

## UK2zero Parish and Town Council Newsletter

### Vol 1 Issue 1.

Feb/March 2022. Issue Number 1 focusses on two topics: wood for fuel, biodiversity and planetary health & community transport.

### Sustainable Wood Projects.

This section looks at wood-fired district heating schemes in and England and overseas, the importance of dead and decaying wood for biodiversity, wood burners, concluding by asking how 'green' can wood fuel be considered.



**District Heating (DH, )** does exist in rural England. One scheme uses local waste wood as fuel. There are several advantages. Communal boiler uses less energy than the total previously used by individuals ones. Heat is often more affordable than from domestic systems and communal boiler maintenance can be a bonus. Its commonly associated with dense residential housing in mainland Europe: Denmark , Germany and Sweden. But surprisingly the UK boasts many schemes too. **Email us for UK2zero's UK District Heating Paper. \_**

## **Springbok Sustainable Wood Heat Co-Operative:**

This UK District Heating scheme consumes genuine waste wood 'brash' : lower dead or fallen branches or felled tree tops and narrow branches with no commercial, but potentially biodiversity, value. The wood comes from a 16.5-hectare Surrey woodland, parts of which are very close to the 49 retired or invalided sailors' homes now connected to the scheme and enjoying cheaper hot water and heat. The schemes' proximity to its fuel source minimizes delivery fuel consumption and delivery emissions and carbon that would otherwise be embedded in delivery vehicles.

Gas was unavailable. Many of the twenty oil boilers supplying hot water and heat were old and inefficient but replacement costs were too high. Instead a waste-wood fired district heating scheme was developed. A new communal boiler went into a newly built boiler house. Three heat mains totalling just over half a kilometre in length were buried underground. A new subterranean fuel silo was built to store the waste-wood chip fuel.

**Funding** support came from The Energy4All co-operative. Employing 'The Social Enterprise Model' they paid small investors a return of around 5% . £425,000 was raised via two community share offers. District Heating Schemes can be complex with funding, research, energy consultant and Management fees; invoicing . Local Energy consultants provided unpaid work.

## **Waste Wood Pallet Biomass District Heating in Lot, France.**

In the Lot, France, remote housing clusters are heated by waste wood-pallet-fuelled communal boilers. Long electricity transmission runs lost power at run-ends causing power and heating cuts. Oil heating would have entailed long distance deliveries of expensive

oil; high levels of carbon embedded in transport vehicles and emissions from their fuel. Waste wood pallet -fuelled district heating is cheaper, avoids landfill, and stops it being left to rot outside and emit the most potent greenhouse gas: methane.

## **Wood-fired District Heating in Denmark**

The University of Copenhagen's Department of GeoSciences and Natural Resource Management's 2020 Report quantified carbon emissions reductions achieved by 10 Danish co-generation plants linked to District Heating Schemes, conversion from coal or natural gas to wood biomass. Coal to wood transitions realized the greatest reductions in the shortest time. (15-71% for coal; 4-19% for natural gas. after 6 years for coal; 10-22 years for natural gas). Waste from Danish logging provided the best way of lowering overall CO<sub>2</sub> reductions including tree loss and transportation.



### **Woodland Biodiversity**

**Biodiversity** benefited from the Springbok Sustainable Wood Heat Co-Operative as well as the CareAshore residents. Woodland management invigorated the woodland. Surrounding woodland around Springbok

Estate is one of the most important butterfly sites in Southern England.

Supported by Butterfly Conservation , managed woodland has seen the return of the rare Wood White Butterfly. In 2015 only the Speckled Wood Butterfly flourished; by 2017 it was joined by The Wood White.

<https://www.theguardian.com/environment/2017/>

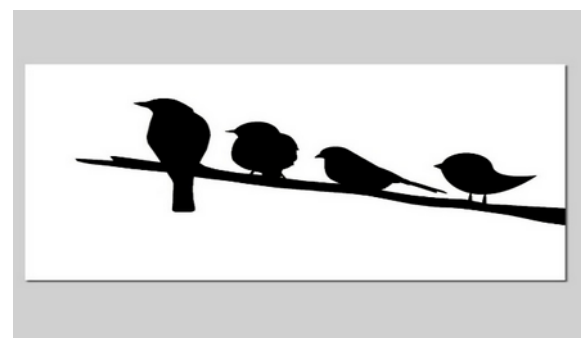
<https://www.springbokwoodheat.co.uk/biodiversity-benefits/>

Wood management is important for biodiversity. In Brittany an English resident works alongside his French farming neighbour , thinning his nearby wood under expert Estate Manager instruction. Jean Claude has walked those woods every day for 70 years. Richard and Jean Claude can purchase wood fuel at low cost and see regeneration follow their labours.

**Deadwood Management** If dead and dying trees can be made suitably safe, they can become an important resource for birdlife. They house insects, provide nesting cavities, perches , even bark dust baths.

<https://cavityconservation.com/value-of-dead-trees/value-of-dead-trees-for-birds/>

Invertebrates, cardinal oak jewel and stag beetle larvae; roosting bats, otters, Lichen and fungi depend on dead and decaying wood. Seed beds develop for new trees. Up to one-fifth of woodland species rely on dead and decaying wood. Retain it in concentrations to encourage interlinkages. A key international indicator of forest biodiversity it needs consideration alongside safety, timber, fuel and recreational needs.



<https://www.forestresearch.gov.uk/documents/6947/FCPG020.pdf>

**Wood Burners** It's cold. Many of us are lighting wood fires considered greener than coal, cheaper and more comforting than oil. Replacement softwood trees produces the least emissions, kiln the very least. 'Upside down lighting systems' are said to be the cleanest and 7 star wood burners , the best.

### **Is Wood a Green Fuel?**

Yes and No. Waste wood may be considered a 'bridge fuel' rather than a 'forever fuel'. It is widely believed to significantly lower local greenhouse gas emission but not entirely eliminate it.

A Renewable Natural Gas (RNG) from Wood Wastes trial in 2019 virtually eliminated emissions from biomass electricity generation, producing in the process a low carbon alternative to natural gas for transport industrial , commercial and residential arenas. It's not yet in commercial development.

Wood-fired schemes are still not zero-carbon. They remain low-carbon. Burning wood emits greenhouse gases. Decisions for and against still have to have to consider:

- Co2 emissions from wood combustion cause far less climate-damage than methane emitted from decaying brash or waste pallet decay.
- Far less carbon is emitted by wood, than by fossil-fuel, especially coal, combustion.
- Local brash or waste pallet combustion should ideally be subject to Energy Audits, and may come out quite well when emissions are weighed against those associated with carbon otherwise embedded in transmission lines, transport vehicles and delivery fuel .
- Woodland management and coppicing should be balanced with dead and decaying wood retention for biodiversity maintenance and expansion.

- Wood chips from established mature, hardwood trees imported from the USA, have no place in any sustainable energy system. Prime carbon sequestering hardwood forests take many decades to replace. Shipping emits greenhouse gas levels. Current 'waste-wood' claims are dubious .

## **Swaffham Prior Community Land Trust District Heating Scheme.**

Swaffham village is another rural district heating scheme. But it doesn't burn wood. Distant from the gas grid, 60% of Swaffham's 300 houses used expensive oil-fuelled heating.

Swaffham Prior Community Land Trust formed a Community Network aiming to:--

- End fuel poverty.
- Reduce oil (a fossil fuel) dependence.
- Provide cheap and renewable energy for Swaffham village.

**Air Source Heat Pumps** will generate thermal energy and pump it into 300 Swaffham homes. An Energy Centre has been built and heating pipeworks laid, in an operation designed to minimize disruption.

**Funding** was raised in a partnership with Bouyges Energy Services that secured a 50% advance commitment from residents.

The Trust will act as an Energy Supplier in tandem with Bouyges Services, the technical partner, with responsibilities for signing up customers, managing hot water supply, reading heat meters, and issuing quarterly invoices for consumed heat. Customer connections should start shortly in Spring 2022.

## **Section Two looks at Sustainable Local Transport Schemes**

Is there an electric car share scheme near you?

Could you start one?

**Community-owned electric cars** have been successfully introduced in communities. The Centre for Sustainable Energy has produced excellent



have  
some  
an

guide to Town and Parish

Council community transport, detailing vehicle and charging options, community car club logistics and even grant aid. Its web pages provide links to schemes like The Hayfield Sustainable Community Transport Scheme run bus for local Peak District Community Organisation use.

<https://impact-tool.org.uk/static/doc/Making%20your%20community%20EV%20ready.pdf>

**Co-Cars** offers low emission hybrid and electric cars on a pay-as-you-go

basis. Registration is on-line and once you have signed up you can access 60 plus Co-Wheels car sharing schemes across the UK.

<https://www.google.com/search?client=firefox-b-d&q=co+wheels+co+cars>

**Micro Car Clubs** based in the High Peak area of Derbyshire, enable people to convert their existing cars into 'Micro Car Club' cars. Small, closed groups of people with compatible needs for a car share access to one car instead of owning two or three. The first Micro Car Clubs are now starting to replace their original cars with leased electric vehicles.

[https://www.google.com/search?q=micro+car+clubs+peak+district&client=firefox-b-d&sxsrf=AOaemvK3hTga\\_Y8Mtrx](https://www.google.com/search?q=micro+car+clubs+peak+district&client=firefox-b-d&sxsrf=AOaemvK3hTga_Y8Mtrx)

**TECC—Teviot Electric Car Club Limited** is a fully mutual co-operative society using electric vehicles and a self-service system in the Scottish Borders.

<https://www.google.com/search?q=teviot+electric+car+club&client>

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**Car Chargers** Parish Council installation of electric vehicle chargers is relatively new on the block, but doesn't have to cost much.

**Bellingham Parish Council** have had Electric Car Chargers installed:

<https://www.bellinghamparishcouncil.gov.uk/evcharging.asp>

**Forest Row Parish Council** teamed up with a local company and installed an EVCP at the local community centre, supplied by 100% renewable electricity and FREE for use by members of the public. It is hoped that it will provide an incentive to use greener transport.

<https://www.zap-map.com/location/52wpj3k/>

**Mellor Parish Council** have installed two chargers in Mellor Community Hall

<https://www.mellorparishcouncil.org.uk/latest-news/68/mellor-parish-council-leads-the-charge-with-new-community-electric-vehicle-charging-points>

**Charge My Street** collaborated with Lancaster based community benefit society at no cost to the council. Charge My Street raises money through community share offers and receives funding from



Innovate UK for the installation of accessible chargers.

<https://chargemystreet.co.uk/>

## **Information Sources and Contacts**

**We bring news direct to your in-boxes of a number of net zero innovations.**

**Other guidance and expertise exists. You'll will probably be familiar with most but we list a few sources below 'just in case it's not the case'. You'll be able to amass a bibliography of sources and contacts over time.**

**The Local Climate Action Plan** points out that more than half of emission cuts rely upon local people and local business' action.

**Friends of the Earth Local Climate Action Plan** lists 20 actions Local, Parish and Town Councils can take to tackle Climate Change.

**Centre for Sustainable Energy Unit, University of Exeter.** Has produced a Parish Council action tool.

**National Association of Local Councils Climate Change Case Study** availability.

**Thank you for your interest. Please contact us with queries, ideas , info or should you wish us to stop sending issues to you.**

**CONTACT US BY: e-mail: [info@uk2zero.org](mailto:info@uk2zero.org)**

