Littlebury Energy Project

SAFFRON WALDEN COMMUNITY ENERGY

PULL-OUT SUPPLEMENT

Feasibility Study Update

Many thanks again to all the people who came to the meeting on Wednesday 25th September. Some details presented at the meeting are available below and at https://lep.swce.co.uk/feasibility-study-results/. However there has been a delay in the consultants finalising their report because of various novel aspects involved in modelling the potential solutions in a rural setting such as Littlebury in rolling hills. The team want to make sure they take into account all the relevant factors at this stage, and are still working on the report.

Audience questions asked at the Q&A session after the presentation are on the website, and we are hoping that the answers will be available at the time of publishing this issue, but we will put them up on the website as soon as we have them. Similarly, the report will go up as soon as we have it.

We'd like to apologise for these delays.

Feasibility Study Meeting

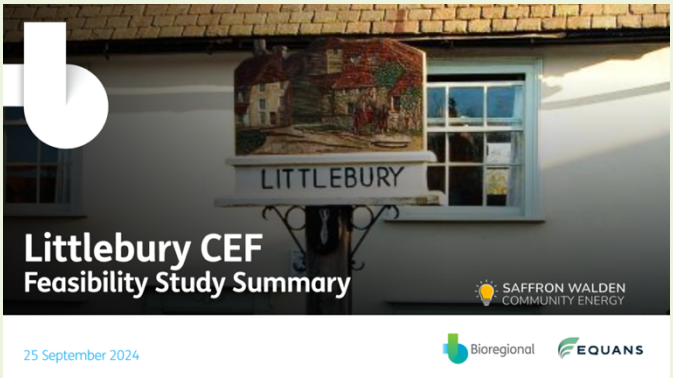
We held a community meeting on Wednesday, 25 September 2024 to present progress on the Littlebury community energy feasibility study. More than 50 people attended including Littlebury Parish Residents/Councillors, Hadstock and Wendens

Littlebury Energy Project at Village Hall - Gordon Ridgewell

"For Littlebury, by Littlebury"

Ambo Eco Groups, and from UDC and Essex County Council. Another 25 people were unable to attend but expressed interest in the results. They heard Bioregional and Equans present progress on their analysis of heating options for the village, a synopsis of this is presented below

Refreshments were served including delicious freshly baked Bakewell Tarts from Littlebury's own Celebrity Masterchef semi-finalist Cliff Parisi.



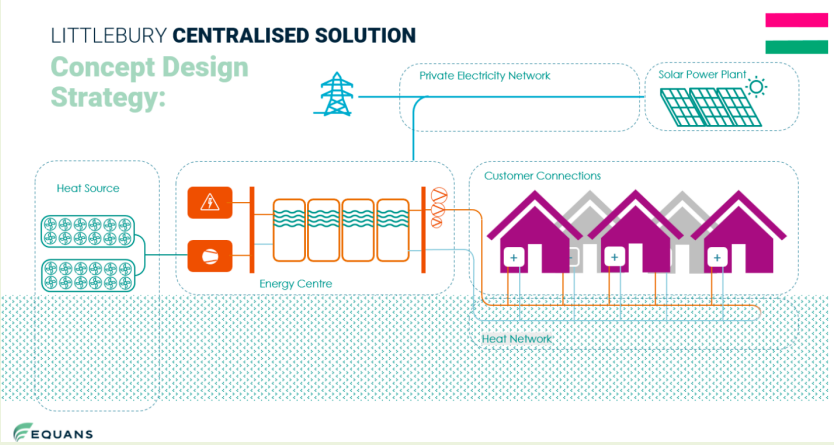
The group presented the challenge:

- **Reducing Carbon Emissions:** the UK wants to reach net zero carbon emissions by 2050. 23% of our overall emissions come from home heating which in Littlebury is largely derived from fossil fuels, chiefly oil.
- **Cost of heating Homes:** The cost of a litre of heating oil more than doubled since 2020. Fossil fuel heating costs are rising in general and face increasing market volatility due to world events. Reducing the energy required to heat your house is one way to protect against price rises. Increasingly, local control of energy such as a district heat network can provide price stability.
- **Historic Buildings:** Littlebury has buildings within the conservation area requiring a bespoke approach to improving energy performance.
- **Delivery Complexity:** One solution that has been used in the UK for many decades is a district heating network, but these have not been widely used in

rural settings. The government continues to support exploring community energy projects such as this one which will investigate possible solutions

The feasibility study is exploring 4 options to decarbonise heating in Littlebury

1. **Do nothing**. This has the reassurance of continuing with systems that we all know but runs the risk of being exposed to ever higher fossil fuel prices over time. We do know that replacement of oil-fired boilers will be phased out, which leaves individuals to find their own solutions.
2. **Individual home retrofit**. This has the advantage of cost savings for the individual as efficient heating systems and building fabric improvements are installed, and government grants are available. However, installation costs can be high individually, cost efficiency variable and retrofitting can be complex in traditional homes. Some properties that are difficult or costly to insulate may be left behind with this approach.



A potential configuration of a District Heat Network for Littlebury with 1.5Mw of ASHP capacity, six 50,000 litre thermal stores and potential 70C flow. A Solar Photovoltaic array could be located remotely to assist running the ASHPs

3. **Community-wide solution:** This involves a local centralised energy centre producing heat with low carbon technologies such as Air Source Heat Pumps (ASHP) and Solar panels, that feeds hot water around a network of pipes through the village to provide both heating and hot water. Individual homes

choose to hook up to the network, or not, but a minimum number would be needed initially to be feasible. People can join later. This solution enables many houses to decarbonise more easily and provides potential savings because the right technologies can be used at scale. It is also better for homes that are difficult to insulate because hotter water can be supplied efficiently compared to the temperatures supplied by most individual ASHPs. This solution has a period of disruption throughout the village but could benefit through economies of scale, and villagers no longer have to maintain or service individual pieces of equipment on their own property (i.e. boiler or ASHP).

4. **A blended solution:** This approach would involve some individual home retrofits while developing a district heat network and would likely result in the highest carbon savings to the greatest number of villagers. It might be needed particularly in Littlebury to deal with specific aspects of the location including the elevation changes across the village and the railway line. Regardless of location, all village homes would be included in this approach.

There were many questions from the audience, and answers were given at the time. We have also collected the questions and will be posting full answers on the website at https://lep.swce.co.uk/feasibility-study-results/ as soon as we can. As we said above, we will also be posting the finalised reports as soon as we can get them and then will be ready to consider the next steps.

Thermal Camera Loan

A quick reminder that with the return of colder temperatures, conditions are beginning to be suitable again for using a thermal camera to identify areas of heat loss in your home. The LEP has thermal cameras available for villagers to borrow. Please contact **Charlotte Dunham on 07969 439666**.

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