**Enginuity COP26 House**

**Still needs to be translated –**

Refund

Place the item you want to refund in the machine to the side of me, then click the button below to get a refund.

Select your option –

Roof Insulation £50 per SQm2

Cavity Wall £60 per SQm2

Double Glazing £30 per pane

Select your option –

LED Light Bulb - £20 per bulb

Solar Panels - £205 per panel

Select your option –

Heat Pump - £2,500

Condensing Boiler - £1,500

LED Bulb £20 per bulb +8 EPC Rating

Roof Insulation £50 per SQm2 +11 EPC Rating

Cavity Wall £60 per SQm2 + 9 EPC Rating

Double Glazing £30 per pane + 12 EPC Rating

Solar Panel £205 per panel +15 EPC Rating

Condensing Boiler £1,500 +9 EPC Rating

Heat Pump £2,500 +15 EPC Rating

Information –

An EPC rating is the score given to all homes to indicate how energy efficient they are, it stands for Energy Performance Certificate. Installing energy saving solutions will boost your score.

Domestic Energy Assessor –

I am the Domestic Energy Assessor, press the button to find out your current energy rating. I have to be very thorough and pay attention to detail. I also need to have good knowledge of engineering, maths, science, and technology.

Survey

Budget

Heat Pump/Condensing Boiler

Upgrading a traditional boiler to a condensing boiler, or swapping it out for a heat pump, is far more efficient. But this can be expensive. Head to the van to see the prices for these options.

Hydrogen Information –

Hydrogen boilers look almost identical to present day gas boilers and are also installed in pretty much the same way. Like gas boilers, they would be connected to the gas mains and hydrogen would be fed to them from there.

Natural gas is a major contributor to carbon emissions. Low carbon alternatives such as hydrogen will replace natural gas in the coming years.

Heat Pump Information –

The first electricity-generating wind turbine was a battery charging machine installed in July 1887 by Scottish academic James Blyth to light his holiday home in Marykirk, Scotland.

In 1878 the world’s first hydroelectric power scheme was developed at Cragside in Northumberland, England by William George Armstrong. It was used to power a single arc lamp in his art gallery.

By reducing electricity use in our homes, power stations generate less, so they burn smaller amounts of coal and gas. This means they release less carbon into the atmosphere which helps to make our planet greener.

If you replace all the bulbs in your home with LED lights, you could reduce your carbon dioxide emissions by up to 40kg a year. This is equivalent to the carbon dioxide emitted by driving your family car around 140 miles.

Lighting makes up 15% of the average UK household electricity consumption, so switching to low energy lighting saves households money too.

Wire up the lights by climbing the ladder

ON OFF

Insulation Information –

Different materials are used for insulation, but generally good insulators consist of products that have a structure similar to wool which traps tiny pockets of air. Spray foam solutions can be used for roof tiles as it fills gaps, and adhesive strips can be used around windows and doors. You can also use sealants to stop draughts through cracks and gaps.

Fabrics like cotton and hemp are great insulators too, which means that having thick curtains will help provide a well-insulated home.

Renewable Energy Information –

Renewable energy generated by wind, sunlight, water, and wood made up 42% of the UK’s electricity last year compared with 41% generated from gas and coal plants together. The balance towards increased use of renewables is likely to shift even further as we work together to decarbonise our planet.

Windows and Double Glazing –

In an average sized home windows take up around 10% of the homes wall space.

It is recommended that you replace your windows every 20 years, to ensure your home is as energy efficient as it can be.

Double Glazing Challenge

Roof Insulation Challenge

Solar Panel Challenge

Solar Energy Information –

You can generate energy together with your local community with a solar garden.

Solar gardens - or shared renewable energy plants - can generate electricity that's shared around a community, which means that you don't need to have the panels installed on your property.

The sun shines brighter on the Sahara Desert than anywhere else on Earth, covering roughly 1% of it in solar panels could meet the electricity requirements of everyone on Earth.

If we covered a small fraction of the Sahara Desert with photovoltaic cells, we could generate all of the world's electricity requirements.