tonnes of plutonium, 153,000 tonnes of uranium, 10,000 cubic metres of spent fuel, 2,000 cubic metres of high-level waste and 350,000 cubic metres of intermediate-level waste. Plutonium is highly toxic and just one particle of it can cause fatal lung-cancer. It takes 24,000 years for a given amount of plutonium to decay by half and to this day no safe way has yet been devised to dispose of it.

It is estimated that in order to bury just the plutonium produced in an underground repository with any degree of safety would take 30 to 40 years to complete.

The nuclear industry has consistently sought to abdicate any responsibility for the safe disposal of waste. A report published on August 16 by the House of Commons Trade and Industry Committee warned that the final cost to the taxpayer for decommissioning would rise to well above £70 billion. It pointed out that the estimates had risen from £48 billion in 2002, to £56 billion in 2004 and to £70.2 billion in 2006.

The report stated, "Given the history of rapidly increasing estimates, the committee thinks it likely that the overall costs of £70.2 billion will rise significantly, both as further investigative work is done at the most difficult sites within Sellafield and Dounreay, and because the nuclear industry appears to be reluctant to continue reprocessing spent fuel while this remains more expensive than buying new stocks of uranium."

The committee also cited its concerns that the Nuclear Decommissioning Authority, the body set up to oversee the disposal of the waste, is being increasingly funded by the public purse.

Alongside the creation of an environmental crisis, the human cost of nuclear power has taken its toll internationally. In the United States alone cancers have been found in nearly 600,000 people who had worked in nuclear production since the beginning of World War II. These cancers include leukaemia, Hodgkin's lymphoma, and cancer of the prostate, kidney, salivary gland and lung. There is no real estimate regarding how many of these are the results of radiation and chemical exposure.

Nuclear disasters have continued over the decades with locations such as Three Mile Island in the US, Chernobyl in Russia and Sellafield in the UK becoming infamous.

Only last year there was a further leak at Sellafield's Thorp plant. The radioactive fuel, containing 20 tonnes of uranium and 160kg of plutonium (enough to make 20 nuclear weapons), was dissolved in 83,000 litres of nitric acid, half the volume of an Olympic swimming pool, on the plant's stainless steel floor. It was later revealed that the leak, springing from a badly designed pipe, may have gone undetected for up to eight months. Thorp was forced to close and may not reopen.

It is evident that the world's remaining fossil fuels will be exhausted within a few decades. Now more than ever it is necessary for mankind to develop an energy strategy based on the rational use of the world's resources, utilising the latest developments in energy technology for the benefit of the global population, not for the accumulation of profit.

Socialists regard nuclear power, in the first instance, as a promising and revolutionary technique. We are not opposed in principle to the development and use of nuclear power for peaceful purposes. Indeed the development and utilisation of new nuclear technologies and their rational use alongside other natural energy generation "renewable" schemes such as solar power and wind farms are a burning question for society.

It is on this basis the *World Socialist Web Site* calls for a moratorium on the use of existing nuclear power plants and the construction of any new

ones until the scientific and technological means for resolving safety issues, including the complex problem of nuclear waste disposal, are developed and systematically employed.

Under capitalism the nuclear industry has created an environmental catastrophe and imposed an intolerable financial burden on the world's population. Such a state of affairs can only be resolved through socialist means.

In the past decade astonishing scientific breakthroughs have been made in the field of nuclear fusion technology which promise the creation of a limitless energy resource without any radioactive waste. Nuclear fusion is the process powering the Sun and stars. In the core of the Sun, at temperatures of 10-15 million Kelvin, hydrogen is converted to helium by fusion. This provides the energy to keep the Sun burning—and in turn to sustain life on Earth.

Nuclear scientists based at the ITER experimental reactor at Cadarache in southern France are attempting fusion by heating very lightweight atoms to above 100 million degrees Celsius—or 10 times the temperature of the Sun. Experiments have already shown that it is possible to replicate this process on Earth. Existing nuclear power plants are based on splitting heavy uranium atoms to generate power.

Theoretically the production of electricity from a future nuclear fusion plant will be inherently safe and the basic fuels required, deuterium and lithium, are in plentiful supply all over the world. Deuterium can be extracted from all forms of water. The intermediate fuel—tritium—is radioactive and decays very quickly, producing a very low energy electron—Beta radiation. There is no nuclear waste resulting from nuclear fusion as the by-product is helium—an inert and harmless gas. The potential of fusion fuel as an energy resource is almost incalculable—one kilogram would produce the same amount of energy as 10,000,000 kg of fossil fuel.

While scientists have been able to make great strides in understanding nuclear fusion technology and developing the basis to implement it, they face numerous restrictions both in terms of future funding and conflicts between the rival powers behind the project. The European Union, the United States, Russia, Japan, South Korea and China are partners in the project. Before the project was finally given the go-ahead this year, it had been delayed for 18 months due to disagreements between France and Japan. Under the deal Japan will get 20 percent of the project's 200 research posts, while providing only 10 percent of the expenses.

Under current estimates, and on the basis of current funding, it is not expected that any kind of prototype nuclear fusion plant would be operable for between 30 and 40 years.

In the globalised world of the twenty-first century, it is not possible to develop a harmonious energy strategy based on the resources of one or even several countries. Such a perspective cannot be achieved within the framework of a "market"-orientated policy that remains subordinated to private ownership and control, and the drive of corporations for profit. A progressive energy system can only be achieved on an international basis as an integral component of a planned world economy—a principle that underpins the struggle for socialism.

Concluded



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