Littlebury Energy Project

SAFFRON WALDEN COMMUNITY ENERGY

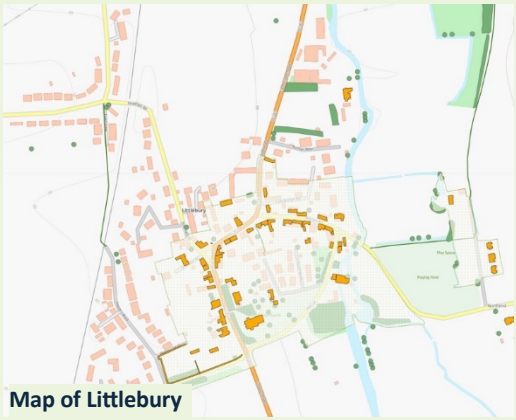
PULL-OUT SUPPLEMENT

Community Energy Fund Update

Littlebury was chosen by UDC to be a test case to explore how villages in Essex can reduce their reliance on fossil fuels in the future. The Littlebury Energy Project (LEP) has been proceeding well, and as part of the next stage we have been successful in obtaining £40,000 funding from the government's Community Energy Fund (CEF). This will enable a more detailed feasibility study into the options available to move away from oil and LPG heating to more sustainable energy in the long term.
This is a major success and recognition of the work that we as a village are doing!

The majority of LEP work so far has focussed on how we can save energy as individual households, learning about existing home energy improvements, looking for grants and supporting the take-up of solar panels, batteries, and heat-pumps.

The next phase of the LEP is to look at whether community scale renewable energy projects can help us move to more sustainable and cheaper energy. Many community energy groups around the country have successfully set up energy projects, such as small solar farms or heat networks. These are owned (partially or fully) by the community with any profits being used for the benefit of residents. In the case of heat networks, hot water can be piped from a single sustainable source to many houses in the village or areas of the village, rather like the way heat is distributed in blocks of flats.



Map of Littlebury

So the aim of this new phase is to assess the feasibility of the range of options from individual solutions for every single property, all the way through to community scale renewable energy for the village and everything in-between. ***Continued overleaf…***

"For Littlebury, by Littlebury"

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Finding out if a community project could provide the village with sustainable and cheaper energy requires more expertise than we currently have.
So, the Community Energy Fund is available for these kinds of study where there is sufficient interest and some of the groundwork has already been done.

With the CEF funding, an engineering consultancy firm will look at overall heat demand in the village and come up with ideas as to how this could be generated renewably. There are a wide range of options, from one big heat centre (such as at Swaffham Prior in Cambridgeshire) through smaller solutions for different areas of the village or supporting individual heat pumps in homes, or some combination of shared heating systems and individual systems.

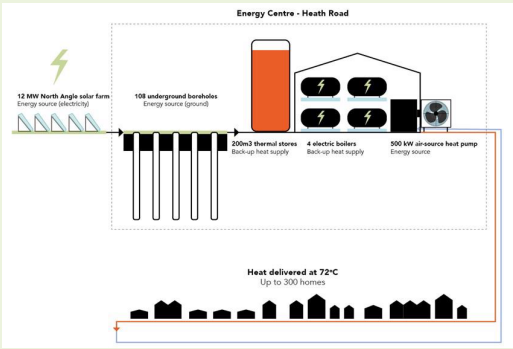

Diagram of the Swaffham Prior heat network using renewable ground source heat pumps.

This work will take a few months, and the resulting report will be available to the whole village. Importantly this is exploratory and for information only at this stage, so that we know what is technically possible and can estimate the potential costs involved.
Any future work based on this will be dependent on further discussion, engagement and agreement with the whole village.

We are excited to be able to take this next step, and very happy to answer any concerns - please feel free to contact Jonathan Ashe who will manage the project for the village or the LEP at **contact@lep.org.uk or 01799 252501.**

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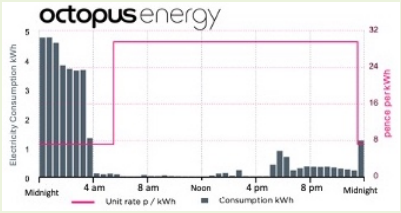
Using Variable Tariffs to Reduce Your Electricity Bill

This month Ian Dunham discusses how he has been exploring using 'load shifting' to reduce the cost paid for his electricity.

How do electricity prices vary?
Ian: Overall electricity demand in the UK changes by time of day and week. Demand and cost are highest in daytime and when domestic use peaks between 5 and 7 pm. When demand is low, e.g. overnight, the cost is lower, sometimes much lower.

How does this affect the home consumer?
Ian: Power companies offer variable rate tariffs to encourage electricity use at low demand times. An example is Economy 7 where the price is lower for 7 night hours. Sometimes some consumers even get paid to use electricity! On these tariffs, moving electricity usage to the cheap times will reduce your bill, so-called load shifting.

How have you been using this approach?
Ian: We were on a fixed rate tariff but had home batteries installed through Essex Solar Together to store excess solar panel energy for use during the evening. After some research, I realised that, particularly in winter, we could store cheap power in the batteries overnight and use the stored electricity during the day/evening. In January we switched to a variable rate tariff with 6 hours of cheap electricity.



A typical 24 hours electricity usage (grey boxes) in February mostly at cheap (7.5 p/unit) periods marked by the lower section of unit rate (red line).

What difference does this make?
Ian: Overall, we save quite a bit, around £60-70 in March versus a flat rate tariff. Total cost excluding standing charge is currently under £1 per day including cooking and will get less as we generate more solar power – in the summer we will switch to using only solar.

Is there anything else to think about?
Ian: One needs to consider overall savings versus the system cost. For us the benefit was a nice bonus on top of our primary aim to extend the usage of our solar power. There is energy loss to and from the batteries to account for, plus battery degradation over time. Conversely electricity generated at night is greenest, and we help reduce daytime demand on the grid.

Contact Littlebury Energy Project (LEP) at contact@lep.org.uk or 01799 252501

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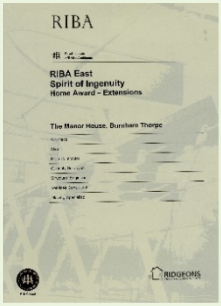
Jonathan Ashe is an award-winning RIBA Chartered Architect and Passivhaus Designer, specialising in Listed Buildings, energy efficient design & Planning Law.



Jonathan recently presented a UK-wide webinar on improving the energy efficiency of Listed Buildings, which can be viewed here… **https://lep.swce.co.uk/lbtalk**

Jonathan headed up the successful Community Energy Fund Application for the next phase of the Littlebury Energy Project and will oversee the feasibility study into how we decarbonise the entire village.

WATCH THIS SPACE FOR UPDATES IN THE COMING MONTHS.

In his LEP role, Jonathan offers advice to residents throughout Uttlesford on energy efficiency improvements to their homes, especially the 3000+ trickier Listed properties in UDC.

Can residents contact you direct for advice: Of course…either in my role as SWCE/LEP advisor or in my day job as a chartered Architect and Passivhaus Designer.

Jonathan's Grade II Listed home is available for viewing by appointment.

Contact Jonathan at enquiries@jonathanashe.co.uk, or contact@lep.org.uk.

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