

CONNECTING LOW CARBON GROUPS ACROSS THE COUNTY

Low Carbon Warwickshire Network

August 2024 – Issue - 41

The Low Carbon Warwickshire Network aims to connect low carbon groups across the county, sharing ideas and stimulating and supporting new activity. Although primarily rural in focus, we exclude no one.



<https://www.harburyenergy.co.uk/warwickshire-low-carbon-network>

Welcome to the Low Carbon Warwickshire Network (LCWN) Newsletter.

The LCWN aims to create a central hub providing guidance, information and inspiration for new and existing groups, mainly in rural areas. 'Low Carbon Communities' events have been held in Harbury, Napton on the Hill, Henley-in-Arden, Church Lawford, Boddington, Kenilworth, Brailes, Cubbington, Wroxall, Wellesbourne and Lillington. The next event may be in Binley Woods in November 2024.

Bee Friendly Warwick

The UK is home to 270 different types of bees, including 24 Bumblebees, 1 Honeybee, and a surprising variety of Solitary Bees.

Solitary Bees, often overlooked, are intriguing creatures. They exhibit a range of behaviours, shapes and sizes. With a short lifespan of only a few months, they waste no time creating nests for their offspring. Some dig circular holes in the soil, others use hollow tubes, and some even repurpose empty snail shells. They do not swarm and will not sting unless roughly handled or squashed; even then, it's not a powerful sting.

The leafcutter bee may use hollow tubes for its nest but will also lay its larvae in hanging baskets or plant pots. Each larva is left in an individual cocoon with a little store of pollen. Each cocoon is wrapped with a circle cut from a leaf or petal, and each looks like a green mini cigar.

This Leafcutter Bee was spotted in a local garden centre by Bee Friendly Warwick, making a nest! See how she landed with her circle of leaf. She will carry it down into the plant pot where she had chosen to lay her larvae. So, if you ever see a green mini cigar in some garden soil, keep it safe. In the spring, you can enjoy watching these amazing bees carry bits of leaf around your garden.



Sara Lever, Bee Friendly Warwick



Adopt a Verge for Pollinators

Local residents and Bee Friendly Warwick joined forces last year to convert a small strip of local verge on Cliffe Way into a haven for wildlife, having gratefully received permission from relevant councils.

Once the grass was mown and a patch of bare ground created, wildflowers were sown including knapweed and ox-eye daisies. The grass edging is being maintained by residents and the verge will be given an annual cut in autumn.



Wildflowers can take a few years to fully establish on an urban verge due to the years spent growing nutrient-rich grass—the opposite of what wildflowers like. However, over the seasons this year, we have seen different wildflowers emerging, meaning that on each visit, there is new interest in the form of colourful flower or long grasses swaying in the breeze!

The process of sowing the verge with more wildflowers for 2025 has started with more wildflower seed being added, alongside yellow rattle known as the meadow maker. We look forward to an even bigger splash of colour and yet more diversity in 2025.

As well as blossoming wildflowers, an uptick in biodiversity is already happening. Where there were no insects at all, there are now lots of ladybirds, grasshoppers and bees visiting the verge. This is a testament to the positive change we can bring about in our community.

Bee Friendly Warwick are aiming to create a whole network of pollinator friendly habitats across Warwick. Do you know of a wide verge or other green space near you that would benefit from wildflowers? Are your neighbours enthusiastic about reversing insect decline and happy to help? Please do get in touch if you have any ideas on how we could make Warwick more Bee Friendly, email: beefriendlywarwick@gmail.com let's take action together for pollinators!

Sara Lever, Bee Friendly Warwick

LCWN Steering Group

The Steering Group meet infrequently and only when we have something of significance to discuss. **If you would like to get in touch with us or wish to join the email address list to receive the Newsletter directly, please contact Bob Sherman at lowcarbonwarks@gmail.com**

To find out a little more about the steering group members see their '**who are we?**' answers:-

Bob Sherman - [LCWN-Newsletter-Issue-3-February-2021.pdf \(harburyenergy.co.uk\)](#)

Jacky Lawrence - [LCWN-Newsletter-Issue-7-June-2021.pdf \(harburyenergy.co.uk\)](#)

Ted Dowdeswell - [LCWN-Newsletter-Issue-9-August-2021.pdf \(harburyenergy.co.uk\)](#)

Ian Wood - [LCWN-Newsletter-Issue-10-September-2021.pdf \(harburyenergy.co.uk\)](#)

Teresa Buckle - [LCWN-Newsletter-February-2023-issue-24.pdf \(harburyenergy.co.uk\)](#)

Matt Black - [LCWN-Newsletter-April-2023-issue-26.pdf \(harburyenergy.co.uk\)](#)

Louise Bowlt - [LCWN-Newsletter-August-2023-issue-30.pdf \(harburyenergy.co.uk\)](#)



Do you want to host a LCWN event in your community?

If you would like to host an RSA funded “Low Carbon Community” event where you live, please email: lowcarbonwarks@gmail.com and let us know where and when and we will support you in planning it. You will not be on your own.

The LCWN Steering Group have also started to develop an **event resource library** to support your event planning. We have also enabled the opportunity to share **regular Parish Mag and other publications** between groups. Seven groups in the Network are now sharing their articles and a suggested communications plan has been developed. Get in touch with Jacky Lawrence for more details. email: lowcarbonwarks@gmail.com

The RSA

Callum Bate is the Area Manager for the Central Area. His contact details are: The RSA, 8 John Adam Street, London, WC2N 6EZ, e: Callum.Bate@rsa.org.uk, w: [The RSA - RSA](https://www.rsa.org.uk)



The RSA – the Royal Society for encouragement of the Arts, manufactures and commerce. Where world-leading ideas are turned into world-changing actions. The RSA is committed to a world where everyone can fulfil their potential and contribute to more resilient, rebalanced, and regenerative futures.

Act on Energy

Would you like to make your home warmer and more comfortable through retrofit? Are you struggling with your energy bills?



We're here to help! www.actonenergy.org.uk Call **0800 988 2881** or email **advice @actonenergy.org.uk**
[Act on Energy UK](#) | [Facebook](#)

With over 25 years' experience, **Act on Energy** is an award-winning energy advice charity covering the West Midlands, including Warwickshire. Working in partnership with the **Local Authorities** and external organisations, we offer a range of services - from **free, impartial energy advice** and help with applying for **grants and funding** for energy efficiency measures through to financial welfare support for those struggling with the cost of living.

Join us at the council-facilitated, community-led climate change local engagement event marking five years since SDC declared a climate emergency.

Stratford District Council Climate Assembly, Thursday 5th September, 10am-5pm.

Elizabeth House, Stratford-upon-Avon, CV37 6HX.

[Climate Assembly September 2024 | Stratford-on-Avon District Council](#)

[Energy Tickets, Thu 5 Sep 2024 at 11:00 | Eventbrite](#)



Diary Dates

AUGUST

Leamington EcoFest, Aug 31, 2024

Celebrate everything eco at the Pump Room Gardens, Leamington, on Saturday 31st August from 10am to 5pm. [EcoFest - Royal Leamington Spa \(royal-leamington-spa.co.uk\)](https://royal-leamington-spa.co.uk)

SEPTEMBER

North Warwickshire Borough Council Family Fun Days, 15th and 22nd September 2024

We have a couple of events coming up one in Ridge Lane on 15th September 11am – 3pm and one in Kingsbury on 22nd September 11am – 3pm. The events are primarily family fun days but we hope to incorporate stalls related to the cost of living and climate change. For more information contact: **Stephanie Wagstaff, Communities Officer, North Warwickshire Borough Council, Phone: 01827 719353**

WCA, Big Save, Mancetter Memorial Hall, September 21st 2024, 11 a.m. till 2 p.m.

The Warwickshire Climate Alliance Big Save event will take place at Mancetter Memorial Hall on the 21st of September, 2024 and follows the same approach as previous WCA events in Nuneaton and Coleshill. The event theme is to enthuse and enable local residents to achieve home energy cost savings from on-hand practical advice about insulation and draft proofing. Also, to provide information on alternative energy systems and energy provider advice.

Our 'Pop-Up' Repair Cafe will, hopefully, act as a catalyst to start a Mancetter Repair Cafe by realising both cost savings and community 'well-being', not to mention CO₂ emission reductions.

If anyone is interested in supporting the event planning or providing an activity on the day, please contact Steve Currie by email: stephenjames.currie@hotmail.com

THE BIG SAVE
Your actions count!

**Saturday
21 September
2024 11am - 2pm**

Mancetter Memorial Hall
Old Farm Road, Mancetter,
Atherstone, CV9 1QN

**Lots of activities
and cost-saving ideas
from local community
groups including:**

- Pop-up repair cafe
- Free refreshments
- Family-friendly activities
- Children's toy swap
- Free seeds and plants
- And much, much more!

**Learn simple actions that can
make a difference to you, your
family and the planet.**

Follow @WarwickshireClimateAlliance on Facebook
or @warclimate on Twitter to keep up to date with
the latest event news.

Funded by Warwickshire County Council's Green Shoots Community Climate Change Fund 2022

**Warwickshire
County Council**

**Warwickshire
CLIMATE
ALLIANCE**

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**Warwickshire
County Council**

**Warwickshire
CLIMATE
ALLIANCE**

Eco Anthem Competition, deadline 30th September 2024

Winners will receive a professional recording of their song and they aim for widespread distribution via social media, downloads, and airplay.

This project is supported by Artists Project Earth, who have supporting global ecological initiatives for 15 years with top artists in collaboration with The Resurgence Trust, which publishes Resurgence & Ecologist magazine and The Ecologist website, the pioneering, voices in the ecology movement for over 50 years. Learn more here: [Home](#) | [The Ecologist](#)

To submit your song/s, please send an MP3 or WAV as an email attachment or as a link to a shared drive to yasmin.ecoanthem@gmail.com by 30th September 2024.



Calling musicians of the world!

We're searching for a simple, compelling song that nature lovers around the world will want to sing. Whether you're a professional musician or record from your bedroom, we want to hear your song for Mother Earth. We seek songs that celebrate the wonders of our planet, such as mountains, rivers, and oceans, and emphasise the importance of protecting these precious ecosystems.

Bidford's Clothes Swap At the Village Cafe, First Saturday of each month, 2-4pm

Coffee, cake, a new outfit and a warm feeling knowing your unwanted clothes have a new life - what's not to like?

How does it work?

- Dig out up to 10 items of clothing that you don't want - clean and in reasonable condition, please
- Bring them along to the Clothes Swap
- Get a token to swap the same number of items
- Have fun choosing from the clothes, shoes, bags, hats, etc.

[Bidford Climate Change Action Group - Bidford-on-Avon Parish Council \(bidfordonavon-pc.gov.uk\)](http://bidfordonavon-pc.gov.uk)



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3. Get a token to swap the same number of items
4. Have fun choosing from the clothes, shoes, hats and accessories

No money changes hands - it's free to come and free to swap

Treat yourself at the cafe, make an occasion of it with friends, or just come along to the Swap

Just curious? Come and check it out and maybe swap another month 😊

Any questions? Ask Amanda bidfordclimate@gmail.com

At The Village Cafe, 48 High Street, Bidford-on-Avon (on the market place)

Supported by Your Village, Your Voice, Bidford-on-Avon Parish Council

OCTOBER

Bidford Climate Action Event, 20th October 2024

Bidford Climate Action will be holding an energy advice event of 20th October from 2-4pm at Bidford Fire Station (12 Court Way, Bidford-on-Avon, Alcester B50 4BN).

LCWN Schools Project Team – News and Useful Links

Funding Solar Panels for Schools

Heart of England Community Energy CIC is a not-for-profit community enterprise that owns a 15 Megawatt community solar array just outside of Stratford-upon-Avon. Our 60,000 solar panels have been generating electricity and income from the sun since 2016.



As a generator of electricity, HECE has benefited from the high energy prices that are a burden to consumers - households, businesses, community organisations and schools. We would love to be able to supply low-cost solar power directly to local consumers, but current legislation does not enable it. What we are doing is recycling the profits we make into helping our community reduce its energy consumption and supporting those struggling with the cost of living. To date we have provided support and funding to a multitude of community-led charities and projects with a positive social and environmental impact. You can find out more about us and the projects we have supported at: <https://www.hecommunityenergy.org>

HECE are excited to be able to offer a new funding package to help local schools and community organisations reduce their energy bills and carbon emissions, and to support energy and education initiatives. If your school can provide half hour electricity consumption data and HECE can confirm that enough of the solar energy produced would be consumed by the school, then HECE can offer:

- ✓ A 'Solar Soft Loan' to help schools and community buildings that would not have the funds themselves to install solar PV. For a typical primary school-scale PV system this could be £30-£50,000 and significantly more for a secondary school. We can support with feasibility studies and procuring installers if required.
- ✓ Grant funding for energy audits and carbon reduction plans to identify measures that could cut energy costs, and help access government funding.
- ✓ Grant funding for energy and environmental educational activities such as STEM green careers talks, student citizen's engagement, visits to our solar farm and nature-based learning facilities.

We would very much be interested in discussing these ideas with you and are keen to develop a plan to best fit your needs and interests. We recognise that there may be challenges or practicalities to be considered, and would greatly appreciate your thoughts.

Illustrative worked example

30kW solar array

Installation cost of £30,000, funded by a Solar Soft Loan.

Solar panels generate 30,000kWh/yr.

50% used by the school, 50% exported to grid.

Avoided cost of electricity: 25p/kWh retail rate x 15,000kWh:	£3,750
Electricity exported to grid: 7p/kWh export rate x 15,000kWh:	£1,050
Total benefit to school/community organisation:	£4,800
Less maintenance cost allowance:	£1,500
Net benefit:	<u>£3,300</u>
50% saving to school/community organisation:	£1,650
50% repayment HECE:	£1,650
HECE payback:	18 years

** The loan agreement will need approval of the school governing bodies and Department of Education (DofE). The full agreement is ready and we are working with Solicitors to obtain DofE approval.*

How Solar Soft Loans work:

- ✓ HECE provides a Solar Soft Loan* to the school/community organisation to pay for a solar PV system. The school/community organisation owns the system. There is no complicated roof lease or power purchase agreement.



- ✓ Solar electricity generated and used by the school/community organisation is free and reduces the amount of electricity it buys from a supplier. The school/community organisation will earn income from selling surplus solar electricity to a supplier.
- ✓ Loan repayments are based on 50% of the actual annual savings (after an allowance for the costs the school will incur maintaining the system). If the savings are less than expected, the loan will be repaid slower or may not be repaid in full. If the loan is not repaid after 20 years, the outstanding balance will be written off.
- ✓ HECE recoups capital over time to re-invest into a local low carbon soft loan fund to help other schools and community buildings do the same.

To find out more see:

[Heart of England Community Energy | HECE Community Solar Farm England \(hecommunityenergy.org\)](https://hecommunityenergy.org)
[HECE launches 'Solar Soft Loan' scheme \(hecommunityenergy.org\)](https://hecommunityenergy.org)

or email: info@hecommunityenergy.org or jake@cfric.co.uk

John Stott, Heart of England Community Energy, July 2024

Zero Carbon Schools Project



[Green Schools Project - ZERO CARBON SCHOOLS 2024-25 – SCHOOL AGREEMENT \(beaconforms.com\)](https://beaconforms.com)

[Zero Carbon Schools Information Sheet 2024-25 \(greenschoolsproject.org.uk\)](https://greenschoolsproject.org.uk)

[zero carbon schools - Green Schools Project](#)

[Environment Leadership | Our Programmes | Leadership Skills Foundation](#)

[Schools sign up | The Wildlife Trusts](#)

Henry Greenwood, Nell Byron and the Green Schools Project Team,

email: nell@greenschoolsproject.org.uk

Let's Go Zero

Is your school looking for support to become zero carbon?

As part of the Let's Go Zero campaign our team of Climate Action Advisors are here to give free and tailored advice to help green England's school buildings, transport, menus and more.

[Climate Action Advisors - Lets Go Zero](#)

[UK Climate Change • Let's Go Zero \(letsgozero.org\)](#)

www.letsgozero.org

[The Climate Action Countdown - Sign up! \(letsgozero.org\)](#)

Sarah Mills, Let's Go Zero Climate Action Advisor (Midlands), +44 20 7096 6120



Warwickshire County Council – Sustainable Warwickshire Podcast

Sustainable Sport – Warwickshire Clubs Take the Lead

If you play any outdoor sport, then the chances are at some point you will have been affected by extreme weather - the pitch might have been flooded perhaps, or the heatwave meant you had to cut your run short?

If so, then you might be interested to hear the stories of two Warwickshire sports clubs - Fillongley Cricket Club and Stratford Boat Club - which have both been proactive in making changes after recognising the link between climate change and their beloved sports.

So, if you'd like to hear about the barn owl taking charge in Fillongley as a result of improved biodiversity across the grounds, or how the Boat Club has switched from using chemical products when washing the boats to better protect the waterways, tune in to the latest edition of the Sustainable Warwickshire podcast - available on Spotify or Apple or at <https://sustainablewarwickshire.podbean.com>



Listen to the latest episode here: [Sustainable Warwickshire | Warwickshire County Council \(podbean.com\)](https://sustainablewarwickshire.podbean.com)

Ideas worth sharing

Llangattock Area Community Allotment Society – Solar Powered Borehole

The allotments at Llangattock had no mains-based water supply. Water for the plots had to be saved from rainfall or brought in containers. To install mains water would have had considerable on-going costs.

The community needed to come up with a solution to provide a reliable water supply, remove the need for connection to mains water, remove the need for an electrical grid connection and show their commitment to environmental sustainability.



They successfully applied for grant funding for a solar powered bore hole. The solar powered pump draws underground water to ground level and distributes it to 12 water butts across the site which can store 1,000 litres each.

To find out more see: [About us – Llangattock Green Valleys CIC](#)

Martin Orrill, Binley Woods Allotments

Low-Income Households Green Energy Project

By using National Grid ESO public data I have made an animated local map with accessible graphic design to show people living in low-income households how much wind and solar energy will be on their local grid over the next 48 hours, regardless of what tariff they are on. The amount of wind and solar energy on the local electricity grid in these areas often goes over 50%, which means there is more renewable energy going to people's homes than electricity made from fossil fuels. This is great for anyone who



feels like they don't have enough money to use green energy. Those vulnerable to fuel poverty can now check this green energy 48hr forecast and see when there will be more clean energy in their postcode area, and if convenient, decide to do energy intensive jobs like laundry during those times.

As a community volunteer, I would like to show you what I have made to help the poorest in our community know when they can use green energy. **Please let me know if this is of any interest** and I will arrange a call.

My Blog

The renewable energy transition towards a low-carbon energy future is a race against time leaving us with the challenge of learning about this subject at an accelerated rate.

With just over 10 years to complete the energy transition, and with many organisations looking at 2025 to make this leap, Renewable Transition blog posts will strive to highlight what appears to be working and what could be falling short.

We are fast approaching a time when most of our electricity will come from renewable sources. Most people are unaware of the huge amounts we are generating already. Feel good when the wind is blowing and the sun is shining, and tell people what you know about the renewable energy transition.

[About - Renewable Transition](#)

Noel Peatfield, phone: 07578 207072

Good News

PV on Kenilworth Methodist Church

More than a year ago I was asking round for PV installers who could quote for a 3-phase system for a local church. It was a long haul but eventually I had a range of proposals to choose from (and in February HMRC extended the VAT relief to include village halls and similar saving us 20% - hurrah!) so Kenilworth Methodist Church's 17kWp solar PV system eventually came into service at the start of July.

Details of the VAT relief on energy saving materials (ESMs) for village halls can be found here: [Extension of VAT energy-saving materials relief - GOV.UK \(www.gov.uk\)](#). This may come as good news for other community groups too.

Jan Burnell, Kenilworth All Together Greener

Ted's Tech – What do farmers do with potato tops?

What do farmers do with potato tops? They are a waste that has to be dealt with. The modern way is to spray with poisonous Roundup to kill them off prior to harvesting the potatoes, or literally to smash them into pieces using a flailing machine ahead of the harvester.

Researchers at Makerversity, London have found that they can produce a fibre and make clothing from potato haulm, using much less water and releasing less CO₂ than processing cotton, finally NO EXTRA LAND would be required !

To learn more search:- [fibe.uk](#)

[fibe - Developing world's most sustainable fibres](#)



Back to Hydrogen, my favourite subject, a new spin out company Open Water Power from MIT university, Massachusetts have found a way of making Hydrogen or Electricity from Seawater using Aluminium as a fuel plus coffee to perk up the process.

Search:- news.mit.edu/seawater+aluminium

[A recipe for zero-emissions fuel: Soda cans, seawater, and caffeine | MIT News | Massachusetts Institute of Technology](#)

Ted Dowdeswell, Member of Harbury Energy Initiative

Why do we burn gas in our homes? - by our guest blogger Neil Kitching

Here I make the case to use electricity to heat our homes for carbon, health and energy security reasons.

Householders and businesses in the UK face a stark choice. Heat their homes from 'natural' gas or from electricity. At present 85% choose, or more accurately default, to using natural gas.

Where does this gas come from? How does it get to your home?

History of Home Heating

Not so long ago we burnt coal to heat our homes. Miners drilled and dug this heavy material from deep coalmines in the UK, often working in dirty and dangerous conditions. Lorries transported the coal to our coal sheds. Every day we cleared out the ash, lit the fire and shovelled coal into our living rooms. In most cases the fire only heated one or two rooms at best. The smoke was bad for indoor air quality. Burning coal created 'acid rain'.

Then the great smog in London in 1952 resulted in around 10,000 excess deaths. The Clean Air Act was subsequently introduced in 1956 to reduce the amount of smoke pollution and sulphur dioxide. Smokeless coal was introduced.

The oil crisis of the 1970's resulted in an accelerated search for oil and gas in the North Sea. Gas was a cleaner fuel than coal, it was piped into our homes, and could be combined with hot water distribution pipes to produce 'central heating'. Given a choice between coal or gas, it was an easy choice to make. Householders who were unlucky enough not to be near to the new gas grid either continued to burn coal or switched to electric storage heaters. These heaters were 'charged' at night at cheap electricity rates. However, the early storage heaters were not very flexible, and often 'ran out' of heat by the evening. Modern storage heaters are better designed, and can benefit from access to flexible tariffs, however they are still more expensive to run than gas.

Heat Pumps

Heat pumps are a 'new' heating technology for the UK. They absorb ambient energy from outside and by doing so can produce around three times the amount of heat as the electricity required to run them. Their running costs are cost competitive with gas, especially if combined with solar pv or flexible electricity tariffs. Their carbon emissions are three times less than that of burning gas, and this is improving all the time as the UK grid decarbonises (target of 2030 for a carbon free grid). So, why don't we all have a heat pump? Why do we bring a potentially explosive gas into our house for heating and cooking which creates indoor air pollution by emitting nitrous oxide into our homes?



Lots of reasons are given to avoid or delay a decision to buy a heat pump including their high capital cost, the need to install larger radiators, lack of knowledge or confidence in a 'new' technology, and concern around repairs and maintenance. Ultimately, most of us are familiar with burning natural gas and don't see any urgency to change.

Once you have installed a heat pump, the energy market discriminates against you. Electricity costs are 'artificially' high because we pay the marginal cost of the most expensive generation (often gas) and because there are levies added to electricity bills which are not added to gas bills. The Government could (and should) choose to address these anomalies.

Where does our gas come from?

Until 2004 the UK was self-sufficient in natural gas but the output from the North Sea is in long-term decline. Now only 50% comes from the UK North Sea and this proportion is declining each year. Norway, a friendly neighbour, provides two-thirds of our gas imports by pipeline. There are also pipelines to the Netherlands and Belgium, but since the Russian invasion of Ukraine, imports from these two countries have virtually dried up. One third of imports are in the form of Liquefied Natural Gas (LNG), half of which comes from the USA (mostly from fracking) and one third from Qatar in the Middle East. We also import from as far afield as Peru. Imports from Russia have virtually ceased.

Where does our electricity come from?

The UK is predominately self-sufficient in electricity. To take advantage of changes in supply and demand, electricity is both imported (nuclear from France) and exported to neighbouring countries via interconnectors, but the net impact is not significant.

Given that most of our electricity is produced in the UK a shift from gas to electricity for heating will make the UK more energy self-reliant.

How is gas produced?

Gas is a natural, but non-renewable substance created millions of years ago by tiny organisms being buried in sediments, with subsequent decay and burial. Seismic surveys are used to identify pockets of underground gas. In suitable locations a drilling rig, or gas platform if in the sea, is built. Production wells drill into the rocks with gas pumped up to the surface. An alternative method is to frack shale rocks. Water with some sand and chemicals is pumped under pressure into the rocks forcing the gas out to the surface. Whilst this process is banned in the UK, it is common in the USA.

Gas is then processed to remove contaminants, stored then pressurised and piped to our homes via the gas network. An alternative long distance transport method is to cool the gas to -160°C so it becomes liquid then transport the reduced volume liquified gas by ship to the UK, where the liquification process is reversed back to gas and fed into pipelines.

Carbon Emissions

We should look at the entire lifecycle to compare the carbon emissions of burning gas or using electricity in our homes.



For gas:

- Carbon dioxide emitted as you burn gas in your home
- Emissions from pumping and distributing gas through pipelines to our homes
- Constructing the infrastructure to extract and process gas, eg from the North Sea and pipelines; plus
- Emissions from producing gas, including methane leaks

For electricity:

- Emissions from generating electricity
- Transmitting and distributing electricity to our homes (pylons and sub-stations)
- Constructing the infrastructure to generate electricity (coal, gas or nuclear power stations, hydro, solar and wind)

The Government helpfully publishes annual figures for the carbon emissions from burning gas or using direct electricity in your home. In 2023 they were similar at 0.20kg/0.21kg CO₂e per unit respectively. Emissions from transmission and distribution are included in the emission factor for electricity. But emissions from burning gas never change, whilst those from electricity are declining as the UK transitions to renewables. Already today a heat pump, with a 300% efficiency, will emit only one-third of the emissions of using gas. Heat pumps are therefore far cleaner than natural gas.

The embedded emissions from constructing gas rigs and electricity power stations, wind turbines or solar are much harder to calculate. These may seem large but are relatively small if distributed over the lifetime of the assets (I can't find good figures on this, although one report suggested that for gas power stations it would be around 10% of total lifetime emissions, whilst it would be less than half of this for wind and solar).

But producing gas has an additional operational component compared with using electricity (unless produced from burning gas). 14.5 million tonnes of CO₂e were emitted in the UK 2021 to extract and process oil and gas in the North Sea basin. These emissions arise from the power required to operate oil and gas rigs and from flaring and venting of methane. This venting of methane (80x worse than carbon dioxide) can add significantly to the environmental impact of gas. In addition, methane can leak from storage and the distribution network.

It is estimated that these emissions add another 6% to the total emissions of burning gas in your home. But this is an average for the UK. Pipeline imports from Norway (with few methane leaks) are the most 'efficient' at 3% whilst imports of LNG by ship are four times as carbon intensive (24%). This is due to the extremely energy intensive process of liquefying natural gas and transporting it by tanker.

Conclusions

We are accustomed to burning natural gas in our homes despite its dangers and climate impact. It is relatively cheap. However, increasingly our gas is being imported, with LNG imports having an even higher carbon footprint associated with their transportation.

Heat pumps are cleaner and greener. They can be deployed in individual houses, or in high density areas large heat pumps can efficiently heat multiple homes using district heat pipes. This is our future.



Carbon Choices: If you like my blogs, you might also enjoy my book, Carbon Choices on the common-sense solutions to our climate and nature crises. Available here [Buy \(carbonchoices.uk\)](https://carbonchoices.uk). I am donating one third of profits to rewilding projects. Follow me: @carbonchoicesuk ([twitter](#)) @carbonchoices ([Facebook](#)) @carbonchoices ([Instagram](#)).

[Why do we burn gas in our homes? \(carbonchoices.uk\)](https://carbonchoices.uk)

Neil Kitching, July 2024

Thoughts from an Organic Farmer – Growing like crazy... including the weeds

After a cold, wet spring, when many crops were delayed, stunted, or lost altogether, we are now seeing rampant growth and heavy yields. We usually enjoy an early crop of sweetcorn from our French farm, but this rotted in the seedbed, resulting in a total crop failure. The UK season is now beginning, so Riverford customers will start to see corn in their veg boxes at last. June and July's plantings of leeks, cabbage, and broccoli have had plenty of rain, and are growing vigorously above and below ground.



With planting nearly finished for the year, our main harvests still to come, and so many customers taking a break from deliveries (while they are on holiday or reaping the rewards of their efforts in gardens and allotments), August is normally a quiet month on the farm, bar a bit of weeding. This year, “a bit” has turned into a lot, as we struggle to control the weeds while they are small and vulnerable.

After planting cabbages, cauliflowers, leeks, or broccoli, the first tool for weeding is a flexible, thin-tined comb harrow. Once the crop is strong enough to stand firm in the soil (10-14 days after planting), the light tines are enough to dislodge, desiccate, or bury small weeds. But once the weeds have established themselves, or if damp weather allows them to re-root, our chance is lost.

Next come various blades, brushes, and ridgers. Many of these machines, especially on larger farms, are now guided by cameras, plant recognition software, and GPS – but the more sophisticated machines struggle on our stony slopes. If all else fails, we resort to long hoeing or even hand-pulling enough larger weeds to let the crop dominate.

Our aim is for the crop to capture light, water, and nutrients, and then create a canopy over any surviving weeds. We never want to remove all weeds; just to suppress them enough to avoid reducing yields or making harvests difficult. An under canopy of weeds can actually protect the soil through wet Devon winters.

Every year brings its particular weeds. In dry years, we struggle with fat hen. This wet, cool weather seems to have favoured redshank, which is annoyingly fast to establish and resistant to the comb harrow. Combined with enough rain to allow re-rooting, we have a back-breaking problem.

Even so, I think most farmers would choose this year's full, vigorous crops, weeds and all, over a thirsty, struggling crop without a single weed.

Guy Singh-Watson, 14th August 2024, farmer and founder and creator of Riverford Organic Farm



Useful Links

Funding Opportunities for Environmental Projects available (August 2024) [OneDrive \(sharepoint.com\)](#)

- [Free Trees for Schools and Communities - Woodland Trust](#)
- [Climate Action Fund - Our Shared Future | The National Lottery Community Fund \(tnlcommunityfund.org.uk\)](#)
- [Energy Efficiency Sharematch | Crowdfunder.co.uk](#)
- [Workplace Charging Scheme for state-funded education institutions - GOV-UK Find a grant \(find-government-grants.service.gov.uk\)](#)
- [VCSE Energy Efficiency Scheme - Groundwork](#)
- [SUEZ Communities Fund - Grantscape Grantscape](#)
- [Energy Resilience Fund - Power to Change](#)
- [ellerman.org.uk/apply-for-funding/what-we-fundn](#)
- [npower Business Solutions Foundation | community fund](#)
- [THE NINEVEH CHARITABLE TRUST | THE NINEVEH CHARITABLE TRUST \(ninevehtrust.org.uk\)](#)
- [Tomorrow's Climate Scientists | Royal Society](#)
- [Community Energy Fund | Community Energy England](#)
- [www.harburyenergy.co.uk](#)
- [Warwickshire Low Carbon Network – Harbury Energy Initiative](#)
- Community Energy Warwickshire Fund <https://www.heartofenglandcf.co.uk/wp-content/uploads/2020/12/CEW-2020.pdf> The fund aims to:
 - Support the development and installation of renewable energy projects
 - Encourage the sustainable use of energy and reductions in carbon emissions
 - Promote public awareness of environmental issues and support educational initiatives
 - Available Funding - There's grant of up to £2,000. Funding must be spent within 1 year. CEW-2020.pdf ([heartofenglandcf.co.uk](#))
- [Energy Efficiency Grants | Stratford-on-Avon District Council](#)
- [Green Homes Grants - Energy efficiency at home - Warwick District Council \(warwickdc.gov.uk\)](#)

Repair Cafés

- [Repair Cafés – Sustainable Warwickshire](#), (Alcester, Barford, Harbury, Kenilworth, Leamington Spa, Rugby, Stratford, Wellesbourne.
- <https://www.repaircafe.org/en/cafe/repair-cafe-southam/>
- <https://www.repaircafe.org/en/cafe/budbrooke-repair-cafe/>
- Napton on the Hill
- [Visit a Repair Café Near You \(repaircafe.org\)](#)

The Great Collaboration (1 hour) Banter Sessions for Town and Parish Councils

- [Banter sessions \(inc table of all sessions\) | Knowledgebase \(greatcollaboration.uk\)](#)
- [Banter 26: Messages, 03Jul24, Andrew Maliphant | Knowledgebase \(greatcollaboration.uk\)](#)
- [Banter 27: Creating Biodiverse Woodlands \(& ESG\), 10Jul24, Michael Cunningham | Knowledgebase \(greatcollaboration.uk\)](#)
- [Banter 28: Funding our Future, 17Jul24, Joolz Thompson | Knowledgebase \(greatcollaboration.uk\)](#)



- [Banter 29: Younity and Community Energy, 24Jul24, Michaela Cryar | Knowledgebase \(greatcollaboration.uk\)](#)
- [Banter 30: Programme Review, 31Jul24, Andrew Maliphant | Knowledgebase \(greatcollaboration.uk\)](#)
- [Banter 31: Peterborough Accelerated Net Zero Project, 07Aug23, Gemma Birley | Knowledgebase \(greatcollaboration.uk\)](#)
- [Banter 32: Sustainability in Sport, 14Aug24, Claudine Pearson | Knowledgebase \(greatcollaboration.uk\)](#)
- [Banter 33: Climate Change and the new Government, 21Aug24, Ed Gemmell | Knowledgebase \(greatcollaboration.uk\)](#)

Want to get involved? – Warwickshire’s Climate and Environmental Action Groups

LCWN Steering Group member, Ian Wood, has mapped the locations of all the Warwickshire climate and environment community action groups in the Network.

[LCWN Map - Google My Maps](#) (right click, open hyperlink).

If there are still gaps or errors in your entry, or if you have a question, please let Ian know.
email: lowcarbonwarks@gmail.com



The LCWN aims to bring people together to share ideas and stimulate new activity in rural areas.

Keen to see real practical change in your community?

Are you part of a local low carbon group? Why not join us and the groups already in the Network?



For contact names and details see the May 2023 or earlier newsletters.

[LCWN-Newsletter-May-2023-issue-27.pdf \(harburyenergy.co.uk\)](https://www.harburyenergy.co.uk/LCWN-Newsletter-May-2023-issue-27.pdf)

LCWN Facebook group

[Low Carbon Warwickshire Network | Facebook](https://www.facebook.com/Low-Carbon-Warwickshire-Network-101562702401683/)

Set up by Emma Powell for everyone to share useful things. Please like and follow it. Please send any comments to lowcarbonwarks@gmail.com

[\(2\) Low Carbon Warwickshire Network | Facebook](https://www.facebook.com/Low-Carbon-Warwickshire-Network-101562702401683/)

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Have your say— What do you want to see in future editions?

This is your newsletter and only as good as you make it – it is your opportunity to let us know what you wish to see in your newsletter:

publicise any on-line events you are holding, let other community groups know what you are currently up to, share your experiences, let others know of interesting low carbon news .



Previous Newsletters: [Warwickshire Low Carbon Network – Harbury Energy Initiative](#)

Ideas, requests, offers, Q & A, hints & tips

Please send all copy (by 12th of each month), news items, case studies, details of events, comments, suggestions and enquiries about this newsletter to: lowcarbonwarks@gmail.com referring to the issue date and number for queries or phone Jacky Lawrence on 07906 440496.

