Sustainable Blewbury

www.sustainable-blewbury.org.uk

No. 36 **November/December 2019**

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

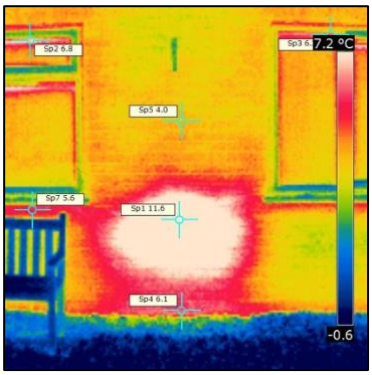
IN THIS NEWSLETTER

Sustainable Blewbury activities

Green drinks – Monday 2nd December, from 7.30pm at The Blueberry

Green drinks are a friendly chat over a drink, to ask questions or tell us what you think about green topics. At this session, items to talk about include the new Blewbury Climate Action initiative that we are undertaking with the Parish Council and our plans for a Repair Cafe in February. Everyone is welcome and we'd really like to hear what you think. It's completely informal with no fixed agenda, just come and chat.

Thermal imaging – get your home imaged for free in January



Sustainable Blewbury volunteers are again offering our free service to image homes in Blewbury. Thermal images can help make your home more comfortable, save money, and do a bit to save the planet by reducing your carbon footprint. Since 2009 we have imaged well over 200 houses in Blewbury. Contact us at info@sustainable-blewbury.org.uk or phone Eric at 07935 232 296 to be on our list or to get more information.

Would you like to help? It's interesting work and no experience is needed to help take the images. If you want to delve deeper, you can also help us to write reports. Just contact us as above.

'The adventures of a wildlife cameraman' – a talk by Sean Morris

Monday 27th January, 8.00 pm in the Melland Room, Blewbury Clubhouse. Tickets £4.00, from Blewbury Post Office in January. Doors open 7.30 pm, drinks available from the bar

Sean, who lives in Blewbury, says:
"For 40 years, I travelled the world, filming animals and plants for TV, often in remote and exotic locations. In 1968, seven biologists from Oxford University, united by the thrill of filming animals and plants, started a company called Oxford Scientific Films (OSF). OSF

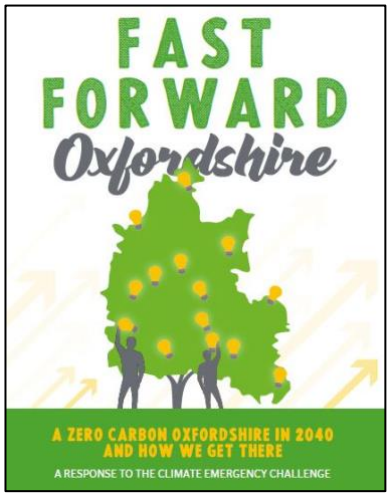
soon became the world's leading independent wildlife film company, and invented many of the specialist techniques now commonly used to create today's block-buster wildlife series.

"The techniques we invented, and others following from our example, dramatically enhanced how the wonders of the natural world could be communicated to the public. The talk will be about how a handful of folk in a little company near Woodstock achieved that, and about the fun and excitement we had while capturing some of nature's most fascinating stories on film."

Blewbury Climate Action

At last climate change and reducing carbon emission are a newsworthy part of the imminent election, so here is a roundup of some things happening locally.

Vale of the White Horse Council: Recently declared a Climate Emergency and are setting targets on reducing carbon. So there is a lot of debate locally about the ways we might transition to a net-zero carbon economy on a timescale that is fast enough to limit the effects of climate change sufficiently. bit.ly/2DlmkOH



Fast Forward Oxfordshire: A short, easy to read report produced by Oxford Friends of the Earth. It describes what living in Oxfordshire might be like in 2040 *if the climate emergency has been tackled effectively*. It covers homes and settlements, transport, work, energy, food and nature. You can download the report and, crucially, *the policies behind it*. www.oxfoe.co.uk/fastforward

Future Homes Standard: An important government consultation is going on until 10th January. It examines changes to the energy efficiency standards that new homes must be built to, starting in 2020. Many new homes will be constructed locally, so read the proposals and if you have opinions on them respond online to the consultation and register your thoughts. bit.ly/2OUB7Fk

General Election hustings: Question our local Labour, LibDem, Conservative and Independent parliamentary candidates about climate change on **Monday 2nd December, 19:30–21:30** at **Question Time, Sutton Courtenay Village Hall, 9 Hobbyhorse Lane, OX14 4BB**. Details at bit.ly/2R3Iay6. Live questions on the night, or in advance to RDr9982139@aol.com.

(With thanks to Giles Barwell of Sustainable Harwell for the information)

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Interesting items and links

Green social housing wins the Stirling prize

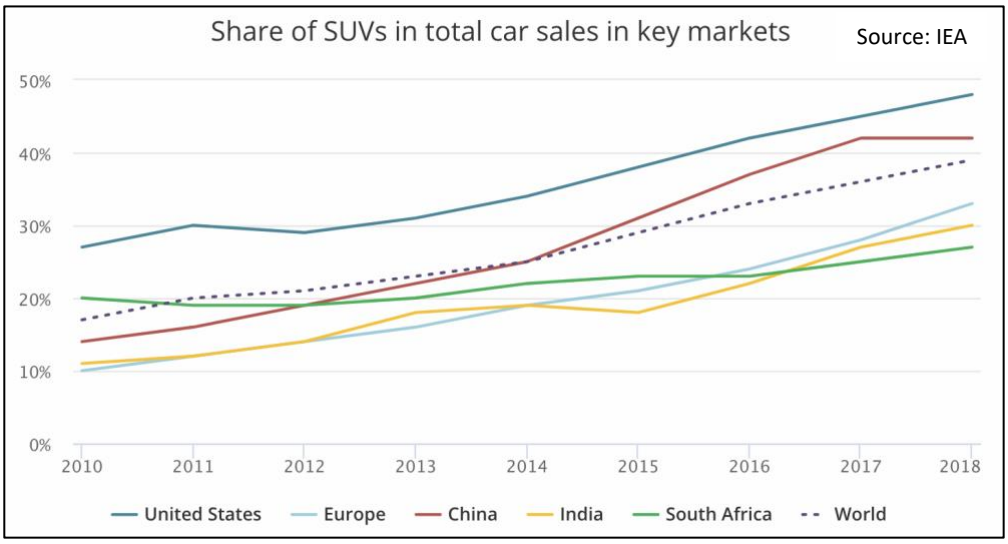
In our July/August 2019 newsletter (bit.ly/37gZnKf) we mentioned a striking, green social housing development, Goldsmith Street in Norwich, built to Passivhaus standards by Norwich council. In October it won architecture's Stirling prize for best new building in the UK, a first for social housing. The 105 houses were described as "a modest masterpiece", representing "high-quality architecture in its purest most environmentally and socially conscious form". The architects won the competition for the contract because they were one of the few firms to propose streets, rather than slabs of apartment blocks. See bit.ly/35dSx6o and bit.ly/2KsdB1d.

Building by local councils has become almost extinct due to financial cuts and the requirements of right-to-buy for council homes, but some councils have been finding new ways to do it. There's more about this at bit.ly/2rXvejb, and at least some of these developments have been quite green.

Eric Eisenhandler

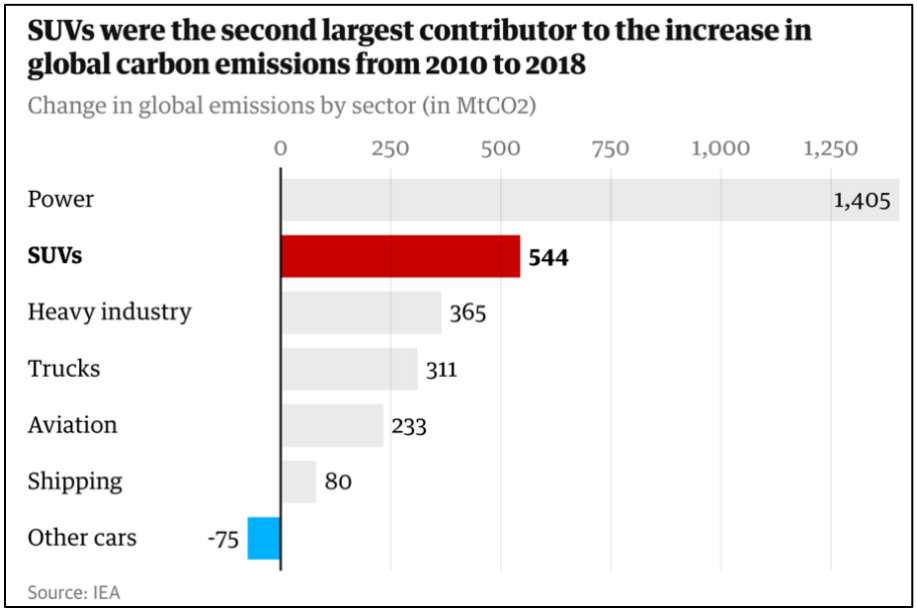
The current popularity of SUVs is damaging

You have probably noticed that cars are not only getting bigger, but also that more and more of them are SUVs ('Sports Utility Vehicles': 4x4s and so-called 'crossover' models styled like 4x4s). This is happening not just in the UK, which now has about 5 million SUVs – it's been a global phenomenon. Between 2010 and 2018 the global market share of SUVs rose from 17% to 39%.



Global carbon dioxide emissions are still rising. And because SUVs are bigger, heavier and less aerodynamic, they use more fuel and therefore emit more CO_2 than smaller cars. On average, SUVs consume about a quarter more fuel than medium-size cars. Emissions from 'normal' cars have been dropping as they become more efficient, but the rise in sales of SUVs has been the second largest cause of growing CO_2 emissions globally. (The largest rise was due to global electricity generation.)

In the UK, sales of SUVs have been at least partly encouraged by the taxes paid by motorists. Annual road tax was changed in 2017 – it no longer strongly encourages low-emission cars after their first year. Duty on fuel was supposed to rise in order to encourage fuel-efficient cars, but budget after budget has frozen fuel duty. In addition, grants to help buyers of new plug-in hybrid vehicles were ended this year, and grants for electric vehicles have been reduced from £4500 to £3500 – the government has also said these grants will end fairly soon, though it's not clear when.



You can find more details at bit.ly/2KuOjzC (Guardian) and bit.ly/2qnTlqD (International Energy Agency).

Eric Eisenhandler

*European Investment Bank ~~drops~~ will drop fossil fuel funding**

The European Investment Bank (EIB), the €555bn lending arm of the EU that is the world's largest international public bank, is to stop funding oil, coal and *most* gas projects at the end of 2021, cutting €2bn (£1.7bn) of annual investments.

But unfortunately, the ban is coming into effect a year later than originally proposed after lobbying by EU member states. Since 2013, the EIB has funded €13.4bn of fossil fuel projects and last year it funded about €2bn worth of projects, so presumably it will invest a few billion euros more by the end of 2021.

Under the new policy, energy projects applying for EIB funding will need to show they can produce one kilowatt-hour of energy while emitting less than 250 grams of carbon dioxide, a move which excludes *traditional* gas-burning power plants.

Gas projects are still possible, but would have to be based on what the bank called 'new technologies' such as carbon capture and storage, combining heat and power generation, or mixing in renewable gases with the fossil natural gas.

So, good news, but should be done sooner!

* The BBC News headline has been altered because the funding ban will not take place until the end of 2021. See www.bbc.co.uk/news/business-50427873). There's more on the EIB at bit.ly/2XqZgYf.

Jo Lakeland

One (small) step forward, two steps back

The oil, gas and coal companies have already found more fossil fuel resources than humankind can safely burn if we want to prevent the effects of climate change from running away, But that message has still not registered with the companies or the UK and other governments.

Fracking in the UK

Fracking for shale gas and oil in the UK has not yet produced any fuel. In Lancashire it has triggered small earthquakes, and elsewhere in the world working wells have caused problems ranging from polluted water supplies to leaks of methane to the atmosphere. (Methane, the main component of natural gas, is a potent greenhouse gas.) Fracking has never been allowed in Scotland and Wales.

In England a majority of the public is now opposed to fracking, so many of us were greatly relieved when the government announced a moratorium on fracking at the start of the general election campaign. However, I've called it a *small* step forward because the moratorium is not an outright ban – it allows for new scientific evidence showing how it can be done safely.

See for example www.bbc.co.uk/news/business-50390334. And a few days later the possibility that fracking might be resumed was out in the open: see bit.ly/2Kz0F9V.

Fracking financed by the UK in Argentina

In 2017, UK Export Finance, the government's foreign credit agency, promised to offer loans totalling £1bn to help UK companies export their expertise in "infrastructure, green energy and healthcare" to invest in Argentina's economy.

But instead, official records, released through a freedom of information request have revealed the government's plan to prioritise support for major oil companies, including Shell and BP, which are fracking in Argentina's vast Vaca Muerta shale region in Patagonia. One government memo, uncovered by Friends of the Earth, said that while Argentina's clean energy sector was growing, it was "Argentina's huge shale resources that offer the greatest potential" for the UK.

Argentina delivered its first-ever export of light crude oil and liquified natural gas from Vaca Muerta earlier this year, five years after local community protest was quashed by authorities using teargas and rubber bullets. Fracking had already caused irreversible damage to the ancestral homeland of the indigenous Mapuche people after a fire burned for more than three weeks next to a freshwater lake in Vaca Muerta. See bit.ly/2OpUPIX and bit.ly/2QujbUB for more information.

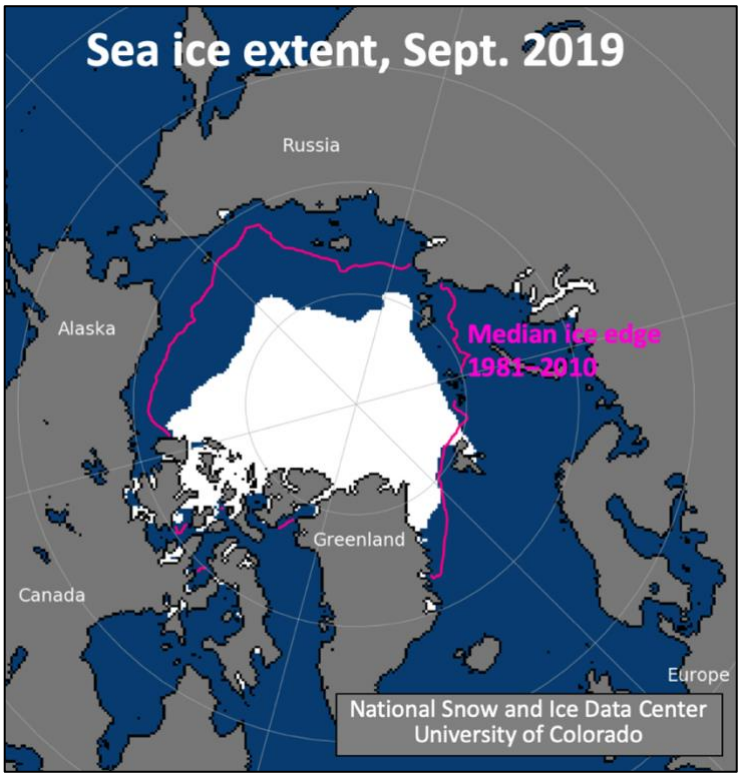
Cumbria coal mine

The last deep coal mine in England closed in 2016. But a new deep coal mine, Woodhouse Colliery, has now been approved at Whitehaven, in Cumbria. Government ministers overrode objections to its approval by Cumbria county council. Work on the site will start in 2020 and mining is expected to begin about two years later.

Tim Farron, Liberal Democrat MP for Westmorland and Lonsdale, described the news as "a kick in the teeth in the fight to tackle climate change … Cumbria has so many renewable resources to provide energy – water, wind and solar – and we should most definitely not be taking the backwards step of opening a new coal mine." See www.bbc.co.uk/news/uk-england-cumbria-50274212.

Eric Eisenhandler

Arctic sea ice, summer 2019



In September, Arctic sea ice reached its summer minimum extent for 2019, at 4.15 million sq km. This was joint second-lowest in the 40-year satellite record, tied with 2007 and 2016. (The lowest year was 2012.) The 13 lowest years in the satellite record for summer Arctic sea ice have *all* been in the last 13 years.

The map shows the September 2019 extent of ice in white, and the magenta line is the median ice minimum over the period 1981 to 2010. The 2019 minimum is 35% less than the median for 1981 to 2010. You can find more information on this at Carbon Brief: bit.ly/2r4uKai.

Eric Eisenhandler

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Natural Climate Solutions

by Jo Lakeland

Note: *The text of this article is based on: 'Natural climate solutions' (bit.ly/2QA3489), written for Marlborough News Online by Professor Dave Waltham, a geophysicist and former head of Earth Sciences at Royal Holloway, University of London, and on 'A call to action' by George Monbiot, writer, environmentalist and activist (www.naturalclimate.solutions/the-science).*

At the moment there is a lot of enthusiasm in Sustainable Blewbury for planting trees. and also a lot of talk about trees helping to absorb carbon. I do hope our new tree group do manage to plant trees in and around Blewbury, but I also wanted to find out just how well it would work.

Are trees the answer?

Over the past 200 years we've added as much carbon dioxide to the atmosphere as it already contained, and so the amount should have doubled. However, the CO_2 concentration has gone from 280 parts per million to about 410 parts per million – roughly half the increase expected!

That so much of the carbon dioxide has 'disappeared' is actually as we should expect. Some went into plants because they breathe in carbon dioxide and turn it into wood, leaves, fruit, oxygen and so on. Some went into soil because that's where plants (and bits of plants like leaves) end up when they die. And some dissolved in the oceans because of the mixing of air and water in rough seas.

Carbon also returns to the atmosphere when, for example, animals eat plants and breathe out carbon dioxide. So the carbon cycles around through air, oceans, plants and soil and gets shared between them.

This suggests a method of reducing the carbon in the atmosphere – can we get the other three carbon reservoirs (oceans, plants and soil) to keep more than their usual share? It would be unwise to store carbon dioxide in the oceans because they would become more acidic and acidification is already having a negative effect on marine life, so we are left with using plants and the soil.

Plants

The most obvious form of Natural Climate Solution (NCS) is also the one with the biggest capacity to make a difference – reforestation. Worldwide, a realistic reforestation programme could soak up 10 billion tonnes of carbon dioxide a year – that's a quarter of mankind's current emissions. There is actually quite a range of other possibilities for carbon-storing environments, including mangrove swamps, peat bog, salt marsh and seagrass beds. These are all NCSs, and recent research shows that together they could achieve up to 37% of carbon-capture goals.

So planting trees could make a difference, but remember that the trees we plant are small, and need years to grow, which means tree planting is a long-term solution. It will be years before the whips recently planted along the wildlife corridor from Rubble Pit Lane to Cow Lane (photo) absorb much carbon!

And if we value our environment we must plant mixed woodland, not (as in the past) monocultures of endless identical conifers which harbour less wildlife and store less carbon than natural forest.

Soil

But NCS does not stop with big plants (trees). Farming, and farmers, must be part of any realistic plan to tackle global warming. At the moment agriculture is a big net producer of greenhouse gases, and over-use of nitrogen fertiliser has already had disastrous environmental consequences. But farming can change from being part of the problem to being part of the solution.

The solution is to improve the organic content of soils. It's a win-win situation – food grows better in well-nourished soils and the soil also soaks up more water, thus reducing the number of floods and droughts. Organic matter contains carbon, so having more in the soil means there is less in the air.

There are a number of techniques that can make soil richer in organics – from spreading compost to application of biochar (charcoal made from food and other waste), reduced ploughing, and grazing cattle in woodland. Their impact could be enormous, perhaps capturing another five billion tonnes of carbon dioxide per year.

So why isn't it happening? At the moment Natural Climate Solutions only receive 2.5% of the money allocated by the Paris Climate Agreement for climate mitigation. Perhaps a cash incentive is needed to make NCS economically viable. That wouldn't be a farm subsidy – we would be paying farmers to provide a vital service.

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Today it's the Amazon's forests. Are our forests safe?

by Professor Dave Waltham

Note: *This article is reproduced by kind permission of Marlborough News Online. Prof. Waltham is a geophysicist and former head of Earth Sciences at Royal Holloway, University of London. Go to marlboroughnewsonline.co.uk/columnists/dave-waltham for more of his interesting, clear articles.*

Amazon wildfires – photo NASA

The images of fire in the Amazon rainforest are shocking everyone. I really hope that it is just the result of misguided policies by the new Brazilian government because, if it is, those policies can be reversed. There is another, and much more worrying, possibility – it may also be the consequence of climate change.

As NASA – whose satellites keep watch on the Amazon – puts it: "Both natural and man-made fires often coincide with the [Amazon's] dry season from July through October."

However, wildfire reports are coming with increasing frequency from across the globe. In the last year alone fires in the Arctic, Australia, Malaysia, California, Brazil and the Canary Islands have been big news.

Partly it's because forest fires have become newsworthy and are getting reported more often, but one of the predictions of climate science is that a warmer world is also one of more extreme weather. We can expect stronger winds, heavier rainfall, rougher seas and longer droughts and those droughts lead to wildfires.

Smoke from Amazon fires – photo NASA

The scientific evidence that global warming is causing at least some of the increase in wildfires is strong. It's been an area of intense scientific research since the early 1990s.

One paper by US Forest Service employee Matt Jolly and co-workers looked at the trends in forest fires from 1979 until 2013 (www.nature.com/articles/ncomms8537). Their conclusion was that the area of the world's forests that was vulnerable to wildfires had doubled.

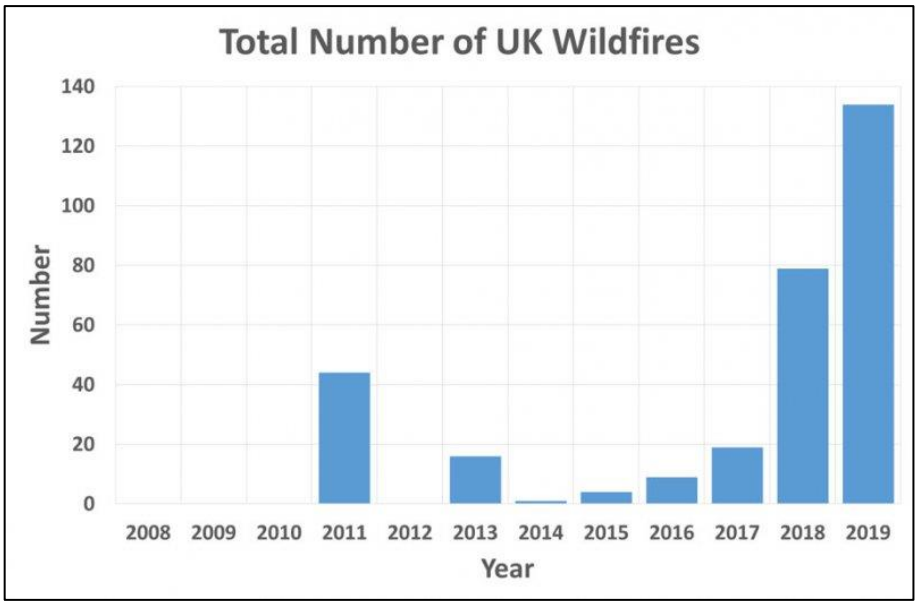
It's not just the destruction of biodiversity that's the concern here. The global output of carbon dioxide from forest and savannah fires is already about 25% of the amount from burning of fossil fuels (www.atmos-chem-phys.net/6/3423/2006/).

This leads to the possibility of a powerful positive feedback – *more warming gives more fires which gives more carbon dioxide which gives more warming*. If this cycle takes off then it will no longer matter whether we cut back our own emissions, we'll be stuck with extreme global warming.

Could such a cycle of increasing warmth and increasing forest fires even affect our own local forests? The short answer is yes. My colleague at Royal Holloway, Professor Andrew Scott, has spent his career looking at the evidence for fires in the distant past to try and understand the links between climate, fire and atmospheric composition.

He's sufficiently concerned about the increased risk of wildfires in the UK today to have been lobbying parliamentary committees to take it seriously.

The data seems to back him up, the graph shows the number of forest fires in the UK as determined by the European Forest Fire Information System. As you can see, 2019 is already the worst year on record] and there has been a dramatic increase since 2014.



There is a lot of fluctuation from year to year, as shown by the relatively high number of fires in 2011 and 2013, but nevertheless the trend is worrying. Future wildfires in Britain's forests cannot be ruled out.

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Low Carbon Hub: 'Inspired by communities'

by Jo Lakeland

'Inspired by communities' was a Low Carbon Hub event on 7th October, just prior to their AGM.

Background you may already be aware of:

- The Low Carbon Hub (LCH) develops community-owned renewable energy projects in Oxfordshire in partnership with schools, businesses and community groups, at no cost to their partners.
- The money to build the projects is raised through community share offers, and all LCH surpluses are then used to support further local carbon-cutting initiatives.
- The LCH provides practical support to Community Interest shareholder groups (CICs) who want to set up their own renewable or energy saving projects.
- Sustainable Blewbury is one of these shareholder groups, who each own a single £1 share!.

'Inspired by communities' was an opportunity for CICs like us to find out what other groups were doing through carbon-cutting initiatives with the aid of the LCH. This aid takes the form of both advice and financial support. Every year the LCH awards a very few £5000 grants to CICs, and a larger number of £500 grants for small projects, and it was inspiring to hear what had been achieved with the help of the grants.

Kirtlington village hall's solar roof

Sustainable Kirtlington successfully applied for a large grant for a feasibility study to see if their village hall was suitable for generating its own electricity with solar photovoltaic (PV) panels, and then to help purchase a battery for storage. The battery was important because PV panels generate electricity only during daylight hours, but the major community use was during the evenings. It was more cost-effective to store the energy for later use than to export it to the grid.

They were fortunate that £20,000 was covered by one large grant, and they also came up with an ingenious method of attracting donations from local people. There are 32 panels on the hall roof, and people could donate £800 for an entire panel, £400 for half a panel, etc. We must remember this if we ever get to the stage of wanting to put solar panels onto the village hall roof!

32 solar panels installed

8277 kWh electricity per year

£1338 earned per year from excess electricity

2.0 tonnes CO_2 emissions saved (March to August 2019)

Reducing Oxford's traffic pollution

The second project was by a group of North Oxford CICs, who wanted to reduce traffic pollution in Oxford. Because it was a group application, each group could apply for a small £500 grant to allow them to survey different traffic problems in Oxford. One group investigated the feasibility of pedestrianising Broad Street, another the problem of parcel deliveries to colleges blocking central Oxford's narrow streets (10 different companies deliver over 100 large parcels every day), a third researched low-traffic neighbourhoods (positioning barriers to stop rush hour rat-runs through residential streets – only bicycles and pedestrians can get through), and a fourth investigated the problem of delivery vans not respecting the permitted delivery hours in New Inn Hall Street, which is a narrow part of a national cycle route.

Kids CAN

Low Carbon West Oxford's project began because the speaker's daughter was terrified by what she had heard about climate change. Climate Action Network (Kids CAN) is a coalition of Oxford-based organisations and individuals working to create safe, fact-based and empowering climate-change resources and information for children, and to support the adults around them. The material they have produced is extremely professional and is available free online for anyone to use. It includes a PowerPoint presentation, lesson plan, a Fact Buster booklet and a workbook, that can be used for Key Stage 2 as a one-off, for a club, etc. They also run workshops for Key Stage 2 children and teachers, and are in the process of developing Key Stage 1 material. See kidsclimateaction.org for material and www.lowcarbonwestoxford.org.uk/kids-can-events for events.

Outside the green bubble

Eleanor Watts from Rose Hill & Iffley Low Carbon talked about their work in climate change education, focusing on trying to reach out to groups who are not yet involved in the climate change movement. She gave advice on how to avoid some of the mistakes that they had made in the past. You can download the case study here: bit.ly/2CXa7iV. It includes ideas for interesting disaffected youngsters and adults.

Finally, two different housing projects:

Hook Norton affordable & sustainable Community Led Housing Project

Architectural designer and TV presenter Charlie Luxton, on sustainable measures that could be installed in the 100,000 new homes planned for Oxfordshire. He illustrated this with the Hook Norton Project, in which the homes will be built to Passivhaus standards.

Transition Eynsham Area GreenTEA

Transition Eynsham Area is a collection of eight villages around Eynsham. They expect a large number of new houses to be built in their area and have just fixed the date (30 January 2020) for the referendum on their Neighbourhood Plan. They are attempting to contribute to the local energy plan

of the proposed Oxfordshire Garden Village project at Eynsham. Most of the new houses being built fail to address climate change and they are trying to persuade some of the huge property developers to build zero-carbon energy-positive houses. They are also trying to have the intended huge solar farm moved from an area of planned nature recovery to elsewhere.

Altogether a fascinating afternoon.

Case studies of LCH projects (including some of these projects) are to be found at www.lowcarbonhub.org/projects.

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

We have a substantial programme of activities in and around the village. Getting involved is fun and can make a very positive contribution to village life and local environment. If you'd like to get involved in what we do, or to receive our free Newsletter, email us at info@sustainable-blewbury.org.uk or phone Eric Eisenhandler at 01235 850558.