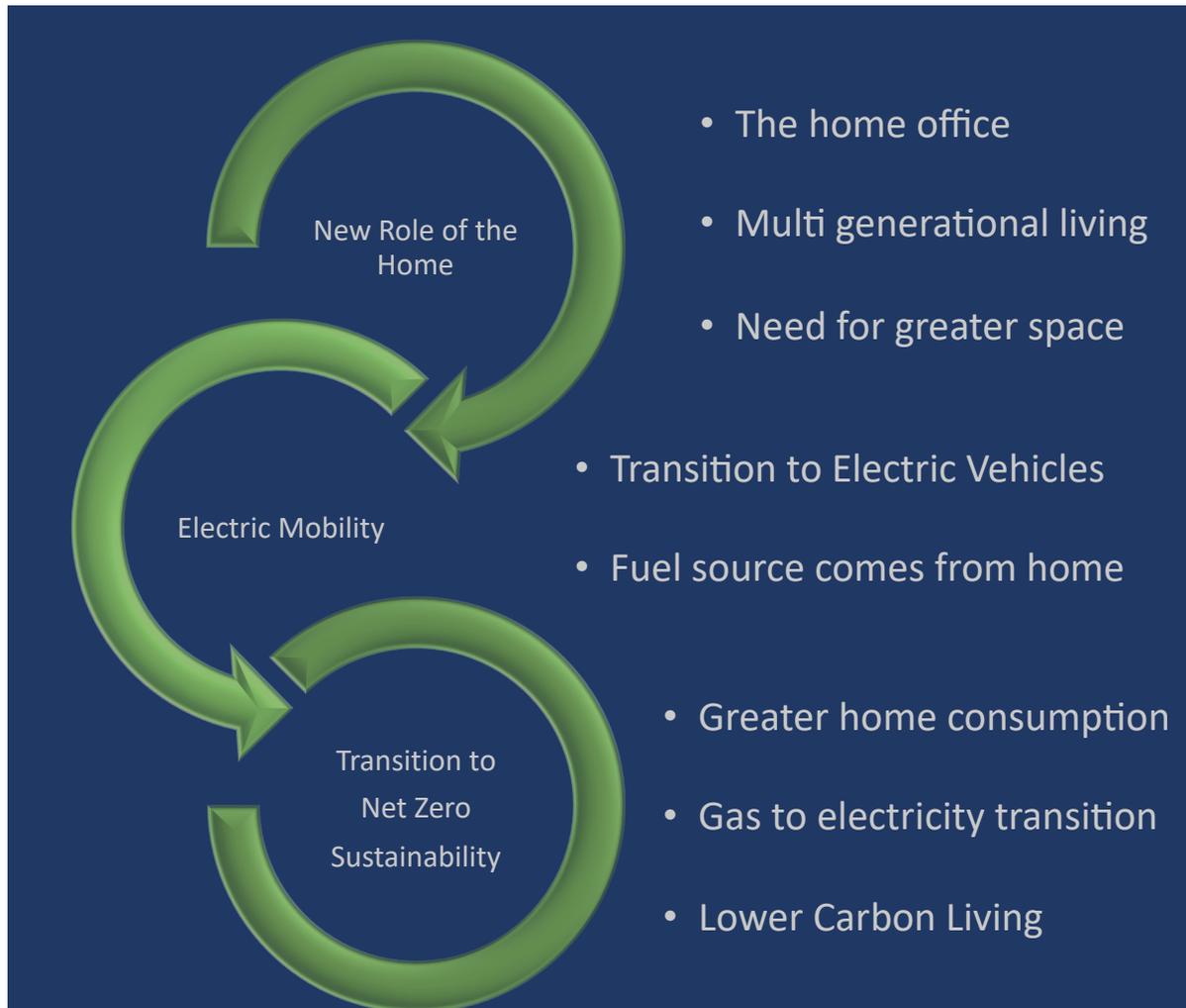


Neutral Home

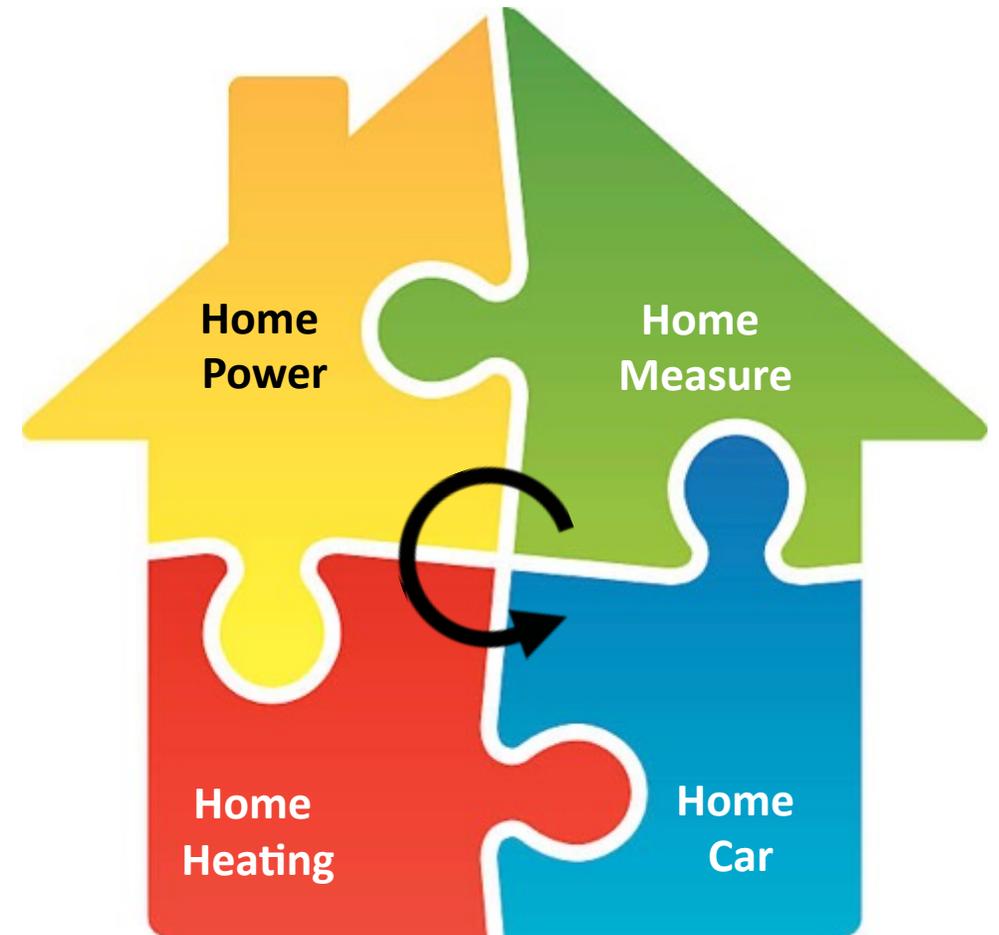
Taking Back Control of Energy

November 2022

Energy bills have spiraled out of control...



...requiring joined up thinking in the home



We have learnt by doing

90mm External Wall Insulation



Voltage Optimizer



Triple Glazing



Smart Tariffs

7th December 2019 39m 8th December 2019

Period	Price (inc. VAT)
00:00 - 00:30	1.52 p/kWh
00:30 - 01:00	1.76 p/kWh
01:00 - 01:30	-0.92 p/kWh
01:30 - 02:00	-1.10 p/kWh
02:00 - 02:30	-1.12 p/kWh
02:30 - 03:00	-1.72 p/kWh
03:00 - 03:30	-1.10 p/kWh
03:30 - 04:00	-1.12 p/kWh

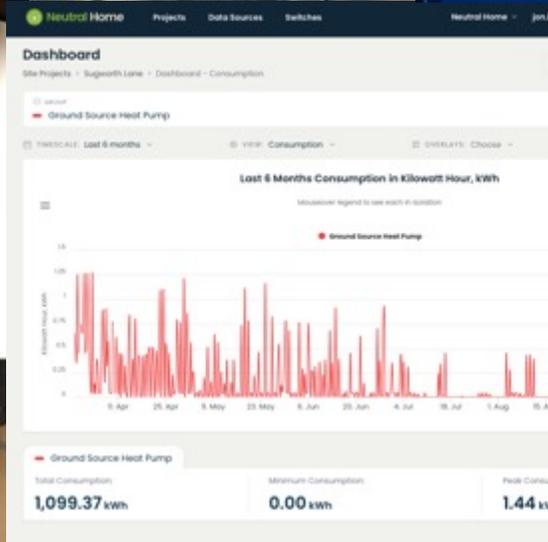
Ground Source Heat Pump



16 kW Solar Array



22 kWh Battery Storage



Energy Monitoring



Car to Home Trial



- Your project goals
- Baseline measurement
- Thermal imaging
- Solution design reviews
- Energy modelling
- Firm vendor quotes
- Financial case

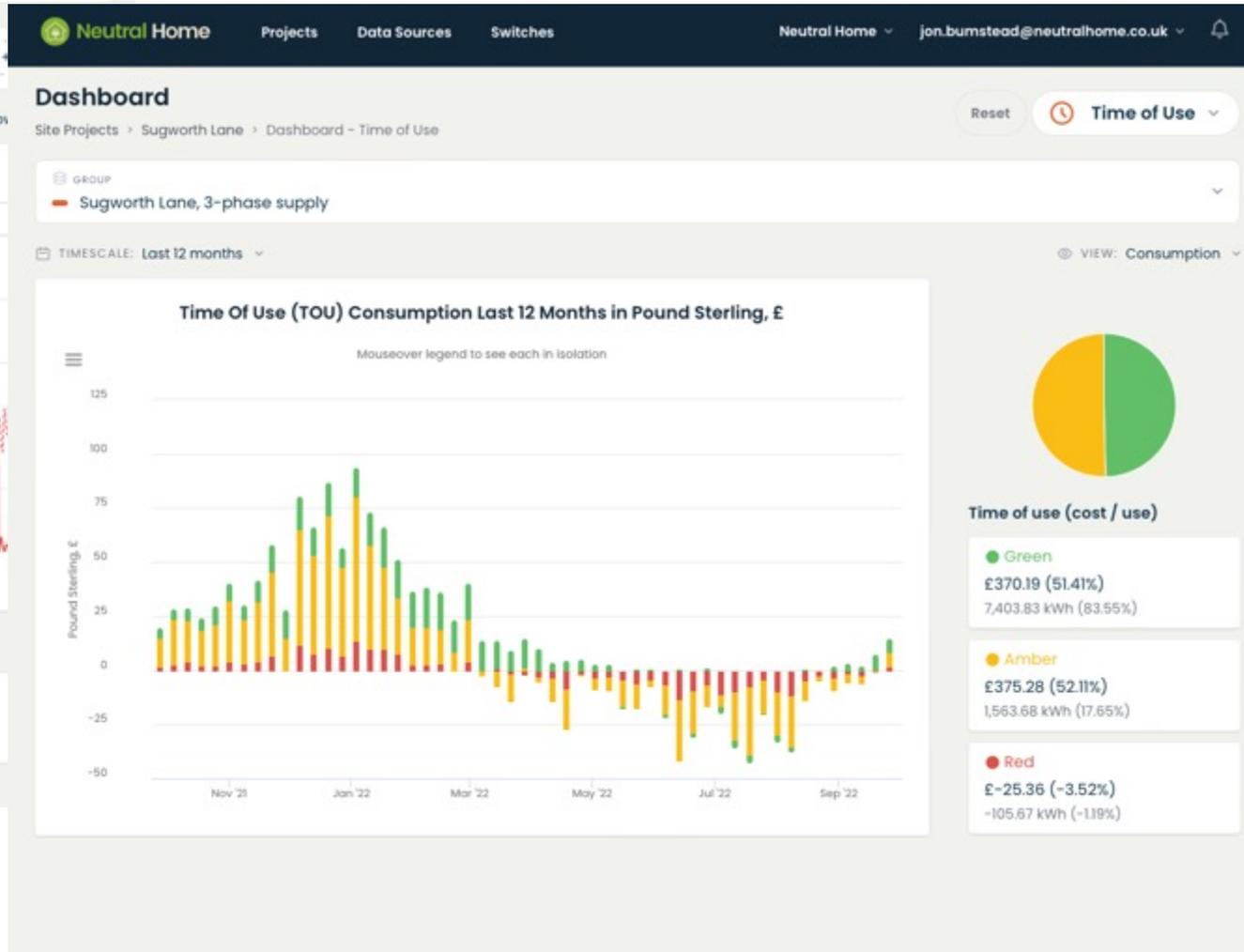
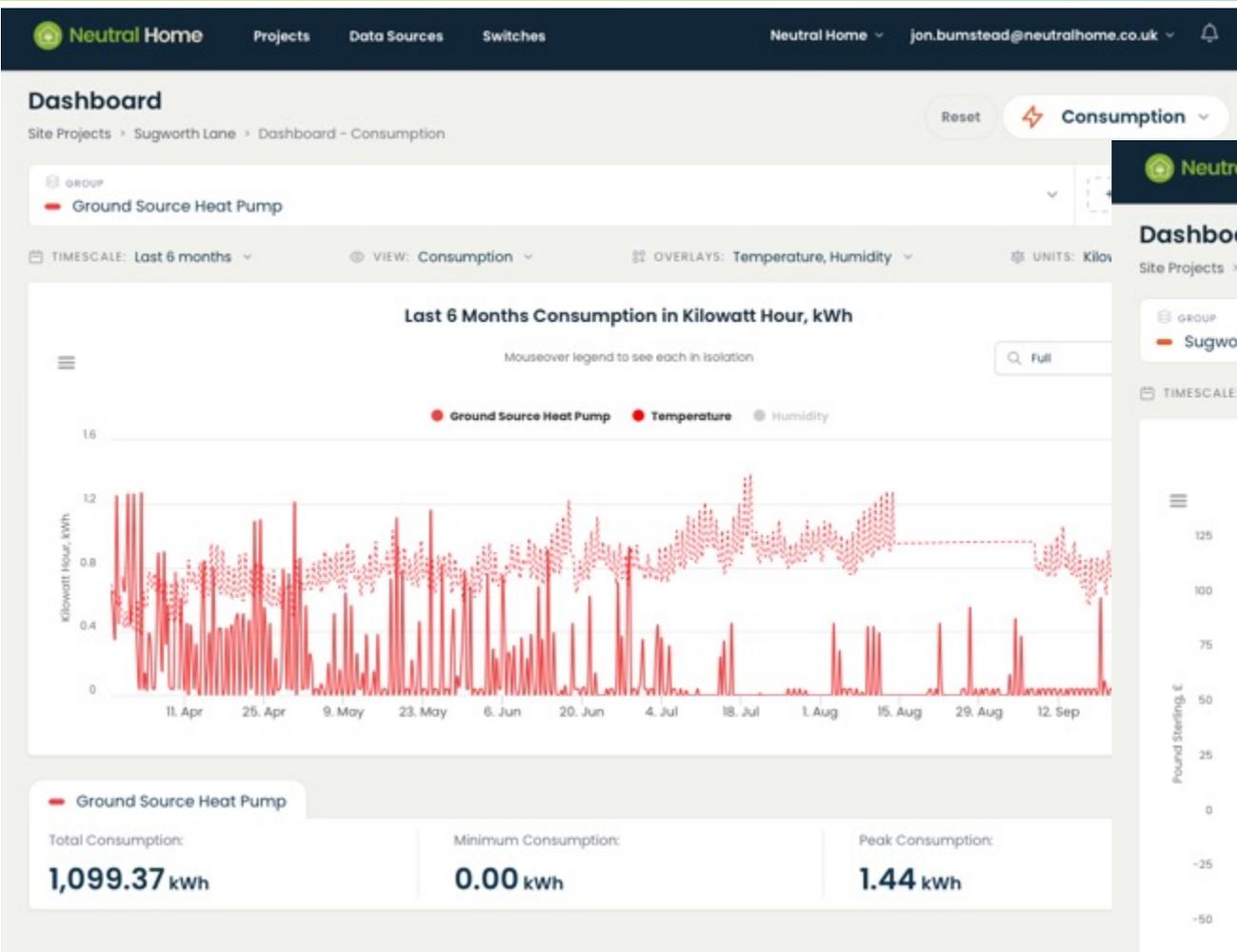


- Phased delivery planning
- Manage Implementation/Partner Delivery
- Design adaption
- Solution commissioning
- MCS/RHI certification
- Sign off



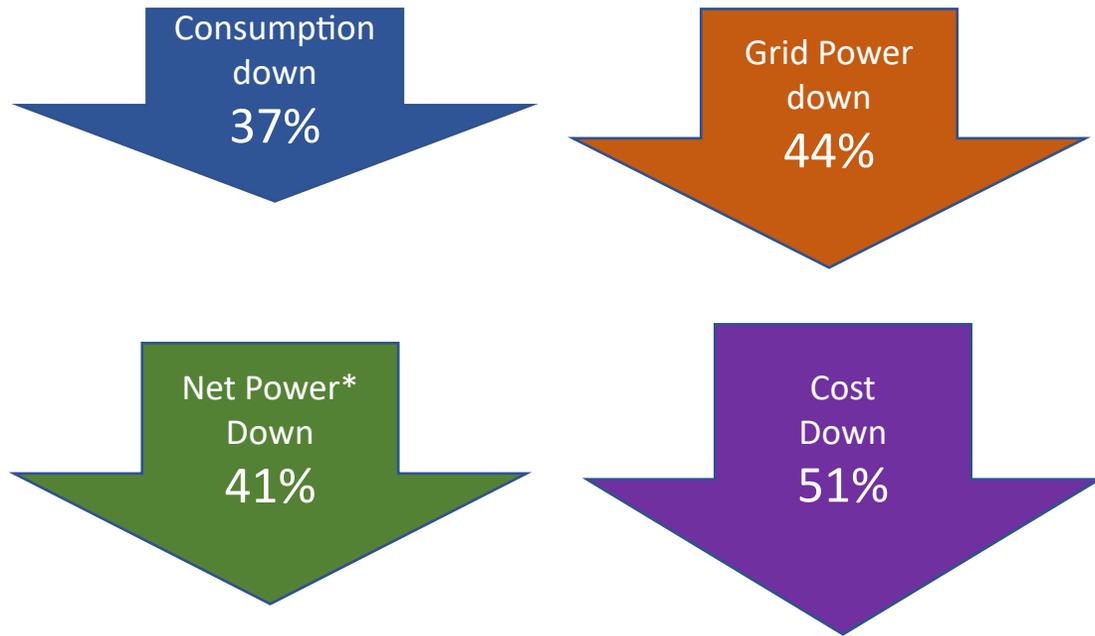
- Support & warranty
- Remote energy monitoring/benchmarking
- Seasonal energy parameter setting/optimization
- Results versus the design targets
- Next generation technologies







End October YTD 2022 (Ten Months) vrs Base Year (2020)



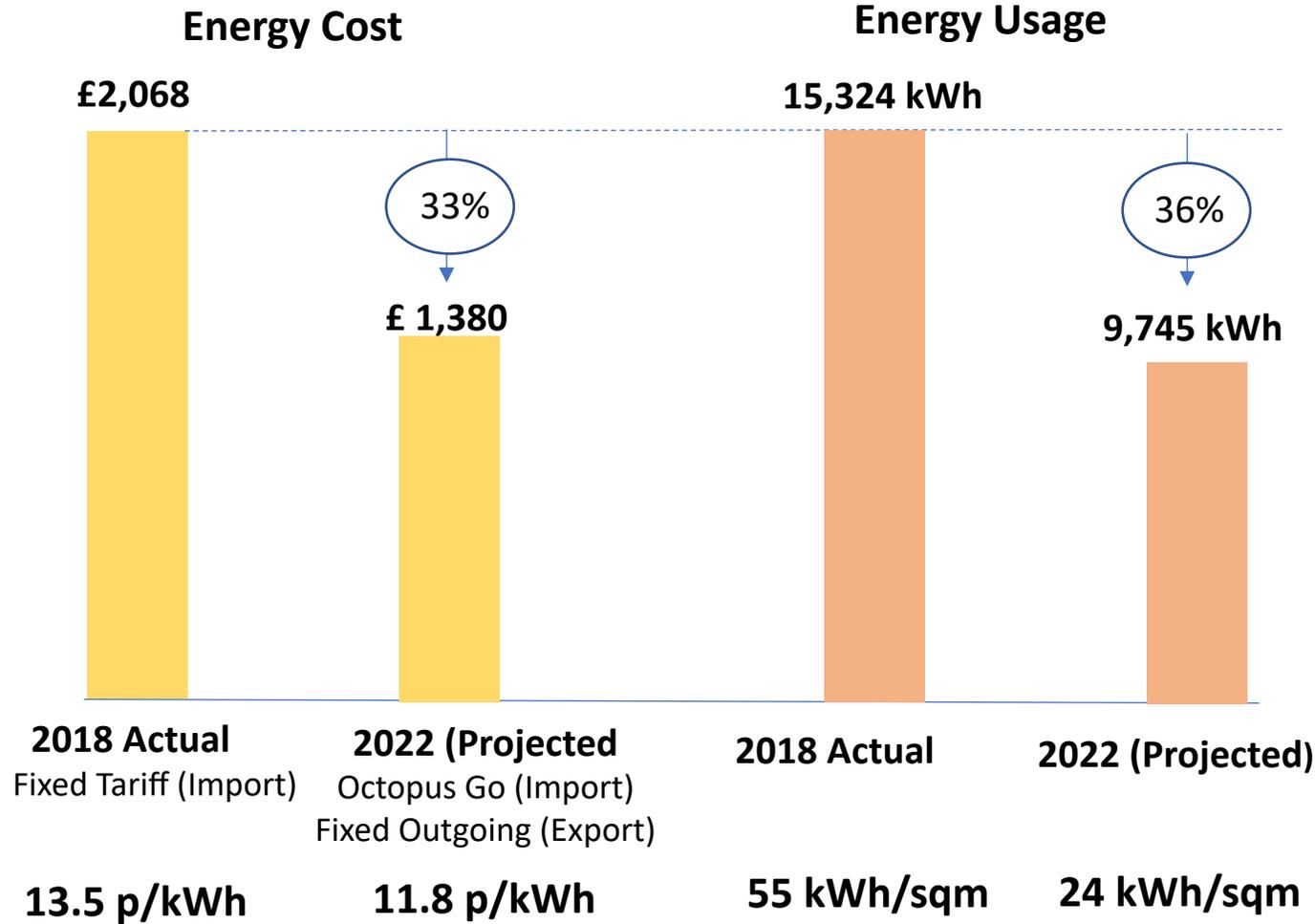
*Import less Exported Power

Import costs less Export Rebates

Climatic adjustment versus base year 2020:

- Oct YTD 2022 3% warmer than Oct YTD 2020 (degree days)
- Oct YTD 2022 4% less solar generation than Oct YTD 2020

Comparison: Pre versus Post House Transformation



- Take back control of energy, its time to act
- Insulate your property now
- Study your energy data, put it in context, and understand your base-loads and where your quick wins are
- Take the ten-year view to see the full potential
- The integrated approach is the optimal approach (Consider your home and cars together)
- Technologies have great potential but require strong orchestration to get the results
- You can halve your energy bills at least and get a respectable return on your investment
- You can stabilize the cost of your energy in the future

Our people

Neutral Home was set up by people with many years' experience in energy monitoring and efficiency, technology development and Equality, Diversity and Inclusivity.



Jon Bumstead
Commercial Director

[Learn more](#) +



Louis Notley
Managing Director

[Learn more](#) +



Anuja Saunders
EDI Director

[Learn more](#) +



Gary Highton
Technical Director

[Learn more](#) +

Jon.Bumstead@neutralhome.co.uk

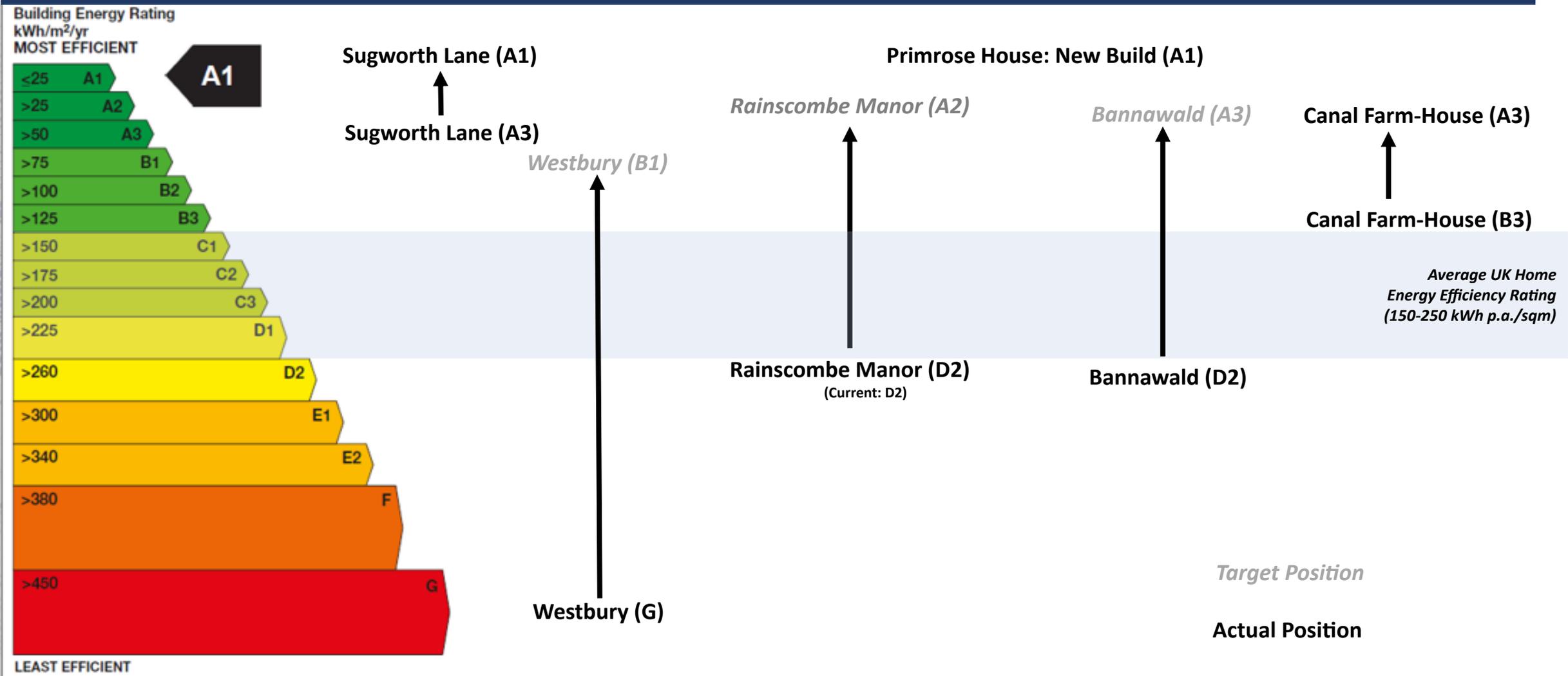
Tel: 07767 867536

Or visit us

www.neutralhome.co.uk



NZEB Energy Rating Scale: Energy Efficiency



Home owners receive a barrage of confusing information from companies who want to sell point solutions

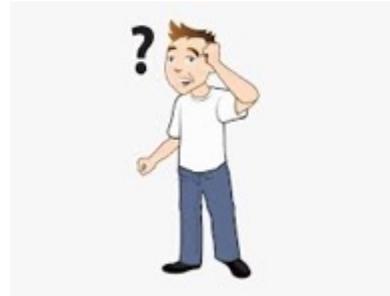


Solar Panel Mis-selling



£1.5BILLION green housing scheme collapses in just 6 months due to rushing claims

Green Grants Fiasco



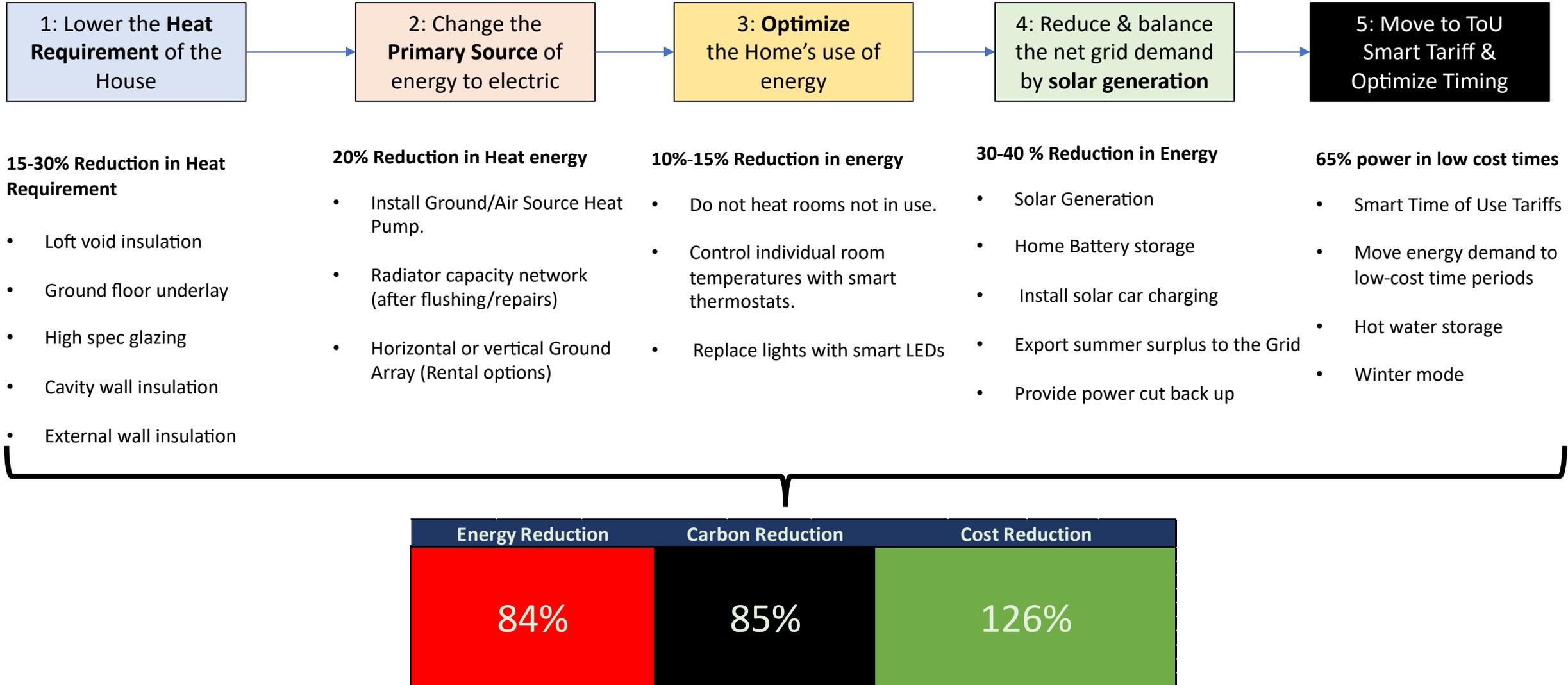
- ***Why net zero ?***
- ***Where to start ?***
- ***What to do ?***
- ***Who to trust ?***
- ***How much to pay ?***
- ***Will it save money?***



Energy Deal Switching !



"Smart" Meter Debacle



Project 1: Future Proof a 325sqm Property



Status/Results:

- All Electric Power (inc car)
- Zero emission property
- 50% expansion in space
- 56% reduction in energy cost
- ROI: 7%

Project 2: Deliver to a fixed budget/ROI



Status/Results:

- Energy Monitoring
- Retrofit Insulation
- Solar & Battery
- Electric cars
- TOU Tariffs
- 51% reduction in energy cost
- ROI: 26%

Project 3: 100% Clean New Build 350 sqm Property



Status/Results:

- All Electric Power (Inc Electric Vehicle)
- Highly Insulation fabric
- Innovative Solar Tile Roof
- 22 kWh Battery Storage
- Modelled 90% cost reduction
- Five year payback

Project 4: Retrofit a Highly Inefficient Edwardian House



Status/Results:

- 100% Renewable Goal
- £ 6,000 p.a. energy bill
- Replace Oil Heating with GSHP
- Insulation upgrade
- Solar/Storage
- Modelled 75% cost reduction target



Tariff: Octopus Super Green
 Grid Import: 92 kWh
 Average cost/ kWh 15.5p/kWh
Daily Cost £ 14.26

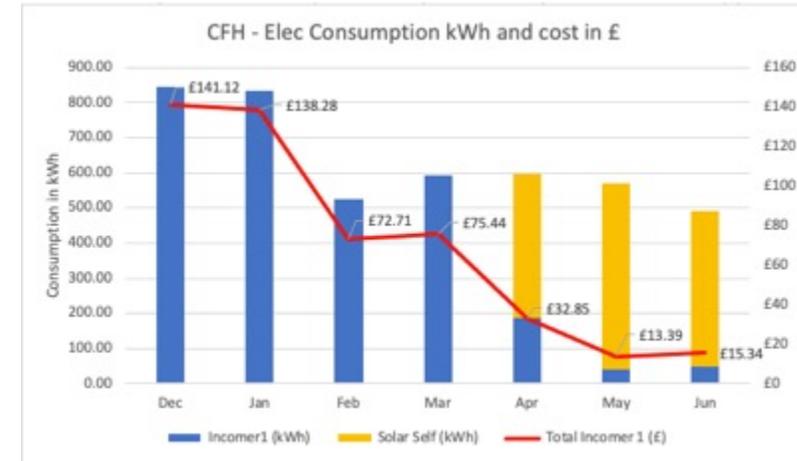


Tariff: Octopus Go
 Grid Import: 70 kWh
 Average cost/ kWh 10.82p/kWh
Daily Cost £ 7.67



The detailed electricity sub-metering enabled planning and monitoring of other retrofit technologies:

- 25 solar panels (9.3 kWp)
- SolarEdge + optimisers
- 10 kWh home battery
- T-Smart hot water controller



In the 2 months after monitoring was installed consumption fell 33%, saving £130.

In the 3 months after solar and battery installation electricity costs fell by a further 69% to an average of £20.50 per month.





There's much to do before Canal Farm House can lose its gas central heating:

- Attics
- Windows, doors
- Chimneys
- Even a cat flap!

