

Pathway zero

“Just do something”

Toby@crewenergy.london



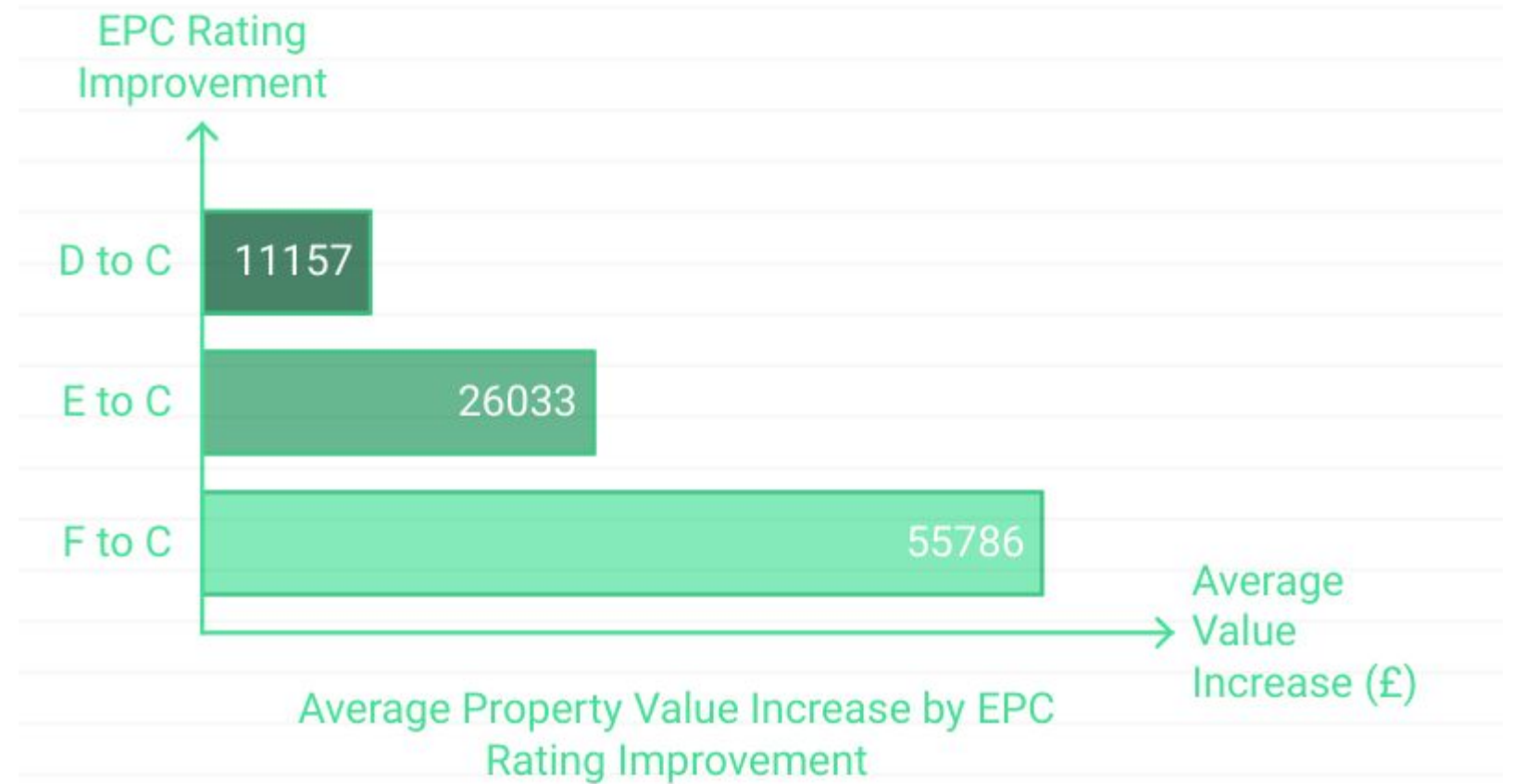
Rightmove Greener Homes Report

80% of current buildings will be inhabited in 2050.

6% of building moved into the a-c rating between 2019-2023

At this rate it will take 43 years to get all properties to SAP C

19% of renters say energy bills are factor in choosing a home.



Your Annual Energy Summary



Your house currently consumes

**3 500
kWh
of electricity**

**15 000
kWh
of gas**

This is equivalent to

**3.43t
tonnes CO₂**

**80
trees**

	Energy Used (kWh)	Annual Spending (£)	Carbon Footprint (Tonnes of CO ₂)
Space Heating	12 000	£ 640	2.24 Tonnes
Hot water	3 000	£163	0.51 Tonnes
Electricity	3 500	£865	0.68 Tonnes
TOTAL	18 500	£1,668	3.43 Tonnes

By implementing energy efficiency measures and moving to renewables you could get down to

**<0.50
Tonnes of CO₂**

Change behaviours and save energy

Walls: 35%

Roof: 25%



Floor: 15%

Windows: 25%

Heat escapes from your home through the roof, walls, floor and windows

Boiler Controls

- Turn down your thermostat 1° savings £84
- Reduce the boiler flow temperatures down to 60° £ 84
- Balance your heating system £67

Appliances

- Don't overfill kettle £30
- Wash at 30° £45
- Turn off appliances £50
- Switch from fan heaters to infrared save 90%

Fabric improvements

- Draw curtains at dusk £117
- Cut down on heat leaks by draught proofing doors and windows £50
- Install a chimney a balloon £40

Lagging

- Lag hot water pipes £60
- Hot water tanks should have 80mm of insulation, if not install at hot water jacket £50
- Radiator foil £40
- Thermal blankets and gilets (Steve lagging)

Energy Efficiency Technologies



SMART RADIATOR VALVES

Smart radiator valves enable to heat different radiators at different times of day to different temperatures, saving 20% on your heating costs.

- **Cost to install:** £240
- **Energy saving pa:** £110 (12.5%)
- **Payback (years)** 2.18 years

• **Cost to install:** £250

• **Energy saving pa:** £88 (10%)

• **Payback (years)** 2.84

SMART THERMOSTAT

Smart thermostats learn heating patterns, understand the fabric of the house and consider outside temperatures when heating the home, saving 10% on heating costs

LED LIGHTING

LED bulbs can be up to 80% more energy efficient than conventional bulbs and last 10x longer.

- **Cost to install:** £36
- **Energy saving pa:** £153
- **Payback (years)** 0.25

Hydromx Heat Transfer Solution



Hydromx

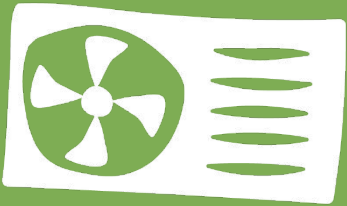
Hydromx is a nanotechnology heat transfer solution which is used to improve the heat transfer within a closed-loop heating system such as a boiler and radiators. This is achieved by reaching the required temperature faster, meaning that the energy required is vastly reduced, therefore saving money and cutting carbon emissions.

- **Cost to install:** £1500
- **Energy saving pa:** £280
- **Payback (years):** 5.35
- **CO2 saved pa:** 0.75 tonnes
- **Boiler life extension saving:** £33 a year

The benefits of Hydromx:

- Reduces heating demand by 20-35% with commensurate carbon savings
- Cuts gas flue emissions, improving air quality
- Warms home quicker 2.4 times quicker
- Installation is quick with minimum disruption.
- Little annual maintenance and extends boiler life
- 20-year warranty protection against corrosion and freezing.

Renewable Energy Options



Implementing renewable energy technologies can eliminate your remaining home energy carbon footprint

SOLAR PV

Solar photovoltaic generates electrical energy from sunlight through an array of panels generally fixed on a south facing sunny roof. The energy can either be used in your home or exported to the National Grid for someone else to use.

Battery storage can also be considered. Here you need to consider the cost of the battery and how many cycles it will last. This will allow you to calculate the cost per cycle and therefore if it is economical for you.

- **Cost of instal:** £5000
- **Energy savings p.a** £607
- **CO2 saved** 0.43 tonnes
- **Payback in year** 8.23 years

- **Consider differential between you tariff and export rate**
- **Could you benefit from a time of use tariff like economy & Octopus' Agile tariff.**

AIR SOURCE HEAT PUMP

Air source heat pumps capture heat that is in the air and concentrate it up to a higher temperature with the use of a refrigerant.

Heat pumps work best when you can reduce the heating load to a minimum and spread the load over a longer period. They therefore work better in well insulated homes with under-floor heating or over sized radiators.

To incentivise householders to make the change, the government has set up the Boiler Upgrade scheme which offers a £7500 grant towards the purchase.

- **Cost to install:** £12.5-15k
- **Energy saving pa:** gas:elec dependent
- **BUS Grant:** £7500
- **CO2 saved pa:** 2.8 tonnes

By moving to a cheaper electricity tariff, the heat pump running costs could become cheaper than gas running costs.

This includes £92 of standing charge for gas. In this scenario, you would be required to swap your gas hob for an electric hob.

Radiant heating options

Infrared heat is a form of radiant heat, similar to the sun. While traditional radiators heat a room through convection heat, far infrared heats people and objects, providing a more efficient and effective way of heating a space.

The sector is pushing for regulatory approval to be considered a renewable heat source with efficiency rates of 250%.

Worth considering in conservation areas, where damp is an issue and for those who living a few rooms in a large house.

Infrared Heating panels

The oldest of the technologies. These panels can be fixed to walls or ceiling.

They heat up to between 100° and 120° and quickly start to beam heat onto room occupants, so heat can be felt within 1-2 minutes

Within 30-40 minutes walls, floors and furniture will start to emit heat and so warm the air temp.

They can be controlled with in-room thermostats and through smart apps

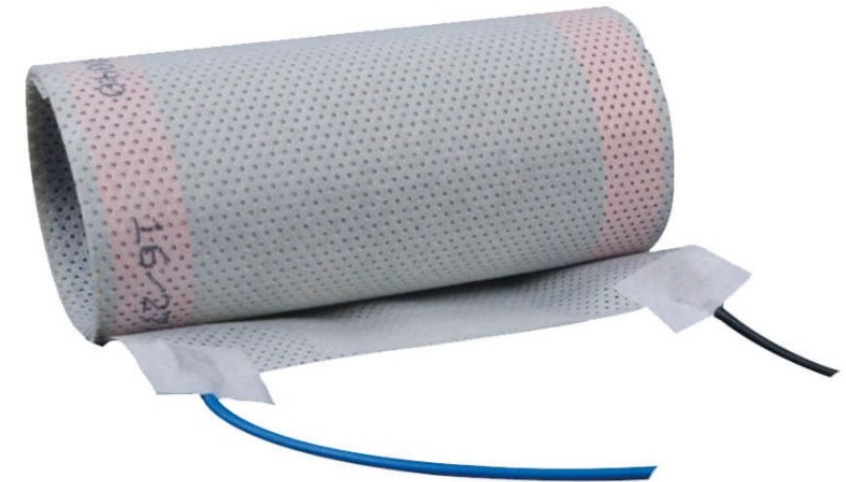
Carbon fibre heat

Works in a similar fashion to IR panels but the surface temperature only rises to 35-40°.

Install in ceilings and sometimes walls. Offering a larger surface area and more even heat.

The rolls are embedded into the ceiling, so are unseen once installed.

Controls can be via thermostats or occupancy sensors.



Our Partner



Home Energy Transformations

Onezero is a company delivering quality **solar, battery and heat pump** technology at scale. Our ambition is to **get homes off of fossil fuels** and **reduce your bills** by making renewable home energy solutions accessible and affordable. We walk customers through the entire process, from your initial proposal, surveys and quote, to booking in the trades and completing your pre and post installation paperwork.

Bottom-up & Community Focused

Our approach to business is bottom-up, working closely with communities in developing **street-by-street strategies** for installations. This involves our team collaborating with local community energy groups (e.g. CREW Energy, Wandsworth) and other actors to identify areas with strong interest in de-carbonising their homes. We choose to use **certified local tradespeople** to keep the money in the local economy and upskill your local workforce.

Putting Homes at the Centre of the Energy System

Once your home is generating and storing electricity, we can begin to work with digital tools to maximise your benefits. How? This is achieved by coordinating your system with the grid's intermittency and by aggregating and managing your system as part of a local, distributed energy resource. The results can be outstanding!

Grants

Great British Insulation Scheme

The scheme provides free or cheaper insulation to eligible households including homeowners, landlords and tenants. The scheme covers cavity wall and loft insulation only. Energy Supplier lead process.

Eligibility:

- EPC rating D-G
- Council Tax band A-D
- Household income/ Income support

Warm Homes Grant

The scheme providing funding for renewable heat and energy efficiency measures. Launches in April 2025. LA lead grant scheme. GLA has bid for \$600m of funding over 3 years. Up to £30k of funding.

Eligibility:

- One of : IMD eligible postcode/ Income support/ Income under £36k
- Landlords: 1 property only. 50% match funding.
- EPC rating D-G

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@crewenergyldn

www.crewenergy.london

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