

## Q&A and Useful Links

# Webinar: Heat Pumps, Solar and Battery for Home and Business: the Basics

### Low Carbon Technology Training Centre

Thank you to speakers Phil Kitchener and Phil Quinn from the Herefordshire Low Carbon Technology Training Centre. Read more about the courses on offer at the centre: <https://hlnc.ac.uk/low-carbon-technology-training-centre-lcttc/>

### Find a Contractor – MCS

Find an MCS certified installer to install your solar PV, heat pump, wind, biomass or solar heating renewable technology <https://mcscertified.com/find-an-installer/>.

### **Q: What typically would you suggest might be gained by cleaning panels once per year or indeed more or less frequently**

A: It's a good idea to monitor the production of the panels over time and this will give an idea of whether there's reduction potentially due to dirty panels. 5%+ loss is probably not unreasonable for dirty panels. The impact depends on how dirty the panels could get - e.g if urban, and near a building site, it might be reasonable to expect a lot of dust to build up. Fouling from bird droppings may also be significant in some locations. Panels should partly self-clean from rain, but this might be less effective on panels at a shallower angle.

### **Q: Are there any systems that will use the solar power to fill in during a power cut?**

A: Usually not for solar alone, but battery systems might allow this

### **Q: Why is using battery power during a power cut more complicated than using it generally?**

A (from attendee): I've been told there's the issue of the grid being live with your electricity while engineers are trying to restore power.

A: Yes that's correct - generation is disabled in a power cut for safety of the line engineers and is a condition of allowing connection to the grid

### **Q: Are there any domestic hydrogen generation options that could be used for storage?**

A: There are emerging solutions but most households would not (yet) have a use for the hydrogen and so it's not efficient to use electricity to create hydrogen to just turn it back into electricity

**Comment from attendee:** When talking to installers, ask to see what the app is like for monitoring and how it might integrate with your smart meter.

**Q: Are air source heat pumps noisy for domestic premises?**

A: Modern ones are very low noise and wouldn't be heard over typical background road noise. Even in quiet areas they are generally not heard by neighbours when they have windows closed. I lived in a house with a heat pump and you soon don't notice it at all.

*Note – also covered in the webinar – see recording*

**Q: Some insurers ask for a maintenance contract to be in place for panels. Are these type of contract necessary?**

A: It's really down to your insurers – if they think it's necessary then it will likely be a condition of your insurance. It's always worth checking with your insurer or reading through your policy documents..

**Q: Is there any good advice about the impact of number of cycles and charging levels on battery life?**

A: Batteries do lose capacity over time and most people notice this with their mobile phones. Domestic batteries have not been around long enough to build a clear picture of degradation. Checking the length and terms of any Warranty or guarantees is recommended. As with any new technology, expect independent consumer groups to key an eye on performance and produce information e.g. [The truth about electric car battery degradation - Which? News](#)

**Q: Are there grants for Air Source Heat pumps? It is a rather large amount with cost.**

A: Domestic: With the recent change of government the future support isn't clear - but the new government has indicated that support will be available in some form going.

[Apply for the Boiler Upgrade Scheme: Overview - GOV.UK](#)

Apply for the Boiler Upgrade Scheme: Overview - GOV.UK

A: Business: Marches Energy Grant

<https://www.marchesgrowthhub.co.uk/support/marches-energy-grant/>

**Q: Was thinking about potential of using hydrogen for central heating?**

A: It might be an option when hydrogen boilers are cost effective. But it's probably in most cases going to be more efficient to store as electricity and pair with a heat pump rather than use electricity to create, store and then burn hydrogen. But some future innovation might change this!

**Q: I've been advised heat pump isn't viable due to age of building. I have solar panels and looking to find a way to store energy rather than sell it for half price back to supplier.**

A: Heat pumps should be possible on most buildings. You may need to improve the fabric and this might be limited if it's a heritage building. I'd suggest it is worth getting an installer to advise further

A (from attendee): I have an old stone cottage, and was originally advised that wouldn't be able to have Air Source Heat Pump, but if done with other measures, it can work.

### **Upcoming webinar**

You may be interested in a webinar coming up in November from Building Sense:

Building Sense on Mon 25 November <https://www.eventbrite.co.uk/e/getting-retrofit-done-well-selecting-and-working-with-contractors-tickets-1044872651227?aff=oddtcreator>

Learn how to find, brief and manage retrofit installers and professionals so you can start your home improvement work with confidence

### **Further sources of information**

[Heat pumps - Centre for Sustainable Energy](#)

[In-depth guide to heat pumps - Energy Saving Trust](#)

[Solar panels: costs, savings and benefits explained - Energy Saving Trust](#)

[Energy storage options explained - Energy Saving Trust](#)

### **Keep in touch**

The webinar was hosted by Herefordshire Council's Greener Footprints Initiative [Home - Herefordshire Zero Carbon and Nature Rich](#)

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