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u3a Climate Change & Environment

Second Nature 059 (Apr 2026)

Second Nature (SN) is a newsletter from the u3a Subject Adviser on Climate Change & Environment. Its primary purpose is to put forward topics that U3A climate groups might want to talk about. To ***subscribe*** *click here; to* ***unsubscribe*** *use the link in the email footer. If you have a friend or colleague who might like ihis newsletter please forward it to them.*

All past issues are available here.

Welcome to new subscribers Melanie from Eastwood and District, David from Warwick, Ian from East Grinstead, Dave from Barnet FoE, Charlotte from North London, Anthony from Windsor, Caroline from Perth, and Ruth from N/A.

This issue is mainly about electricity generation, both GB and globally, but it also contains comment about possible collapse of the AMOC, the Coalition of the Willing, microplastics, feeding garden birds, soap, and Izal Medicated toilet paper. It draws on material from BBC News, Carbon Brief, Defra, Ethical Consumer, the Guardian, The Observer, The Conversation, resourcemedia, Reuters, gridwatch.uk, the RSPB, and Our World in Data. All of it is gratefully acknowledged. I use sources that I believe to be credible and, in most cases, not behind paywalls. For some you may have to register.

Know your audience

The most used link in SN058 was Fiona Harvey's piece UK opening new oil and gas fields would imperil global climate goals, experts say. (For a different view see Nils Pratley's The UK needs more North Sea gas, not greater reliance on US imports.) Mark Maslin's Four ways to tackle health and climate together – and lift millions of people out of poverty and Simon Evans' Why does gas set the price of electricity, and is there an alternative? take joint second place.

Electricity

Defra announced on 21 April what it describes as "decisive action to break influence of gas on electricity prices". The measure include both stick and carrot:

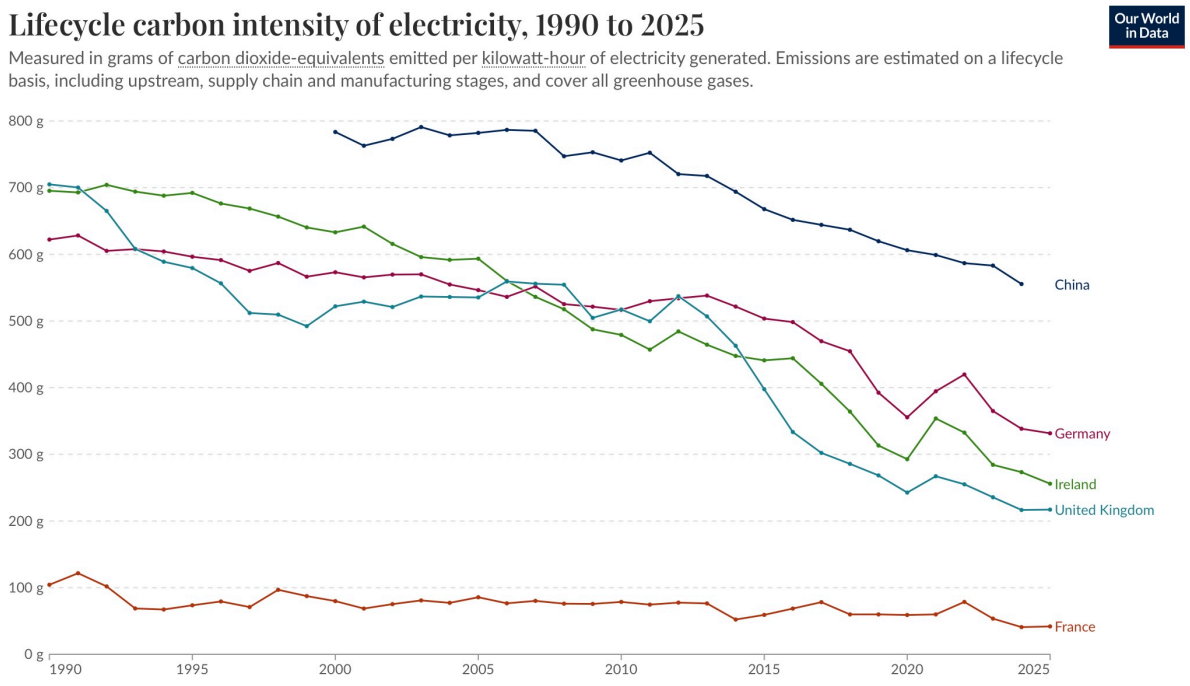
- the carrot: existing low-carbon generators not on fixed-price contracts – around a third of Britain's electricity supply - will be offered Contracts for Difference (CfDs). In effect, they are being asked to swop short-term windfall profits for long-term price stability.
- the stick: a tax on excess profits by raising the rate of the Electricity Generator Levy from 45% to 55%, so more of the extraordinary revenues generated when the gas price spikes is clawed back.

It will be interesting to see how "decisive" these actions turn out to be. Nils Pratley seems unimpressed; his piece in the Guardian gives a clear explanation of how Renewable Obligation payments, CfDs, and the wholesale price contribute to a generator's income.

Decisive action to break influence of gas on electricity prices | Defra 21 April
Miliband's plan is not a magic formula for lowering energy bills | Nils Pratley in the Guardian, 22 April

Carbon intensity of electricity

Our World in Data provides an interactive map which shows the carbon intensity of electricity in various countries: here I've charted France, UK, Germany, Ireland and China. Click on the chart to play with the data.



To be clear: this chart shows carbon intensity - the emissions from generating a unit of

electricity. The downward curves are encouraging but they only tell part of the story - you might think at first glance that China's emissions are going down, but they are at best flat. The amount of electricity generated in China is still rising year-on-year, and it's still dirty. France has some of the lowest-carbon power in the world because it gets two-thirds of its electricity from nuclear. The global average is 472g of CO_2e per kilowatt-hour of electricity; for France, 42g.

For a near-real-time view of the carbon intensity of GB electricity, use the NESO app. This week NESO has announced two new records: on 22 April GB reached 98.8% zero-carbon electricity, and on 23 April set a new record for solar generation at 15.158GW. I expect that this record will be broken again and again as we move into summer. The chart here shows 23 April (solar in yellow, wind light blue, gas light brown, nuclear in grey).

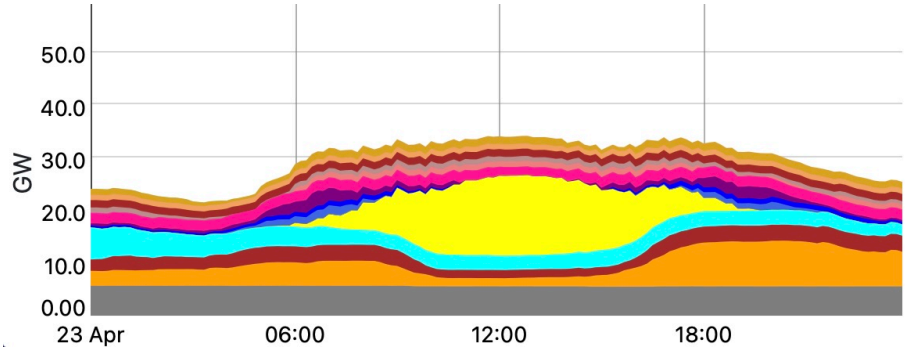


Chart from gridwatch: click on it for near real-time view of demand.

Reuters summarises GB generation in 2025, based on data from Defra:

- Renewables were up 5.7%, driven by record output from offshore wind, solar and bioenergy.
- Gas power generation rose by 4.7% and was the largest single source of electricity supplies at 31.5% of the total.
- Offshore wind generation increased by 6.6% in 2025 as more capacity was added.
- Nuclear generation fell by 12%, with older plants decommissioned and increased outages across the ageing fleet.
- 2025 was the first in more than 140 years with no coal-fired power generation.
- Electricity imports fell 11% from 2024's record high.
- Total electricity demand increased slightly, up 0.2%.

Separately, the government said that greenhouse gas emissions fell 2% in Britain in 2025, with emissions from the electricity sector down 1%.

Britain hits renewable power record in 2025, but fossil fuel use also up | Reuters 2 April

Globally all the growth in global electricity demand in 2025 was met from renewables, while fossil fuel generation remained flat. Solar generation rose by nearly a third in 2025; in the last decade it grew tenfold, roughly doubling every three years. More than half of the increase came from China.

[Growth of] clean generation exceeded rise in global electricity demand in 2025 I Fiona Harvey in the Guardian, 21 April

From Shetland to Southampton

One aspect of the GB electricity market that doesn't get enough attention is **curtailment** - when NESO pays renewable generators to turn off. This happens when there is demand but the grid does not have the transmission capacity to move power from where it is generated to where it is needed. The Observer reports on the Viking windfarm on Shetland, which last year was paid £9.86m not to generate electricity; its turbines were shut down about 65% of the time they could have been operating. Viking started operating in September 2024 and is connected to the mainland and the electricity grid by a 260km subsea cable. It's not connected to the local distribution network, so the locals largely rely on a diesel-powered station at Lerwick and a gas-powered station at Sullom Voe.

When windfarms shut down, gas-powered stations are used to meet demand. According to The Observer, which takes its data from kilowatts.io, 42 plants were paid £1.42bn from the start of 2025 to mid-April this year to replace the lost wind energy; the Grain power station in Kent was paid £162m, and the Marchwood power station near Southampton £134m. I can't help wondering whether something couldn't be done with the 'spare' electricity - hydrogen at the windfarm maybe, storage at the windfarm, perhaps even desalination. The generators get paid whether the windfarm is on or off, so they have no incentive to do these things.

Millions paid out to keep Shetland windfarm idle I Jon Ungoed-Thomas in The Observer, 19 March

Of course it's not a trivial problem to get electricity from Shetland to Southampton. NESOs Clean Power 2030 plan requires 1,000km of new onshore transmission lines and over 4,500km of offshore, with accompanying enabling works. My guess is that groups will spring up to oppose much of this. See Second Nature 026 for more on Clean Energy 2030.

Miles of pylons would decimate Derbyshire I Jude Winter and Hugh Casswell for the BBC, 4 March

To be clear: I'm not saying that nimbys are always wrong, but if we are to decarbonise GB electricity they can't all be right.

AMOC news

A catastrophic climate event is upon us, says George Monbiot, *[and] here is why you've heard so little about it.* He's talking about possible collapse of the Atlantic Meridional Overturning Circulation, the AMOC. You might have heard about it: it was the lead piece in Second Nature 042 back in September. George provides a graphic description of what collapse of the AMOC would mean:

... the AMOC delivers heat from the tropics to the North Atlantic. Recent research suggests that if it shuts down, it could cause both a massive drop in average winter temperatures in northern Europe and drastic changes in the Amazon's water cycles. This could help tip the rainforest into cascading collapse and trigger further disaster. A shutdown is likely also to cause an acceleration of sea level rise on the east coast of the US [and] could raise Antarctic temperatures by roughly 6C [which would] release a vast pulse of carbon currently stored in the Southern Ocean, accelerating climate catastrophe.

Even when the countervailing effects of generalised global heating are taken into account, a further paper proposes, the net impact in northern Europe would be periods of extreme cold – including events in which temperatures in London fall to -19C, in Edinburgh to -30C and in Oslo to -48C. Sea ice in February would extend as far as Lincolnshire. Our climate would change drastically, with the likelihood of far greater extremes, such as massive winter storms. Rain-fed arable agriculture would become impossible almost everywhere in the UK. [Edited]

I don't expect to live long enough to face this, but my grandchildren might have to.

A catastrophic climate event is upon us | George Monbiot in the Guardian, 23 April

Too much information (contd)

The latest Ethical Consumer looks at suncreams, shampoos, and 60 brands of soap. An impressive amount of work must go into these reviews, and even more into making and marketing 60 kinds of soap. I can't help thinking that the world would be better off with fewer kinds of soap.

In the press

The 'coalition of the willing' conference is scheduled for later this month in Columbia, with the objective of breaking the deadlock of the UN CoP talks. (There is a longer piece about this in Second Nature 058 earlier this month). The 54 countries that have confirmed their attendance represent about a fifth of global fossil fuel production and about a third of demand. They include the UK, the EU, Canada, and Australia and Turkey, which will jointly preside over CoP31 in November, but not the US, China, India, Russia and the Gulf petrostates. Other countries confirmed are some of the most vulnerable to the impacts of the climate crisis, such as small island states, but also fossil fuel producers such as Nigeria, Angola, Mexico and Brazil.

Colombia convenes climate 'coalition of the willing' to break global fossil fuel deadlock | Fiona Harvey and Jonathan Watts in the Guardian, 17 April

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Government has approved the UK's largest power-producing solar farm after a planning inquiry. The Springwell Solar Farm, between Lincoln and Sleaford, will cover 1,280 hectares

inquiry. The Springwell Solar Farm, between Lincoln and Gainsford, will cover 1,250 hectares (which the BBC tells me is the area of 1,700 football pitches).

Government approves UK's largest solar farm | Stuart Harratt for BBC News, 8 April 2026

Government has also approved work to begin building a new nuclear power station at Wylfa on Anglesey.

Green light to build nuclear power station | Oscar Edwards for BBC Wales, 13 April

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The RSPB is asking us not to fill **bird feeders** with seeds or peanuts between 1 May and 31 October. (I wish they'd said that before I bought that big bag of RSPB-branded sunflower seed at the garden centre last week). We can continue to offer small quantities of mealworms, fatballs, and suet. The advice is aimed at limiting the spread of disease in species such as the greenfinch.

Guidance on what and when to feed garden birds | RSPB
How to feed garden birds without spreading disease | Richard Gregory in The Conversation, 14 April

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A review commissioned by the Plastic Soup Foundation and authored by Dr Heather Leslie has catalogued **microplastic exposure** in food, indoor environments, outdoor sources, children's products and healthcare, drawing on 350 studies that considered around 60 different polymer types. As its name implies, the Plastic Soup Foundation is a campaigning organisation, and Leslie is open about the report's advocacy purpose.

Resourcemedia comments that *the underlying evidence has limitations. Many studies reviewed used small sample sizes. Quality control in microplastics analysis is still maturing, methodologies are not harmonised across laboratories, and particle counting and mass concentration methods sit awkwardly alongside each other. The report does not attempt to calculate total exposure.*

But Leslie says that these caveats do not undermine the central finding: *improvements in analytical quality control will not fundamentally change the conclusion that our plastic products are shedding significant quantities of microplastics and creating significant sum exposure scenarios for humans*.

Every plastic product sheds microplastics throughout its lifecycle | resourcemedia

Feedback and Groups News

David H emails: *just wanted to let you know we started a Climate Action group here in*

Warwick District (includes Leamington Spa). We've been going since Autumn 2025. Currently we are working our way through a free online course on climate change and action for a better world. This is provided on the Future Learn platform by the University of Leeds. It has videos to watch and lots of links to other resources, with questions for discussion. It provides a good structured way to learn about the issues and also stimulate action we can take. We are about 14 members and we meet monthly.

This sounds a great way to get a group up and running.

Climate Action: Tackling the Climate Crisis for a Better World I University of Leeds

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Retired energy consultant David emails:

Thanks for the latest Second Nature which has a lot of good stuff ...

More in this vein please.

... I think NESO and the CCC has too much focus on fossil-free electricity, and is not thinking much about the rest of the energy that the UK uses, around 2,000 TWh a year. Fossil free electricity from "renewables" is only about 12% of that 2,000 TWh. While the UK ambition is to at least double clean electricity by 2050 to be around 40% of the total demand, the rest is fossil fuels. I forecast a great deal of fossil-free energy will be supplied to from the Middle East, Africa and Spain where there is a huge increase in wind and solar power generation that will probably be shipped as liquid ammonia, a hydrogen carrier.

The UK needs to help the countries in the Middle East and Africa, especially Nigeria, to build solar and wind power capture, to replace their oil exports, so that we are first inline to purchase from them. At present the UK either produces our own oil and gas, or imports it mainly from the US and Norway, so we are not a major customer of those countries.

While many will argue that our primary energy demand has been dropping over the last 50 years, mainly due to better insulation and more efficient machines, this has flat-lined and will increase as the UK welcomes AI data centres that are very energy hungry, and the need for more for air conditioning as our air temperatures rise.

Clean electricity is what the mathematicians call a 'necessary but not sufficient condition' for getting to net zero. It is arguably the easy bit. Nevertheless I am impressed by how much has been done - if you had asked me a few years ago I wouldn't have bet that we would be seeing 80% of our electricity from zero-carbon sources on an April Friday afternoon (even if that does include Drax, whose green credentials are questionable). I certainly wouldn't have bet on 15GW of solar.

I've yet to be convinced by the ammonia argument. Presumably you take renewable power in

a desert somewhere and make hydrogen in an electrolyser (that needs clean water, which may be in short supply even if sunshine is plentiful); that's going to be (say) 60% efficient. If you go to ammonia using Haber Bosch that's 65% efficient; take off another few % to liquify and transport the ammonia, burn it in a turbine at say 50% efficient. You will only get around 15%-20% of that Moroccan electricity into the grid. That said, I don't have a better idea.

Thanks to those of you who shared your (not always fond) memories of Izal Medicated toilet paper. Eleanor says:

Thank you for your 'don't buy' recommendation for Izal toilet paper. I spent much of my junior school wondering why they provided us with this useless 'paper', when what we used at home was functional. Decades later, I entered a neighbour's house which felt rather like walking into a museum, and found string in the bathroom, holding squares of newspaper next to the toilet. An early example of repurposing? I expect it faded from most homes because of the newsprint issue, so we then used it for our fish and chips instead.

I have tried newspaper (for research purposes, you understand). It has the advantage that you can wipe your backside with photos of politicians that you don't like. I didn't persist with it, because I was worried about blocking the drains.

I read somewhere that posh Romans would use a dormouse. They are hard to find; I guess a fat hamster would do the job, although the RSPCA might have something to say. A synthetic eco-dormouse would be another possibility. Rodents are not flushable so all these options assume the availability of servants to clean the article before re-use: so especially these days this is for aristocrats only. I can see the day when a basket of artificial dormice will be the ultimate status symbol in upper-class bathrooms. Look out for me on Dragon's Den.

Jane shares rumours about child labour in the Izal supply chain:

I was born and spent my childhood years in Chapeltown where the Izal factory was based and can remember the smell of disinfectant that assaulted us if we passed by. The toilet paper which we and the local schools used was horrible! But what I recall most was my mother convincing us that the factory was in fact a bad boy's home and I just presumed that behind the factory doors naughty boys were on the production line. Indeed, I remember my brother, about seven at the time, packing his bags as he thought he had been naughty and

would be sent there. I don't know how my mother wriggled out of that one!

For the benefit of Izal's lawyers, I must make it clear that these allegations remain unsubstantiated.

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Readers who find this newsletter useful may also like the u3a Climate Change & Environment website and the Climate Group Leaders Facebook Group.

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find it !