Open Eco Homes 2021 Report

OEH hosts are pathfinder early-adopters who show how their varied retrofit or new-built homes are low carbon, comfortable and healthy. As trusted messengers, they inspire a growing audience to create their own climate-friendly homes, as urgently needed across the UK.

Summary of success

2021 Open Eco Homes were online, because of Covid, with 10 home tours and 6 expert talks:

- 551 participants joined these Zoom events: 96% said it was useful or very useful for them
- 50% said they were new to OEH, so we’re reaching well beyond our regulars
- Videos of these tours and talks have attracted 990 views so far – a significant wider audience
- an estimated 969 tonnes CO2 will be saved by improvements inspired or enabled by this year’s OEH
  - based on participant feedback, saying what they intend as a result with estimated energy savings

Our themes were ‘Getting Started’, encouraging each participant to start improving their home, and ‘Low Cost’, featuring less expensive retrofit examples and actions.

Highlights

In April we were delighted to partner with Cambridge Forum for the Construction Industry, also an important OEH funder. A lunchtime webinar attracted 70 building professionals, who heard from Mark Brinkley about his award-winning self-build and James Smith on his Victorian terrace retrofit, both OEH 2020 highpoints.

In June Warren Pope, Project Manager of RetrofitWorks, Cambridgeshire gave a timely talk on Heat Pump Choices, a topic for anyone wanting low-carbon domestic heating.

Themes for September and October Tours were:

- ‘low-cost’, including DIY, but with plenty of relevance for people planning only to use professionals
- ‘Getting Started’, encouraging and supporting participants to make a start retrofitting their home

Two of the most popular tours were from:

Rachel and Jake, showing their F-rated home to near Passivhaus Standard. In October 2020 they bought a draughty 1960s detached house with poor insulation and an EPC of F. Their epic retrofit to near Passivehaus standard was largely by DIY, while they were both working full-time! The result is beautiful and very inspiring, including a heat pump, Mechanical Ventilation with Heat Recovery (MVHR) and PV (solar electric panels)

“We knew money would be tight and hoped we could earn the money as we went, saving through DIY or with help from family and friends. Jake has been able to do a great deal of the build himself!” – Rachel
Andy Rankin showed his self-built Carbon Positive Family Home. In 2011 Andy was an OEH host in his narrowboat. Since then his family grew, as did the solar business he founded, Midsummer, now recognised as the UK’s Best Renewables Distributor and an OEH sponsor. They were able to self-build a spacious low-carbon home with PV that generates more energy than their highly insulated home uses in total.

"Utterly inspiring" – tour participant

Other homes
Low-cost Retrofit of 1950s Family Home
Edwardian terrace phased retrofit
Learning from PassivHaus Living
Whole house approach - 1960s retrofit
Eco Redevelopment: City Centre Church
DIY 1960s EnerPHit retrofit

Suzie and Ian’s ex-council house, with unexpected low-carbon tips
Tom and Anne’s on-going retrofit, now with solid-wall insulation
Bea described her lessons, living in Cambridge’s first passivhaus
Shaun’s home, now with PV, battery and charging for their EVs
Downing Place Church’s dramatic eco-refurbishment
Wookey’s carefully researched solutions for his largely DIY retrofit

“This is such an impressive, comprehensive & beautiful project!”

Other Talks
Home Ventilation Choices
Carbon emissions in builds & retrofits
Smart Electric Homes
Planning your Retrofit
Home Energy Innovation

Vince House described MVHR and alternatives for healthy air
Low embodied carbon in building projects and the materials
Using PV, batteries and smart controls for low-carbon electricity
Getting started starting with easy-wins or whole house approaches
Mixergy’s smart hot water tank & q-bot’s underfloor insulation robot

“I hadn’t thought about embodied carbon in building much at all and learned a huge amount”

New Resources
‘Take Action’ provides ideas and advice on numerous ways to cut your home’s carbon footprint.
Case Studies of OEH homes have been expanded to give detailed descriptions of 63 varied eco-homes.

Thank you
Many thanks to our funders, staff, host householders, speakers and to all the other volunteers organising and helping run Open Eco Homes. Best wishes to participants inspired by OEH to create their own eco-home!

from: Tom Bragg, Alice Vodden and Alana Sinclair, OEH core team

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Open Eco Homes - an annual project since 2010 of the charity Cambridge Carbon Footprint