

Littlebury Energy Project



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

As a Director of Saffron Walden Community Energy, Jonathan is helping lead the Littlebury Energy Project in the bid to decarbonise the entire village.

In the last issue, you explained about restrictions on energy saving improvements in the Conservation Area and to Listed buildings, plus we heard about the work you were doing on behalf of the LEP, liaising with the powers that be to simplify the consent process. What progress has been made in the last month?

Energy Saving Advice: We have started a new service, advising residents on energy efficiency improvements they can make to their homes when enquiries are made direct to SWCE. We're trying to focus on the trickier properties (like Listed Buildings) but are responding to all enquiries as part of our community effort to help everybody in the drive towards Net Zero.

Energy Efficiency & Listed Buildings: We have made great strides forward with UDC & Historic England on the Littlebury pilot project to simplify the consent process for energy efficiency measures to Listed Buildings. It'll be a long haul, but we're making meaningful progress, so watch this space.

On behalf of the LEP, I have been asked to give a presentation on "Energy Efficiency & Listed Buildings" at a nation-wide webinar run by Community Energy South on 22nd Feb. This should be available to stream on the SWCE website by the time this issue has been delivered.

The Way Forward: We've applied on behalf of the LEP for funding to carry out a feasibility study into the best strategy to decarbonise Littlebury.

We're continuing to work closely with UDC's Climate Change department on upcoming energy efficiency grant funding for all residents and pushing for Uttlesford to lead the way in the drive to Net Zero.

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 (shown above) will be part of SWCE's Open Eco-homes on 16th March.

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

jonathan ashe architects
In association with:  SAFFRON WALDEN
COMMUNITY ENERGY

"For Littlebury, by Littlebury"

Littlebury Energy Project



PULL-OUT SUPPLEMENT

This month, we look at thermal camera imaging to identify where heat is being lost from your house. We also talk to villagers about Air Source Heat Pump (ASHP) heating systems in new and old buildings.

Village Open Day and Open Eco Homes

16th March – 11am to 3pm

Meet several renewable technology providers at the Village Hall
Visit homes with eco & renewable energy installations

Thermal Camera Imaging

A thermal imaging camera provides a way to visualise where your home is losing heat. The camera is ideally used with a large temperature difference between the inside and outside of the house i.e. in winter and shows hot and cold spots as different colours. Imaging from inside and outside provides different views of heat loss - from the inside you are looking for cold spots, whereas from the outside you are concerned with hot spots where heat is leaving the house. LEP has two cameras available for villagers to borrow. Here are some examples of imaging in the village.



On the left is an interior view of a Littlebury thatched cottage showing the effect of closing blinds. There are two windows, one with the blind open giving the blue (cold) colour, while the other to the right of the table lamp has the blind closed and is warm (yellow/orange).



The second image is an example from the interior of another Listed timber framed house showing the insulating effect of secondary double glazing. The window has the secondary glazing half open giving a cold (blue) image on the left.

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

"For Littlebury, by Littlebury"



Air Source Heat Pump - Listed Building Case Study



Charlie Wittich has lived with his wife and 2 children (now teenagers) in a Grade 2 listed 4-bedroom house in the Littlebury Conservation Area since 2009. The house has 3 sections including one from 1560. In 2019 they replaced their oil-fired heating with an ASHP.

Ian Dunham: What motivated your switch to low carbon ASHP system?

Charlie: Our very old boiler needed replacing and oil prices were fluctuating wildly. We also wanted to future proof for if we eventually sell the house. I knew about ASHP technology from my work in property services, and wanted to be part of the solution for future energy.

Ian Dunham: How did you proceed, especially as it is a listed building?

Charlie: We knew it would be complicated because the house is old and leaky. We engaged a company to project manage the overall. We needed to insulate the roof spaces, get an Energy Performance Certificate (EPC), replace existing radiators with new double panel ones, have the electrical consumer unit certified and have UK Power Networks raise the maximum current provided to the house. All these went really smoothly. We also needed Listed Building Consent from the council which eventually delayed installation for 2 months and cost £1000 in charges plus stipulated a screen to hide the ASHP unit while allowing free airflow, despite being hidden in our back garden! **Note:** LEP is working with UDC to achieve smoother and more consistent planning consent for energy saving developments.

Ian Dunham: How does the system work, does it keep the house warm?

Charlie: The system works well. It's set to have hot water on demand & runs 4 heat cycles in winter & 2 in summer. It can be controlled & monitored via a simple app. With secondary double glazing installed in the front (old) part, the house is warm set to run at around 17-19 C in winter or slightly hotter (21 C) for really cold weather.

Ian Dunham: Have there been any other problems?

Charlie: The first ASHP had to be replaced by LG under warranty. The house is old and still not well insulated, so the running costs are higher. The truth is your electricity bill will go up, but we don't regret the change.

"For Littlebury, by Littlebury"



Air Source Heat Pump - New-build Case Study

Cindy White and Malcolm Domb have lived in a recently built three bedroom detached house in Peggys Walk since 2013. Although these well-insulated houses were designed for low carbon heating, the initial prototype ASHPs have been replaced with new models.

Ian Dunham: What was your initial experience with ASHP heating?

Cindy: The original heat pumps were noisy, inefficient, couldn't cope with very cold weather and ours broke down after 2 years. We also had problems with the initial replacement from the same company. This was resolved by replacement with a Grant ASHP installed by LH Cook in 2023.

Ian Dunham: How has that changed the performance?

Cindy: We are pleased with it. It's definitely less noisy. The radiators get hotter and the airing cupboard is warm. It has coped with a cold winter but we are yet to see how much cold it could actually cope with. The running costs still seem reasonable even after the massive rise in electricity bills.

Ian Dunham: How easy is it to manage the system on a daily basis?

Cindy: We have the thermostat set to a constant temperature. If the temperature drops below it, the heating will cut in. We have a thermostat upstairs and downstairs so can set at different temperatures. You can programme it to the temperature that suits you. The water is set to heat up four times a day and briefly overrides the heating.

Overall we're pleased - it's always warm when you walk into our house.

More details on both the ASHP installations featured are available at <https://lep.swce.co.uk/>



News Updates

The Essex Solar Together scheme is open for group discount on solar panels and battery storage at <https://solartogether.co.uk/uttlesford/>

"For Littlebury, by Littlebury"