



Towards a Sustainable
Western Somerset

Forum 21 Newsletter

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Working for a Fair and Sustainable Western Somerset

Yet another delay for Hinkley C



Artist's impression of Hinkley C. Will it ever be built?

A decision to further delay the launch of Hinkley C has sparked speculation that the power station may never get built.

The campaigning group Stop Hinkley reported that the final investment decision was taken off the agenda of EDF's board meeting in January because of serious concerns among the private investors about how the project will be financed. EDF has debts of €37 billion (£28 billion) and its share price has fallen from €29 in April 2014 to €11.87.

Peter Atherton, an analyst at Jefferies, the US investment bank, said: "Financing such a massive project

will place a significant strain on EDF's finances." EDF is struggling to find the cash for its 66.5% share of Hinkley Point C and is now "putting pressure on the [French] state, which owns 84.5% of the company, to come up with fresh funds".

According to Analysts at Bank of America Merrill Lynch EDF may now need

to find a new financial partner to fund 16.5% of the project, reducing EDF's share to 50%. The earliest a final investment decision can now be made would be 16 February.

However, local MP Ian Liddell-Grainger, told the Free Press last week that he had spoken to Energy Minister, Amber Rudd, who had told him the government was 'relaxed' about the delay.

In a statement, EDF Energy CEO Jean-Bernard Levy said the Hinkley project would be "launched very soon", and that it is "ready for a final investment decision".

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Public Meeting on Fracking
10 March 7pm at Washford Memorial Hall
Speaker Dr James Verdon - Geologist, Bristol University

For more information contact:
West Somerset Labour Party 01643 709478

Forum 21 is a not-for-profit company whose aims are to raise awareness about ecology, natural history, resource conservation, sustainable development and environmental studies as well as to conserve and protect the environment and natural resources.

Nuclear industry faces heavy losses and delayed startups

The Paris Agreement on climate change did not provide the push for nuclear power the industry had hoped and intensely worked for. The word 'nuclear' does not even appear in the 32-page Agreement.

Nuclear builders and the traditional utilities continue to struggle with the rapidly changing energy sector environment. The French state-controlled AREVA, having announced an outlook of a further "heavy loss" in 2015, was downgraded by credit-rating agency Standard & Poor's to B+ ("highly speculative"). On 29 December 2015, the company plunged to a new historic low on the stock market (€5.30 compared to €72.50 eight years ago).

On 7 December 2015, Euronext ejected the French heavy weight Électricité de France (EDF), the largest nuclear utility in the world and "pillar of the Paris Stock Exchange", from France's key stock market index, known as CAC40. One day later, EDF shares lost another 4% of

their value, which led to a new low, a drop of over 85% from its 2007 level. Two days later, the trade union representatives at the Central Enterprise Committee of EDF— unanimously and for the first time — launched an official "economic alert procedure" considering the "seriousness of the situation".

The French nuclear industry's international competitors are not doing much better. AREVA's Russian counterpart Atomenergoprom as well as the Japanese controlled Toshiba-Westinghouse were both downgraded to "junk" ("speculative") by credit-rating agencies during the year. The Chinese utility China General Nuclear Power Corporation (CGN), listed on the Hong Kong stock exchange, lost 45% of its stock value since June 2015, more than EDF in the same timeframe (-35%). Both companies cooperate on the Taishan project (comprised of two European Pressurized Water Reactors (EPRs) } which is now more than two years behind schedule.

This is still significantly better than the two other EPRs under construction in Europe, where Olkiluoto-3 in Finland is nine years behind schedule and the startup of the Flamanville-3 unit in France has been delayed by at least six years.

EDF had claimed in January 2015 that Taishan-1 would be commissioned "by the end of the year", which did not happen. However, the construction schedule might slip further following the discovery of serious fabrication flaws in the forgings of the Flamanville EPR pressure vessel head and bottom, made public by the French Nuclear Safety authorities in April 2015. No final decision on the safety case is expected before the end of 2016. The equivalent parts of the Taishan EPRs, forged in the same French AREVA facility are likely to have identical flaws.

It remains to be seen how the Chinese safety authorities will deal with the issue. Their attitude will be closely monitored by international observers as China embarks on a strategy of exporting its nuclear technology to other countries.

Belgium restarts cracked ageing plants

Belgium has restarted two ancient and cracked nuclear power plants nuclear experts believe could result in a disaster equivalent to Chernobyl.

A fire and explosion occurred recently in one of the plants. Belgium's nuclear safety chief called for checks after discovering 16,000 cracks.

The 25 oldest nuclear reactors in Europe are close to or past their 40 years of operation. And as nuclear plants get older, the number of failures and accidents keeps growing: there has already been a reported 50% increase in unexpected failures between 2000 and 2006.

Belgium is becoming a global symbol of the danger posed by ageing nuclear plants: in 2014, it set the world record for unexpected problems at its nuclear reactors: leaks, cracks and even an explosion last December. More worryingly, experts say that



because some of the cracks are on "one of the most vulnerable parts" of the plant, "if the reactor pressure fails, then we have a Chernobyl or a Fukushima-type accident".

The government says they need to keep these plants open to give electricity to the country but in the past two years they were closed 50% of the time for malfunctioning. Now the Belgian government is relying on its majority in parliament to get approval for two other plants on life support to remain in operation for another ten years.

Hinkley Point C will add 80% to our radioactive waste stockpile

The Stop Hinkley Campaign has released a new briefing on the huge impact the Somerset reactors would have on the UK's radioactive waste stockpile.

The proposed Hinkley Point C nuclear power station would produce radioactive wastes and spent fuel with a radioactivity inventory equal to roughly 80% of the radioactivity in all of the UK's existing radioactive wastes put together. As the UK Government awaits a final investment decision on possibly the most expensive infrastructure project in UK history, Stop Hinkley say ministers are misleading the public on how much nuclear waste it will create.

Help for private landlords to improve energy efficiency

Forum 21 has received a grant to help it work with private landlords to improve the energy efficiency of their properties. In 2018 new regulations will come into force which require all privately let accommodation to reach energy efficiency level E. Many properties in West Somerset are rated below this, especially if they have solid walls.

The project can help landlords improve their properties and bring them up to standard. As well as making the properties more comfortable and affordable for tenants, their value may also be increased. Forum 21 will be able to make a survey of the property and help to make informed choices about the most cost effective ways that

will achieve the necessary level and be beneficial to tenants.

Specifically, the Forum can offer some practical help and support: it can

- help landlords to understand and interpret what EPCs are saying;
- use equipment including a damp monitor, heat loss monitor and thermal camera to provide additional information about the building;
- provide a pack of information about local installers, builders, suppliers and materials;
- information about sources of funding;
- how to get the work done;
- access professional expertise when necessary.

The Forum welcomes approaches from landlords in

West Somerset who would like to work with them on this project.

Contact Forum 21 on 01984 634 242 or email:

mail@forum21.org.uk

Forum 21 is grateful to West Somerset Council for this grant from its Health and Wellbeing Fund.

Seed Swap and Seed Potato Sale Saturday 20 February 2016 10 – 12noon Methodist Church Hall, The Avenue, Minehead

Exchange seeds - bring your own to swap
Choose from 100s of packets
donated by seed companies

News in brief

Minehead library still has **OWLS** - energy monitors - for people to borrow.

Switching: Magna has negotiated a deal with OVO Energy for its tenants.

Plastic bags: Tesco has reported a 68% drop in plastic bag usage since the 5p charge was introduced. They are using the profit from sales to offer local Community Grants through the Groundwork organisation. Look at the Tesco website for more information. There has been a 90% drop in Asda stores.

COMMENT

Fracking near Hinkley Point – has the government lost its senses?

The latest round of fracking licences was revealed a few days before Christmas and received little attention. There's likely to be fierce opposition to the idea of fracking in sensitive areas of natural beauty – and near to Hinkley Point nuclear power station, *writes Maureen Smith.*

The fact that two licences to frack near nuclear reactors are being offered proves that the government – and presumably, their civil servants – have lost their senses. This will not only endanger the power station itself but damage the very fragile coastline. The increased heavy traffic, added to the expected traffic for Hinkley C construction, will create impossible and dangerous conditions. Have these people seen our roads?

The only explanation is greed for cheap, polluting energy, but in fact it takes almost as much energy to extract the shale oil as it gains and the entire industry is a giant Ponzi scheme to attract investment which will never pay back.

In the US the revenue from fracking is barely paying the interest on development loans. Any available investment should be spent on clean, renewable energy production and energy efficiency, instead of this high risk production of climate changing fuel.

Maureen Smith is a director of Forum 21 and a Minehead Town councillor. This item appeared as a letter in the Free Press on 8 January.

Forum 21's newsletter is published quarterly in July/August, October, January and April.

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Earth has entered a new geological epoch, say scientists

There is now compelling evidence that humanity's impact on the Earth's atmosphere, oceans and wildlife has pushed the world into a new geological epoch, according to a group of scientists.

The question of whether humans' combined environmental impact has tipped the planet into an "Anthropocene" – ending the current Holocene which began around 12,000 years ago – will be put to the geological body that formally approves such time divisions later this year.

The new study provides one of the strongest cases yet that from the amount of concrete mankind uses in building to the amount of plastic rubbish dumped in the oceans, Earth has entered a new geological epoch. "We could be looking here at a step-change from one world to another that justifies being called an epoch," said Dr Colin Waters, principal geologist at the British Geological Survey and an author on the study published in Science. "What this paper does

Air pollution in cities is reaching dangerous levels

The World Health Organisation (WHO) has issued a new warning about deadly levels of air pollution in many of the world's biggest cities.

Figures expected to be released soon by the Organisation will show that air pollution has got worse since 2014 a year in which hundreds of urban areas were badly affected. WHO says there is now a global "public health emergency" that will have untold financial implications for governments and their health services.

The latests data, taken from 2,000 cities, will show further deterioration in many places as populations have grown, leaving large areas under clouds of smog created by a mix of transport fumes, construction dust, toxic gases from power generation and wood burning in homes.

is to say the changes are as big as those that happened at the end of the last ice age."

According to Dr Waters, the scale and rate of change on measures such as CO₂ and methane concentrations in the atmosphere were much larger and faster than the changes that defined the start of the Holocene.

Humans have introduced entirely novel changes, geologically speaking, such as the roughly 300m metric tonnes of plastic produced annually. Concrete has become so prevalent in construction that more than half of all the concrete ever used was produced in the past 20 years. Wildlife, meanwhile, is being pushed into an ever smaller area of the Earth, with just 25% of ice-free land considered wild now compared to 50% three centuries ago. As a result,

Global heat records are due to human activities

The world's run of record-breaking hottest years is extremely unlikely to have happened without the global warming caused by human activities, according to new calculations.

Thirteen of the 15 hottest years in the 150-year-long record occurred between 2000-14 and the researchers found there is just a 0.01% chance that this happened due to natural variations in the planet's climate. 2015 was revealed to have smashed all earlier records recently, after the new study had been completed, meaning the odds that the record run of heat is a fluke are now even lower.

"Natural climate variations just can't explain the observed recent global

Earlier this year the toxic haze blanketing cities could be clearly seen from the international space station. Several streets in London exceeded their annual limits for nitrogen dioxide emissions.



Fishermen on a boat amid mostly plastic rubbish in Manila Bay, the Philippines. Humans have introduced 300m metric tonnes of plastic to the environment every year. Photograph: Erik de Castro/Reuters

rates of extinction of species are far above long-term averages.

But the study says the clearest fingerprint humans have left, in geological terms, is the presence of isotopes from nuclear weapons testing that took place in the 50s and 60s.

heat records, but manmade global warming can," said Prof Stefan Rahmstorf, at the Potsdam Institute for Climate Impact Research in Germany and one of the research team. He said the record heat brought substantial impacts: "It has led to unprecedented local heatwaves across the world, sadly resulting in loss of life and aggravating droughts and wildfires. The risk of heat extremes has been multiplied due to our interference with the Earth system, as our analysis shows."

The UN World Meteorological Organisation (WMO) confirmed that the global average surface temperature in 2015 shattered all previous records and said 15 of the 16 hottest years on record have all occurred since 2000. "We have reached for the first time the threshold of 1C above pre-industrial temperatures. It is a sobering moment in the history of our planet," said WMO secretary-general Petteri Taalas.