Cambridge Carbon Footprint

OPEN eco HOMES

Low budget renovation
with water harvesting at Forest Road



Wed 30 Sept 2026, 7–8pm

Anusha Iyer, with Tom Bragg (Chair) and Nicole D (Support)

Funded by: Cobb Community Foundation; Cambridge City Council; South Cambridgeshire District Council; McCarthy Architectural Design; Mole; Ac

Agenda

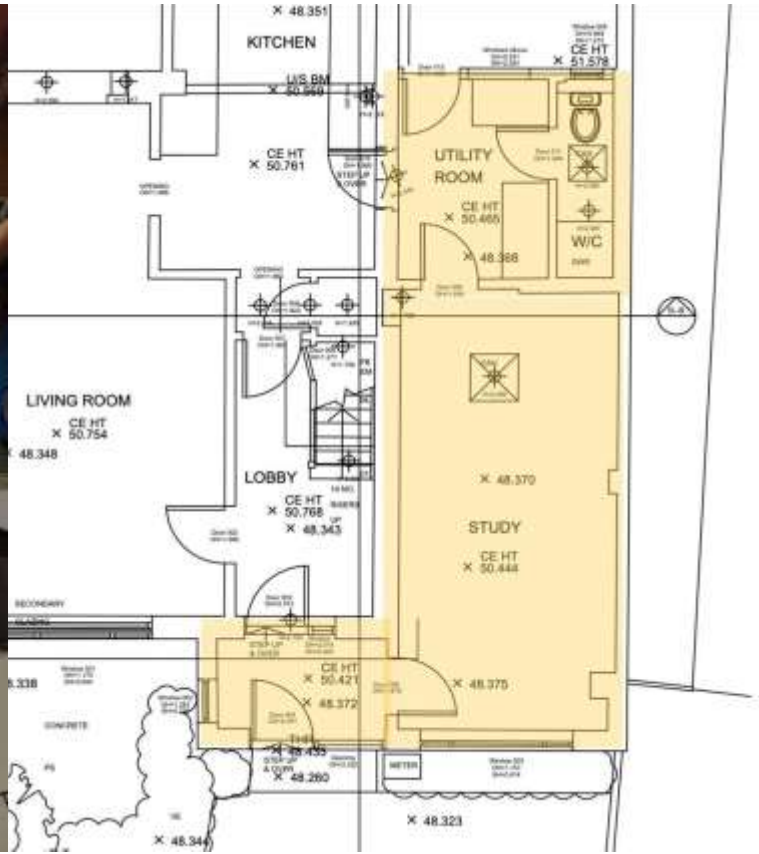
- Intro: 7pm
- Context + Rainwater Harvester + Solar PV *(15 mins)*
- Q&A *(5 mins)*
- Low carbon, low cost + Insulation *(15 mins)*
- Q&A
- Finish: 8pm

Context



- Purchased house in summer 2021
- Project house in need of extensive refurbishment
- Made the house liveable and functional in first 2 years - including solar PV, combi boiler
- After 2 years of contemplation and a collaborative approach in design, renovation commenced in 2025

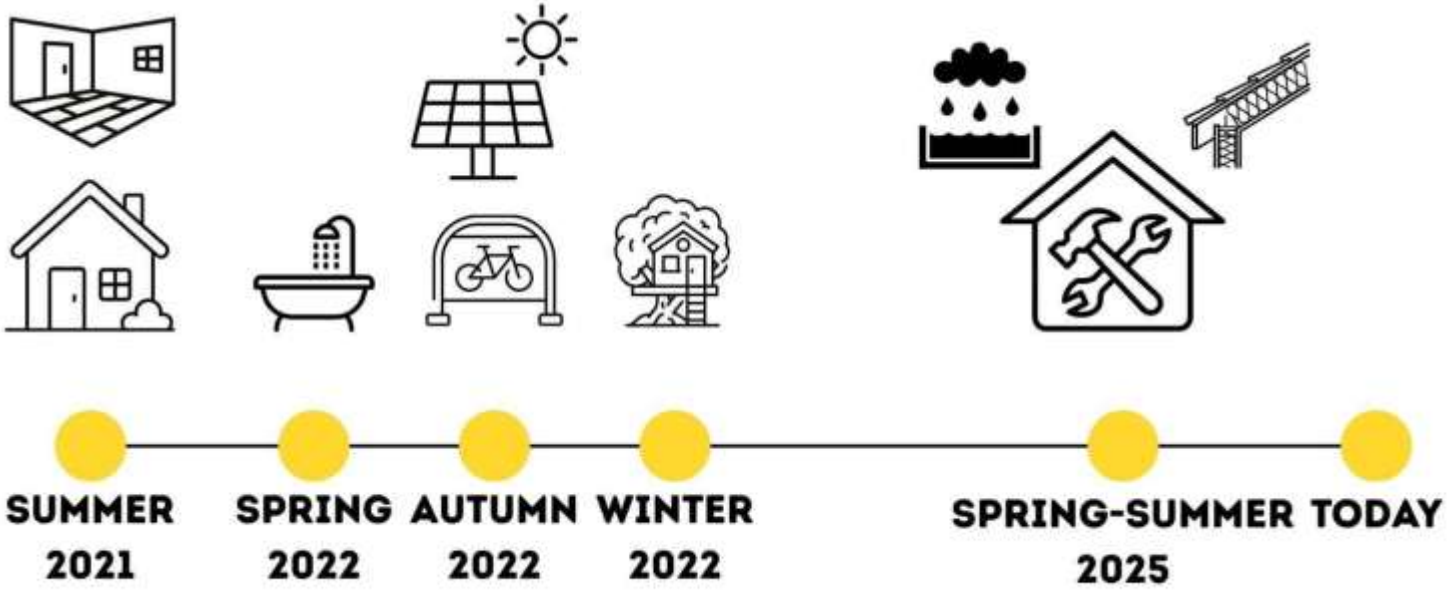




Left: Collaborating with architect and retrofit advisor on design and identifying phases

Right: Phase 1 of renovation now complete

Timeline


SUMMER
2021
SPRING
2022
AUTUMN
2022
WINTER
2022
SPRING-SUMMER
2025
TODAY

Before







Tour



Rainwater Harvester







A 5000 L tank sits in our driveway collecting rainwater from our roofs to wash our clothes and flush toilets downstairs.
Supplier: Rainwater Harvesting https://www.rainwaterharvesting.co.uk/

Rainwater Harvester





Deciding where to site the tank can be an interesting investigative exercise and the design of the tank affects decision.

Rainwater Harvester





Rainwater Harvester





Electrical backup system that draws mains water during droughts

Rainwater Harvester

- Is the RWH drought-proof? No, but we're happy to make use of rainwater whenever possible.
- We also discovered we're over £300+ in credit with Anglian Water due to overpayments.
- Saving money/return on investment wasn't the goal

  Making use of natural resources instead of relying on mains potable water for flushing toilets and reducing surface water flooding was the goal.

Solar PV + battery



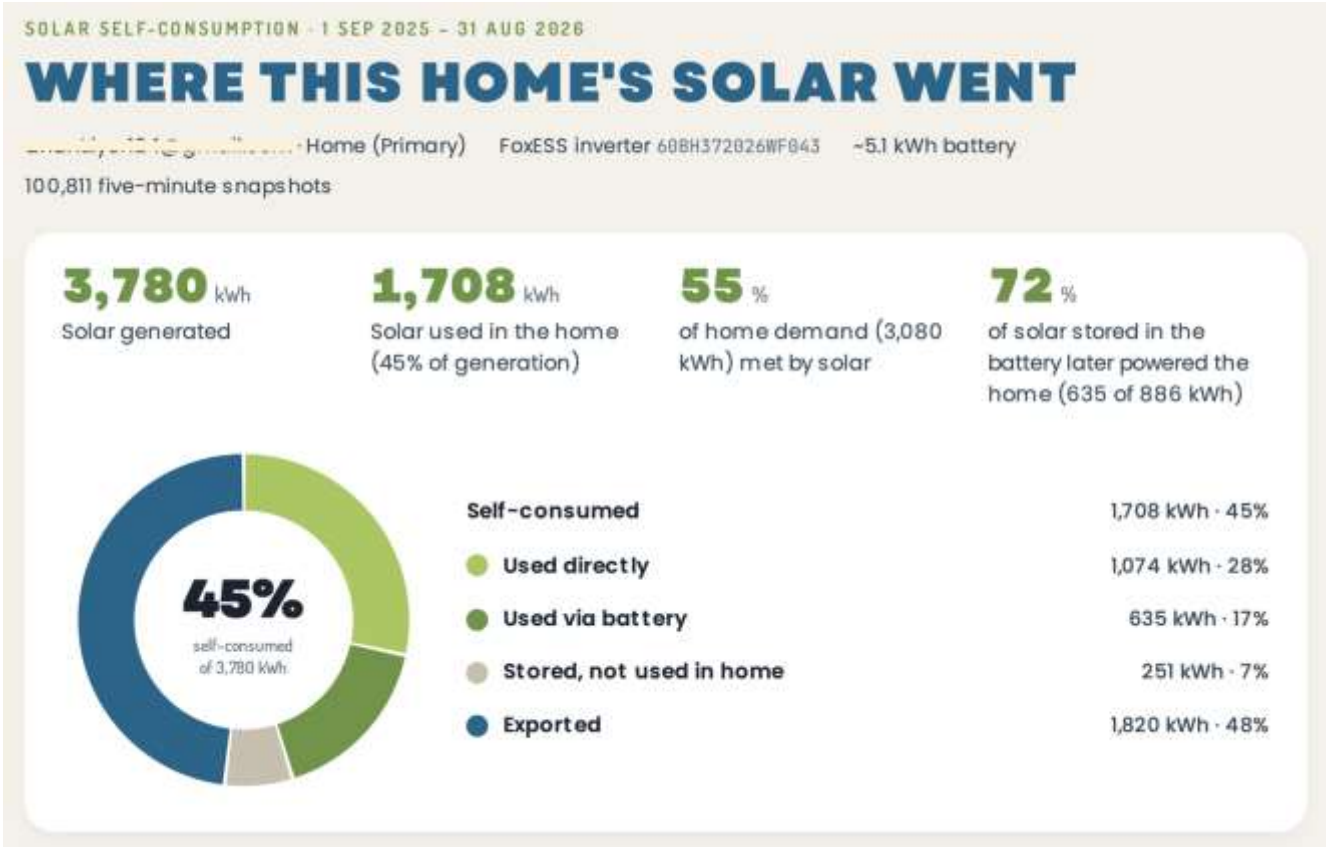
Provider and installer:
Everyone's Energy, through Solar Together scheme
https://everyonesenergy.co.uk/

Solar PV + battery

5kwh battery



Solar PV + battery



Source: Shifter by Decent Energy https://www.decentenergy.io/

Any quick questions?

Coming up:
Low carbon, low cost
Insulation
More info

Low carbon, low cost

Goal: Tread as lightly on earth's resources as possible

- Avoid concrete and cement
- Reuse materials
- Source from second-hand markets (salvage yards, building sites, FB Marketplace, eBay)

Result: Huge savings were made once mindset has shifted - over £8000 saved!

Haven't found a carbon calculator for products sourced to check savings on carbon, not excluding water, energy and minerals, labour, transport!!

Low carbon, low cost



Block paving 38 sqm:
Original cost £1964
Found on FB Marketplace and arranged transport to collect from building site
Total cost £380 (material) + £558 (transport) = £938
Savings: £1000~

Low carbon, low cost



Glazing
Double glazed Velux rooflights (x2)
Original cost each: £1300~
Found on eBay: £400 each

Triple glazed french doors
Original cost: £1500 - 2000 ~
Found through FB Marketplace: £700

Savings: £3000~

Low carbon, low cost



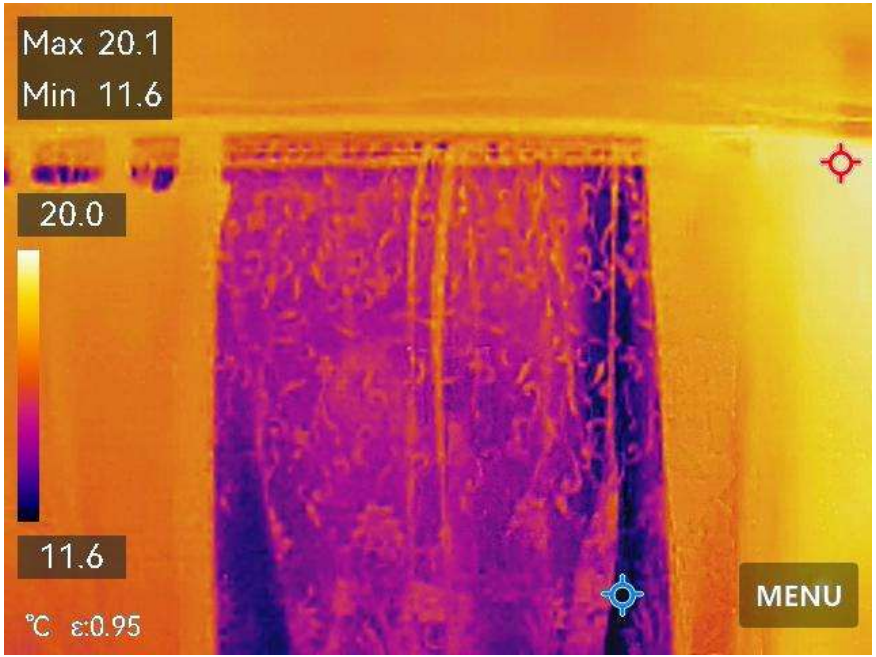
https://www.instagram.com/p/DLm-ne5MxpG/

Tiles, tiling materials, bathroom goods

- Toilets
- Wash basins
- Mixer taps
- Premium designer tiles
- DITRA mat
- Kerakoll tile adhesive
- Grouts

Cost saving: £1772~

Insulation





Insulation



East wall: low profile PIR + mineral wool insulation
South wall: Wood fibre insulation
Roof: Warm roof with PIR



Supplier: Back to Earth
https://www.backtoearth.co.uk/

Insulation

Result: Cosy room
The room has regulated temperature in winter as well as in summer (incl. during heatwaves - it was possible to get by without fans and coolers)

Window, door supplier: VELFAC



Spreading the revolution

Rescued Renovations
(working title)
We're considering setting up a service to design and supply for low-carbon renovations so other homeowners can save on material and fitting costs to divert towards much needed climate adaptation and mitigation measures.

Get in touch to be added to list of interested homeowners:
pickled@anushaiyer.com

Pickled: Preserving Humanity

Systemic behaviour change initiative for mindset shifts through thought-provoking workshops, training and events that help people find the power in their privilege to take meaningful action in the face of a collapsing climate.

Subscribe at https://pickled.org.uk
to hear of workshops and events

Appendix

Result


Secondary glazing
Tarmac driveway


Solar PV + battery
Rainwater harvester
Secure bike shelter
Permeable driveway

Result





Triple glazed door and window

Wood fiber insulation

Result





Retrofit UFH

Insulation throughout

Bamboo flooring

Result





Warm, dry, light and functional space

Good riddance to the dungeon!

Supply list

Bamboo flooring: https://simplybamboo.co.uk/

Retrofit UFH: https://www.nu-heat.co.uk/

Paint: Earth Born clay paint
Wallpaper paste: Earth Born
Wood filler: Osmo

Retailer: https://greenshoppaints.co.uk/

Tile adhesive: Kerakoll (we found 6 bags for £50 from FB Marketplace, but tilers loved working with it and they're environmentally friendly!) https://gb.kerakoll.com/s/gel-adhesives

Questions?

Your next steps

- Find out about grants: see ‘Funding Your Home Retrofit’
- Book another talk or home tour
- Please give your feedback at the end of this talk
- Share your experiences on social media: #OEH2026
- Consider making a donation to CCF

Thank you for your support!