

project, so it may not be enough. So this investment may have to rise. Indeed this January the government announced it was investing a further £100 million in the project expressly to “maximise investor confidence”!

The second way is by the government introducing a different way of funding future nuclear power stations. Under the previous scheme the builders carried the cost of building, and had to wait till the power station is operating profitably, which may well take over 10 years before they can start recuperating this cost. The new way is called the “Regulated Asset Base”. This essentially involves the electricity customer pay for the building of the power station through an increase in their bills from the start of building.

How much will this be? The government has claimed that for a project “starting construction in 2023” (which can only be Sizewell C) this will amount for a “typical consumer...during this parliament” to an increase of “less than £1 a month” during the full construction phase. This sounds to me wildly optimistic and even then, with construction likely to take at least 10 years, that would mean an average extra payment of £120 over the 10 years for every consumer, and that’s just for one power station. And under the government’s current nuclear plan, eight new nuclear reactors are planned, which would mean nearly £1000 per consumer.

This method is certainly not new. TASC cites a similar financing scheme introduced in the USA in regard to financing a projected 31 new reactors. 29 of these were subsequently dropped, and for the Vogtle plant in Georgia, where the two remaining reactors are being built, the original cost estimate has already been doubled, with the reactors expected to come into operation at least five years behind schedule. It is estimated that this has resulted in US electricity consumers paying more than \$10 billion for cancelled nuclear plants and another \$13.5 billion in cost-overruns. Florida and South Carolina have now dropped the scheme.

The third way is through the payment by electricity customers of greatly increased costs through having to pay a lot extra for electricity being produced by nuclear power rather than through much cheaper methods that are available. Nuclear is one of the most expensive ways of generating electricity, according to recent analysis by the American asset management company Lazard.

It finds that the average cost of producing electricity through five ways to be as follows:

By sun it is £25 per megawatt hour (/MWh)

By onshore wind it is £29/MWh

By offshore wind it is £64/MWh

By nuclear it is £129/MWh

STAY OF EXECUTION?

The UKs existing nuclear power stations, bar one, are all due to close by 2028. They were all built between 1976 and 1988 and were originally due to close down at various dates between 2008 and 2018. Two, Dungeness B and Hunterston B were finally closed down last year and in May 2022 *the Guardian* reported that the closure of the two others, Heysham 2 and Torness, has been brought forward to 2028 from 2030.

In the same piece *the Guardian* reported that in face of this, the energy secretary Kwasi Kwarteng is believed to be open to an 18-month extension to the operational life of Hinkley Point B, presently due to close on 15th July this year. This power station started generating electricity as long ago as 1976 and has already had its life extended beyond its original closure date of 2012 more than once

In order for the extension to go ahead, EDF would have to present a safety case for the extension to the Office of Nuclear Regulation (ONR). This would include proving that the plant’s ageing graphite rods could be inserted rapidly enough to shut down the reactor even in the event of a large earthquake.

SAFETY AND SECURITY CONCERNS

One would hope that with many nuclear power stations kept running well beyond their original closure dates, concern for their safety and security would increase.

However the reverse appears to be the case. *The Guardian* reported in May 27th that according to information obtained by the investigative journalism organisation *Point Seven*, during 2021 the frequency of nuclear security inspections carried out by the ONR seems to have fallen to a four-year low, while the number of formal reports documenting security issues at UK’s nuclear power stations is at its highest level in 12 years.

Reports to the ONR include people gaining unsupervised access to secure areas and cybersecurity issues such as attacks by malicious software.

Dr. Paul Dorfman, chair of the Nuclear Generating Group was reported in *the Guardian* as commenting, “These figures seem to show a relaxation in security standards when it comes to the operation and regulation of sites that have the potential to cause great human and environmental harm...The broader picture raises significant concerns about ONR’s technical and human capacity to regulate what is potentially a very risky industry.”

RUSSIAN OCCUPATION OF UKRAINIAN NUCLEAR SITES

Russian troops occupied the highly-radioactive site of the 1986 Chernobyl nuclear disaster at the beginning of its invasion on 24th February and left it at the beginning of April.

Seemingly oblivious to the dangers, thousands of Russian tanks and troops entered the site’s exclusion zone on the 24th, churning up the highly-radioactive soil, even proceeding to dig trenches in it, where troops bunked down for over a month.

Russian aircraft flew over the site, ignoring the restricted airspace above it.

It was reported on 26th April, the 36th anniversary of the disaster, that an International Atomic Energy Agency (IAEA) team led by Director General Rafael Mariano Grossi is at Chernobyl to deliver equipment requested by Ukraine, check radiation levels and restore safeguards and monitoring systems at the site.

Russian troops also occupied the operating Zaporizhzhia Oblast 6-reactor nuclear power station in eastern Ukraine on 24th February, where they remain. The following day Russian forces shelled the plant, damaging a walkway between two reactors and starting a fire in a nearby building, though luckily no damage seems to have been done to the reactors themselves.

The IAEA expressed “grave concern” at the situation at the plant, especially Russian interference with the vital work of management and security staff.

The IAEA director general, Rafael Grossi is quoted as saying, “The deteriorating situation regarding vital communications between the regulator and the Zaporizhzhia [nuclear plant] is...of deep concern, especially during an armed conflict that may jeopardize nuclear facilities.

KICK NUCLEAR

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The monthly newsletter of Kick Nuclear and the Nuclear Trains Action Group (NTAG)

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We hold “**Remember Fukushima – End Nuclear Power**” vigils in London **on the 2nd and last Fridays of each month**, from 11am to 12.30pm outside the Japanese Embassy at 101-104 Piccadilly, followed by from 1 to 1.30pm outside the offices of the Tokyo Electric Power Company at Marlborough Court, 14-18 Holborn.

All anti-nuclear people are invited to join us.

THE COST OF NUCLEAR

This is neatly summarised in a report in the May edition of the *Together Against Sizewell C* (TASC) newsletter, so I can do no better than outline the points it makes.

The article begins by pointing out that there are three ways in which people will have to pay for the government’s new plans for the revival of nuclear power production in the UK.

The first way is by direct taxation, to cover the cost of investment. The government last year pledged to invest a massive £1.7 billion pounds in the plan to build a new nuclear power station at Sizewell C. This was after the government reneged on its agreement with the Chinese state-owned company, China General Nuclear Power (CGN) that it could build a nuclear power station at Bradwell in Essex, in return for large-scale investment in the building of French-designed nuclear power stations at Hinkley C and Sizewell C by Electricité de France (EDF)

However, EDF has been attempting desperately for some years to get other companies to invest in its nuclear projects in the UK, after other companies withdrew, without success except with CGN. The £1.7 bn government stake in Sizewell C can be seen as encouraging such investment by showing government support for the project. However the £1.7bn investment hardly covers the 20% stake CGN holds in the