

For the latest news and more information, please see our website

Note: Once again, this edition of our newsletter has been delayed. Our apologies.

Jo and Eric

IN THIS NEWSLETTER

Sustainable Blewbury Organisation

Blewbury events and activities

Our 40th Newsletter

Repair Cafes

Apple Juicing

Garden Market

A Blewbury Wood?

News from Beeswax Farming

Short items and links

Cosy Homes Oxfordshire

Are the current 'long range' electric cars good enough?

Campaign for Clean Air

Longer article

Nuclear power in the UK: current status and problems

Sustainable Blewbury Organisation

The Covid-19 restrictions have meant that we decided to defer our AGM and we have decided that the most practical solution is to cover two years in one, with an enlarged agenda and a presentation of all our various activities.

In another change to our operations Glen Meadows has stepped down as Chair of Sustainable Blewbury and John Ogden has taken over the role with immediate effect. John has consulted with the Core Group directing our affairs and as a result has recommended priority areas for us to concentrate on in the next twelve months.

Glen will continue to be an active member of the Core Group and we would all like to take this opportunity to thank him for his great contribution over the years, long may it continue.

One priority area is to recruit more active members. From his consultations John has discovered that although people are happy to join a particular area that interests them, they often do not have the time to attend committee meetings.

SB Activities

We hope that all our existing activities such as apple juicing, garden market, hedge laying, community orchard, wildlife corridor, energy efficiency and thermal imaging, permaculture, Blewbury Climate Action, campaigning for cycle paths, and our talks programme will continue as before, together with our new woodland project.

Suggestions for possible new activities include developing our current involvement with our chalk streams and waterways, improving biodiversity, setting up our camera traps for wildlife, and new but important areas like air quality.

We also need volunteers in technical areas: our two websites (principally Sustainable Blewbury, but also Blewbury Climate Action), producing our Newsletter and monthly Bulletin entry, and in advocacy (keeping up with environmental and climate change news, writing to politicians, etc)

Sustainable Blewbury does a lot of different things – something *must* appeal to you if you are reading this newsletter. Tell us what you would like to do (or would like us to do) by emailing info@sustainable-blewbury.org.uk. We will then put you in touch with the best SB person to talk to.

Sustainable Blewbury events and activities

Our 40th Newsletter

It is difficult to believe that our first Newsletter was written in March 2010, explaining that with the formation of Sustainable Blewbury the structure of the old BVS Environment group would change. It was then that SB's wider interests took over with five themes: travel and transportation, energy and transport, food and farming, waste and recycling, natural environment and heritage. And there were three new projects: Downland, village fabric, and the restoration of the Berkshire Wagon. Similar to our current structure. And we had just become an Oxfordshire Community Action Group.

For the first few years, the Newsletter was put together by our secretary, Mike Marshall. By Newsletter 10 (February 2014), the newsletter had expanded from two pages to seven, and our chairman Mike Edmunds' editorial was "How do we engage with the climate change debate?" And Eric had written about "Nuclear power, pros, cons & UK status". Ian Bacon's article was "Community Energy – a possibility for Blewbury?". The article includes news of the Low Carbon Hub's community energy project, in which they aimed to install solar-panel arrays on a number of Oxfordshire schools.

Plus ça change?

Links to these and our other newsletters are on our newsletters web page, with links to that page on the top strip and also in the left-hand panel of all pages of the [Sustainable Blewbury website](#).



Cartoons from Newsletter 10

Repair Cafes

A recent CAG webinar discussed the problems of holding a repair cafe under current Covid-19 regulations. The audience watching the webinar included representatives of CAGs who had held successful online repair cafes, or none, Oxford City Council's Waste Reduction manager (stated aim zero waste!) and also their Waste Strategy manager, and so the discussion was productive.



Some CAGs had held online events (customers booked-in their items, delivered them to the repairer and collected them when ready). And at the other end of the scale another CAG had organised an outdoor Give-away Day, where people put unwanted items on a table at their gate, then people took what they wanted and left a donation for a local charity. (Sanitisers on tables, a rule of 'take what you touch' and not guaranteed virus free!)

There are many ways of fulfilling the aims of a full scale repair cafe on a reduced scale, and SB's plan is to hold a repair cafe in October, provided one of our community buildings allows bookings by then.

Apple Juicing

We have planned a full programme of apple juicing. However, keeping safe is easier for private hires of our equipment than at public sessions. **If you have a large crop of apples (more than one or two bucket-loads, we suggest that you hire our equipment to use at home.**

Private hire of apple juicing equipment

Hiring costs £10 for 24 hours in Blewbury and Upton, £15 per day elsewhere and includes detailed instructions. To book, or for more information, contact Eric at info@sustainable-blewbury.org.uk or 07935 232 296.

Public sessions

We are also running **public apple-juicing sessions on Sunday afternoons at Blewbury Manor from 2 to 4 pm for people who do not have huge quantities of apples**. Dates are

23 August
6 and 20 September
4 and 18 October

Please bring your apples **prepared and ready to be juiced**: wash windfalls and remove bad bits (there is no need to remove cores). We can pasteurise your juice so it will keep for up to a year – for this you need glass screw-top wine or drink bottles. Pasteurisation takes a while, so **if you would like us to pasteurise, please arrive before 3 pm**. You can also put apple juice into plastic bottles and freeze it. **Costs**: £1 per pressing (bucket or large basket of apples), pasteurising 30p per bottle.

Blewbury Garden Market

We have had a late-season start, resuming on Saturday mornings from 29 August (which was very successful). We will most likely not be using our gazebo, so we will be more dependent on dry weather. Bring home-grown fruit, veg, bread, pastries and other cooking, local honey, eggs and seasonal plants and flowers to sell at 9.00 am. Open for sales from 9.15 to 11.15 am. You set pricing for your goods; you keep 90% while 10% is held for our running expenses.

A Blewbury wood?

We want to play our part in planting trees as one way to fight climate change and we know there is wide support around the village for this. We are in discussion with Thames Water to take over a piece of land at the end of the concrete road leading north from the Village Hall. These discussions have now moved to a phase with the real prospect that we could begin work during this coming winter. The site was once the location of local sewage works; it is very overgrown and a wonderful natural habitat. We will need to plan carefully to develop a woodland for the village while doing the least possible damage to the ecology of the site. Ideas include creating a wetland area and planting disease-resistant ash and Dutch elm. If all is to go ahead – and we must await final decisions by Thames Water – then we shall need to recruit lots of help.

But to start off, if you think you can contribute to the planning stage, please contact John Ogden (jogden@blewbury.net) – we would particularly like help in creating a detailed plan of the whole area, so if this interests you or if it fits your skill set please let us know.

The wood will also need a new name. The Old Sewage Works is hardly descriptive of what we want to achieve. So start thinking about a new name – we will be asking for suggestions in the October Bulletin.

News from Beeswax Farm

Our first harvest of miscanthus: a flood management and biomass crop

Miscanthus (aka elephant grass) is a perennial biomass crop that grows well in poor quality soils, including ground that is waterlogged or prone to flooding. It takes a year or two to establish before competing grasses are dominated but it is then straightforward to maintain. It is first harvested after about three years and then each spring when it reaches 2–3 metres in height.

Beeswax has sown 250 acres of miscanthus on the Downs to the north of Compton, and harvested the first crop this spring with a yield of 1.4 tonnes per acre. This batch was sold but in future it will be



Photo: Bernard Mattimore
(we are now social distancing)





used to power the biomass boiler at Churn Stables, which supplies all the power for the yard and houses. A second biomass boiler is planned in Compton.

Miscanthus has important ecological benefits as it is carbon negative: once mature (approximately five years) it sequesters two tonnes of CO₂ in the soil per acre per year. It also feeds depleted soils by retaining important nutrients. For more details see recrops.com/miscanthus.

Alex Musson

* * * * *

Short items and links

Cosy Homes Oxfordshire



Cosy Homes Oxfordshire is a home eco-retrofit project that launched in early 2019 to help make homes across Oxfordshire more energy efficient. Its aims are stated as to improve thermal comfort and occupants' health, and at the same time to reduce energy demand and future proof against energy insecurity. The Low Carbon Hub (LCH) is in partnership with National Energy Foundation and RetrofitWorks to deliver this programme.

At a recent CAG webinar a Cosy Home spokesperson explained why retrofitting homes is so important in the effort to reduce climate change – 80% of our current housing stock will still be with us in 2050. To achieve the UK 2050 targets we should have started retrofitting 20M homes in 2018. Current government policies concentrate on new build, and could produce a temperature rise of *several times* the stated 1.5° target!

Research has shown that there are two factors which make home retrofit as effective as possible, which are:

- A whole-house approach, aiming to take a property to near net-zero energy demand in one step only, or in a phased approach where each phase of retrofit builds on the previous one;
- Having a single, trusted point of contact for the householders, who stays with them throughout the retrofit process.

The whole-house approach is important because of their aim to control ventilation, even eliminating draughts round things like light sockets. Fresh air in should equal stale air out.

If you register for their survey there is no commitment to go any further, and you would have the information for deciding for yourself what to do first!

You can read about the Cosy Home service and register for a survey on their website, and watch a short YouTube video of "A Day of energy assessments at Hook Norton" at bit.ly/3gCNNMV. There are two sorts of assessments: a **Remote Assessment** including a phone call (£75), or a **Full On-site Assessment** (3-hour-visit by assessors) costing £175. Both are described fully on their website, and result in a Full House Plan.

Green Home Grants

The government announced a Green Home Grant scheme on 28 August: a voucher worth up to £5,000 or £10,000 to help cover the cost of making energy efficiency improvements to your home. You can get more information and check for eligibility at Green Home Grant.

Jo Lakeland

Are the current 'long range' electric cars good enough?

One of the biggest issues that stops people buying pure-electric cars (not plug-in hybrids) has always been so-called 'range anxiety'. Cars with a range long enough to use for a reasonable daily commute are not necessarily convenient if they are a family's only car, because their range is not sufficient for a holiday needing a drive of several hundred miles in one day. But recently a number of pure-electric models with enough battery capacity to change that have appeared, typically with battery packs that store around 64 kWh of energy that last for well over 200 miles before a recharge is needed.



Nissan lithium battery pack

Electric cars are mechanically much simpler than fossil-fuel models and in the long-term should become less expensive to buy and service, but these long-range models are typically 'top of the range' and at present they tend to cost well over £30,000, mainly due to having a lot of upmarket options that may not be necessary or desired.

Simple physics tells us that an energy-efficient car should be relatively light in weight. But these long-range models tend to be heavier SUVs. A 64 kWh lithium battery pack weighs about 450 kg in a vehicle weighing close to 2 tonnes (even in a 'normal' car like a Nissan LEAF).

In addition, much of the microplastics increasingly polluting our environment seems to be coming from tyre wear and road surfaces, and heavier cars cause more of this sort of pollution than lighter cars; see bbc.co.uk/news/uk-53607147 and tinyurl.com/y44u4a6m

My conclusion is that we clearly need much lighter batteries with sufficient storage capacity, especially since mining lithium and other materials used in lithium-ion batteries causes a lot of environmental damage.

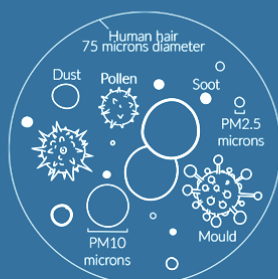
Eric Eisenhandler

Friends of the Earth: air pollution and the campaign for clean air

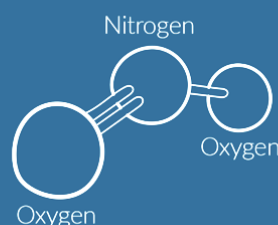
Air quality was included as a possible new area of activity for Sustainable Blewbury. Compared with some areas in cities, or even in the queue to drive over Wallingford Bridge before the bypass bridge was built, Blewbury's air quality is good. But before lockdown if you were walking along London road in the rush hour the air quality was very obviously poor, compared with the quality during lockdown and since.

This link to Friends of the Earth's (FOE) campaign: friendsoftheearth.uk/clean-air is included to provide some background to the problems of poor air quality, the different sorts of pollutants and news of their campaigns.

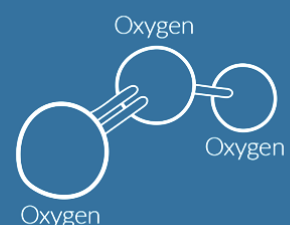
We're most concerned about three types of air pollutant that cause environmental and health problems:



Particulate matter (PMs). The most dangerous tiny particles of air pollution worsen heart and lung disease.



Nitrogen dioxide (NO2). High levels of NO2 can cause a flare-up of asthma or symptoms such as coughing and difficulty breathing.



Ground level ozone (O3). Ground level ozone can irritate the eyes, nose and throat.

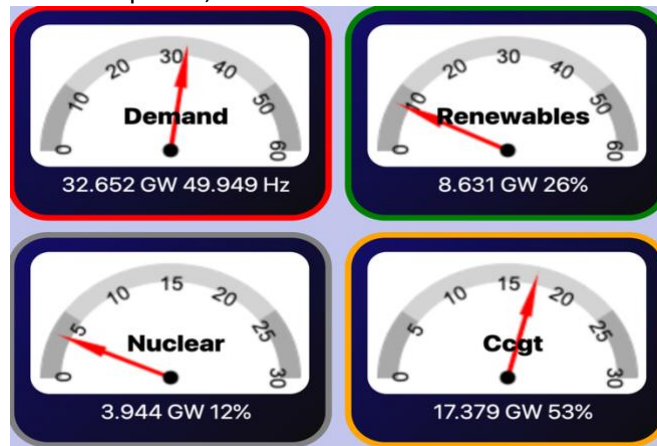
* * * * *

Nuclear Power in the UK: current status and problems

by Eric Eisenhandler

Background

If you look at gridwatch.co.uk you can see that nuclear normally provides a fairly constant supply of about 5–6 gigawatts of electrical power, which in normal times tends to be about one-sixth of the



Part of gridwatch UK's display

UK's electricity. That's not quite the whole story: one of our major international interconnections is a cable link with France, which more often than not is used to import French electricity, more than three-quarters of which is also generated using nuclear power.

In our newsletter [Number 31 of February, 2019](#) I summarised the status of new nuclear power projects being built and planned in the UK, and explained why in my view nuclear power does not look like a good fit with the UK's requirements for an electricity generation system largely based on renewable energy, predominantly offshore wind and solar. The inflexible nature of nuclear power, combined with its very high costs and long construction times, do not seem to be what is needed to fill the gaps in supplying electricity from a system based on intermittent and rapidly varying renewable electricity sources. Always-on nuclear power is not what's needed, especially if it costs considerably more than double the cost of renewable sources that are rapidly becoming cheaper.

Our existing nuclear reactors are all rather old, and plans for a new generation of nuclear power stations to replace them have almost all been cancelled, mainly due to high costs, as described in my earlier article. Efforts to extend the lifetimes of our existing nuclear power stations are being frustrated by existing reactors that are literally crumbling and that may be on the verge of becoming unsafe to operate.

Currently operating nuclear reactors in the UK

There is a good summary of the UK's current 'fleet' of nuclear reactors and its history in Wikipedia, at: tinyurl.com/tx5q7fs. The table below is largely based on that article.

All of our nuclear reactors are located on the sea coast and as I mentioned in our earlier article one concern regarding plans for new reactors, in view of climate change, is whether the proposed designs for new nuclear reactors make sufficient allowance for the possible effects of rising sea-level.



Sizewell B

All eight of the UK's operating nuclear power stations are owned and run by EDF Energy (which is about 84% owned by the French government). EDF also owns two-thirds of the UK's only active nuclear construction project (Hinkley Point C); the remaining one-third is owned by China General Nuclear (CGN; a Chinese government company). One of the more serious current proposals for new nuclear power in the UK, at Bradwell in Essex, is for CGN to build their own reactor design and another proposal, by EDF and CGN, is to build a copy of Hinkley Point C at Sizewell, in Suffolk. Seven of the eight existing nuclear power stations use AGRs (Advanced Gas-Cooled Reactors) and only the newest, Sizewell B, is a more modern (PWR) Pressurised Water design. All of the UK's first-generation Magnox reactors have now been shut down and are being (very expensively) decommissioned.

Station and reactors	Construction started	Commercial operation	Currently planned closure date	Operational percentage (2018)
Dungeness B1, B2	1965	1985, 1989	2028	61.6, 60.0
Hinkley Point B1, B2	1967	1976, 1977	2023	91.1, 80.5
Hunterston B1, B2	1967	1976	2022 (2021)	16.0, 73.5
Hartlepool 1, 2	1970	1989	2024	68.7, 88.5
Heysham A1, A2	1970	1989	2024	90.1, 69.5
Heysham B1, B2	1980	1989	2030	70.6, 94.5
Torness 1, 2	1980	1988, 1989	2030	95.1, 70.8
Sizewell B (PWR)	1988	1995	2035	89.4

Note that if Hinkley Point C becomes operational in the late 2020s, which is the current (and, based on EDFs track record, probably optimistic) prediction, five of these power stations are due to be switched off before it is available, leaving a gap in UK nuclear generating capacity. And most of the currently approved closure dates shown have already been extended by between five and 20 years.

Starting in 2006 Hinkley Point B and Hunterston were restricted to about 70% of their normal output because of problems requiring that they operate at reduced boiler temperatures. In 2013 their power limit was increased to about 80% of normal following modifications.

A 20-year life extension (not shown in the table) is the strategic target for the Sizewell B PWR.

Although renewables are regarded as intermittent, there have already been periods when several nuclear reactors have been out of action simultaneously for many months at a time, which also takes a large chunk out of the UK's electricity generating capacity 'Always on' is easy to say and may or may not be a useful goal, but the last column in the table tells a different story.

Current problems with AGRs

However, the major concern at present is due to what is happening inside the AGRs and what that might be telling us about what happens to these reactors in old age. EDF's fleet of 14 AGRs plays a significant part in the UK's energy production, generating around a sixth of our electricity

Large numbers of graphite (i.e. carbon) bricks are used in the core of all AGRs. They act as a moderator, slowing down neutrons and thus helping to keep the nuclear reaction going, and they also perform an important safety function by providing the structure through which CO₂ gas flows to cool and remove heat from the nuclear fuel.

Uranium fuel is inserted into the reactor through channels in the graphite core. Control rods, containing boron, are also inserted through other channels to control the reaction and to shut down the reactor. There are around 80 control rods in each reactor but only 12 are needed to shut it down.

This graphite was always expected to change over time, and it cannot be replaced or repaired. How it ages is a major factor that will determine how long Britain's AGRs will operate. Note that **Sizewell B** and the new **Hinkley Point C** are water-cooled reactors and do not have graphite cores.

The operating histories of the AGRs have been different. Some have fewer 'miles on the clock' meaning that the amount of power they have generated over their lives is less and some have differently designed graphite bricks. A combination of these things will determine how long each of these reactors generates electricity for.

There are two main changes to the graphite that are expected as it ages; these are cracking and weight loss.

Cracking happens when the stresses in the graphite bricks change over time. On their own, cracks do not make a reactor unsafe but they must not change the shape of the channels where the fuel sits in a way that will stop the reactor from shutting down in an earthquake larger than the UK has ever experienced (magnitude 5.2). And any fragments that come loose after cracks form must not affect the temperature of the fuel or prevent it being removed from the reactor.

Weight loss happens over a long period of time and can affect the ability of the graphite to act as a moderator.

Both of these developments are recognised in operational safety cases, which are agreed with the UK nuclear safety regulator, the ONR.

Continual monitoring and regular inspections aim to show conclusively that safe shutdown of these reactors during normal operation and in a highly unlikely earthquake is possible. All the AGRs will eventually exhibit some form of cracking towards the end of life says Richard Bradfield, chief technical officer for generation at EDF Energy: *"There are two irreplaceable components on an advanced gas-cooled reactor: the graphite and the boilers."* As Emily Gosden, writing in *The Times*, points out, all of *"the AGRs are scheduled to close permanently between 2023 and 2030, but all also have graphite cores that bring their lifespans into doubt."*

Hunterston B

is located in North Ayrshire, Scotland. Before lifetime extension, it was originally intended to run until 2011. Hunterston B is very similar in design to sister station Hinkley Point B, which is still due to operate until 2023. In 2006 the first signs of cracking graphite appeared at Hunterston. Its two reactors were shut down for much of 2018 and 2019 because of safety concerns due to damage to the graphite. One reactor was restarted on 25 August 2019 then shut down again on 10 December 2019. In August 2020, EDF received regulatory approval to restart the two reactors, in August and September 2020 respectively, before moving to defuel and decommission the plant starting in January 2022. But in August 2020, EDF Energy announced that the Hunterston is to be permanently shut down in 2021, one a year earlier than originally planned, with de-fuelling due to start in 2022, as the first step in decommissioning.



Hunterston B

Hinkley Point B

is located near Bridgwater, Somerset. It was the first commercial AGR to generate power to the National Grid, in 1976, and shares its design with Hunterston B. In 2016 the Office for Nuclear Regulation (ONR) raised concerns over the number of fractures in keyways that lock together the graphite bricks in the core. An unusual event, such as an earthquake, might destabilise the graphite so that ordinary control rods that shut the reactor down could not be inserted.

But it's not just Hunterston B and Hinkley Point B which are causing sleepless nights for EDF.

Hartlepool and Heysham A

Hartlepool is situated on the northern bank of the mouth of the River Tees. It was the third nuclear power station in the United Kingdom to use AGR technology. It was also the first nuclear power station to be built close to a major urban area. Heysham A, in Lancashire, is one of two separately managed stations near Heysham, each with two AGRs. Hartlepool and Heysham A are both due to shut-down in 2024. EDF says “we are confident they will operate to their scheduled closure date.”

Heysham A Power Station was recently served with an improvement notice by the Office for Nuclear Regulation after contravening safety regulations regarding the pressure systems of their nuclear reactor. Nuclear reactor pressure vessels feature hundreds of sealed penetrations which must be routinely inspected to ensure they are free from defects. Out of the 600 penetrations in one of the reactors ONR found that EDF Energy had failed to examine 11 penetrations within the intervals specified in the written maintenance scheme. EDF must comply with the improvement notice served to them by the ONR and complete the 11 overdue examinations by December, 2020.

Dungeness B

is located in the south of Kent. It has not been operating since September 2018 due to ongoing safety concerns regarding pipework. However, it has had its licence renewed until 2028, and is expected to restart in December 2020. There were many problems during its construction and the construction cost was four times the original estimate in inflation-adjusted terms.

In March 2009, serious problems were found when one of the reactors was shut down for maintenance, and the reactor remained out of action for almost 18 months. In 2015, the plant was given a second ten-year life extension, taking the proposed closure date to 2028. The boiler design at Dungeness was very different to other AGRs and probably would be the life-limiting factor for the plant. However, EDF says the issues are ‘manageable’.

Torness and Heysham B

Torness is located approximately 30 miles east of Edinburgh near Dunbar in East Lothian. It was the last of the United Kingdom's second-generation nuclear reactors to be commissioned, and is estimated to keep running until at least 2030. Heysham B shares its reactor design with Torness, and is a development of the reactor design used at Hinkley Point B.



On 1 August 2016, one of Heysham B's reactors broke the world record of 894 days for longest continuous operation of a nuclear generator without a shutdown.

On 15 August 2019, one of Heysham B's reactors let off a large amount of steam,

Torness

with banging noises at approximately 11pm that could be heard 7 miles away in Lancaster. This caused alarm among local residents, and numerous calls to the police reporting ‘gunshots’. EDF later reported that a reactor had earlier experienced a “non-planned shutdown after an electrical fault”, and the noise was from the re-start process.

The Office for Nuclear Regulation (ONR) has published a Project Assessment Report which allows Torness and Heysham 2 to continue operating for the period 2020 – 2030. The ONR said that cracking could cause debris to inhibit vital cooling of highly radioactive reactor fuel beginning as soon as 2022 rather than 2028. It said Torness and Heysham B will be able to keep operating until 2030 – but only if inspections to check for cracks are intensified. ONR promises to ‘robustly challenge’ the plant's operators, EDF Energy, to ensure that it ‘remains safe’.

Although no cracks have yet been detected, ONR inspectors pointed out there was a significant difference in the design of Torness and Heysham B compared to that of Hunterston. The newer

stations have seal rings between the graphite bricks that make up the reactor core. ONR quoted EDF saying that there could be *'a systematic failure' of the seal rings after cracking'*. This could lead to debris *'with the potential to challenge the ability to move or adequately cool fuel,'* said ONR. *"If keyway root cracking predictions are realised, then the safety case is unlikely to remain robust for the next ten years periodic safety review period"*, observed ONR inspectors.

AGR summary

Stephen Thomas, professor of energy policy at the University of Greenwich, has commented on the constantly postponed start-up dates for ageing AGRs: *"It is clear, given that shutdowns expected to take two months are now expected to take two years or more, that EDF has found huge unanticipated problems"*, he said. *"It is hard to understand why, when the scale of the problems became clear, EDF did not cut its losses and close the reactors, but continues to pour money into plants to get a couple more years of operation out of plants highly likely to be loss-makers. It is depressing that ONR, which has a duty to keep the public informed on such important issues, chooses to hide behind bland statements such as that it will take as long as it takes, and that it will not comment on EDF's decisions."*

What might replace the AGRs?

I am not a nuclear enthusiast. But If we don't want a substantial fraction of our electricity to be generated by Chinese-designed reactors at Bradwell and elsewhere run by a firm (China General Nuclear) owned the Chinese government, where else might new reactors come from?

One proposed solution, widely-touted recently in the UK, is so-called 'small modular reactors' (SMRs) that might be less expensive to build and safer, as much of the work would be done in a factory rather than on-site. The most commonly mentioned proposals come from Rolls Royce, the company that has built small reactors that power nuclear submarines.

Nuclear power reactors have become bigger, not smaller because there are economies in building things bigger. There seems to be no evidence that SMRs would help with to reduce the current very high cost of nuclear power; we don't know the cost of the nuclear reactors in submarines; what we do know is that these submarines have been, and are, very expensive. There is no evidence to back claims that there would be a substantial global market for SMRs.



Artist's impression of a UK SMR (from Rolls Royce website)

Part of the reason for wanting to keep a nuclear power industry in the UK is to be able to have enough people with the technical knowledge and experience to work on and advance our nuclear weapons programme. I believe that is why the UK government is willing to subsidise nuclear power, as they are doing with Hinkley Point C. Investing money in SMR development will mean less funding would be available to develop new, cleaner, renewable power sources. SMRs are not the answer to creating low-carbon economies by about 2030 (would they be available in time?).

The National Infrastructure Commission chief economist James Richardson warned that the nuclear industry has failed to deliver on technological promises in the past. *"You have to have a degree of caution with new nuclear technology,"* he said. *"We have been promised things time and time again and typically the industry tends to be more expensive and take longer than planned. ... "* SMRs are not going to help in the next decade because they are just not available. *By the time they turn up we can see if they are still cost effective or if renewables have gone beyond."*

UK Energy Research Centre director Jim Watson agreed, and added that the electric power sector should be decarbonised before SMRs can be deployed. *"I would also be cautious; we need to*

remember that 2030 is when we need to have decarbonised our power system by and I think there is a limit to which nuclear can help deliver that. We don't know what the real cost of these SMRs are. History does make us cautious."

* * * * *

The Sustainable Blewbury newsletter is produced and edited by Jo Lakeland and Eric Eisenhandler

In more normal times we have a wide-ranging programme of activities in and around the village. Participating is fun and can make a positive contribution to village life and the local environment.

If you'd like to get involved, or to receive our free bimonthly Newsletter, email us at info@sustainable-blewbury.org.uk or phone Eric at 01235 850558 or Jo at 01235 850490.