



Energy Advisor Training



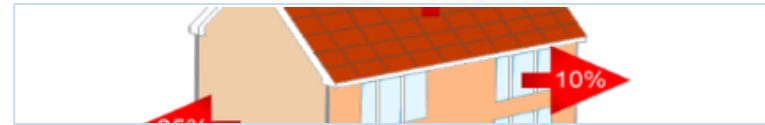
GROUNDWORK
CHANGING PLACES CHANGING LIVES

> Today's Training

Thermal Imaging Intro



Reducing Energy Bills



Renewable Energy



Further Information



> Thermal Imaging

Book equipment

Contact Camera Host

Advertise

Collect equipment

Do surveys

[Resources](#)

> Camera Host

What you'll find in this box:

1x Flir One Pro

1x Flir One Edge Pro

2x camera charging cables

1x power bank

1x power bank charging cable

4x hi-vis vests

1x thermal imaging guide



FLIR ONE

Thermal Camera for Smartphones

Group Thermal Imaging Data Sheet

Please use this sheet to tally your group's survey data. Then, when you return the equipment, please use the Form which you will be sent to submit the data. This means we can see how useful the equipment is to report back to our funders.

No. of homes surveyed	
Postcode areas surveyed	
Type of home	
Owned	
Rented	
Community building (please state, e.g. school, village hall, church)	
Type of building	
Detached	
Semi detached	
Terraced	
Bungalow	
Flat	
Other (please state)	
Approx. Age of Properties	
Built pre-1900	
Built 1900 – 1929	
Built 1930 – 1982	
Built 1983 – 2011	
Built 2012 onwards	
Households signposted to...	
Warm Homes Suffolk	
Energy Saving Trust/Centre for Sustainable Energy	
Suffolk Loft Insulation Offer	
Households taking action to improve their homes	
Total	
Loft insulation	
Radiator reflector foil	
Draught excluders (e.g. chimney, letterbox)	
Thermal film	

> Using the cameras



> Purpose of this training

To enable you to give basic guidance and signpost people whose homes have been surveyed during the Keep the Heat thermal imaging project.

At the end you will be able to give simple advice about reducing energy bills, improving the energy efficiency of homes, renewable energy options and where to find help, more information and funding.



Suffolk's Environmental Commitments and Actions

The challenge



4.75 million tonnes

The CO₂(e) emissions across the county of Suffolk in 2021, according to the Department for Energy Security and Net Zero.



1.5°C

The limit of global temperature rise beyond which we risk triggering dangerous climate change.



Timeline

It is now more likely than not that we will pass the critical 1.5C global warming threshold within the next few years.



Net zero 2030

Aspiration to make the county of Suffolk net zero by 2030.

Sector goals and actions



Collaborative Action



Sustainable Homes



Low Carbon Transport



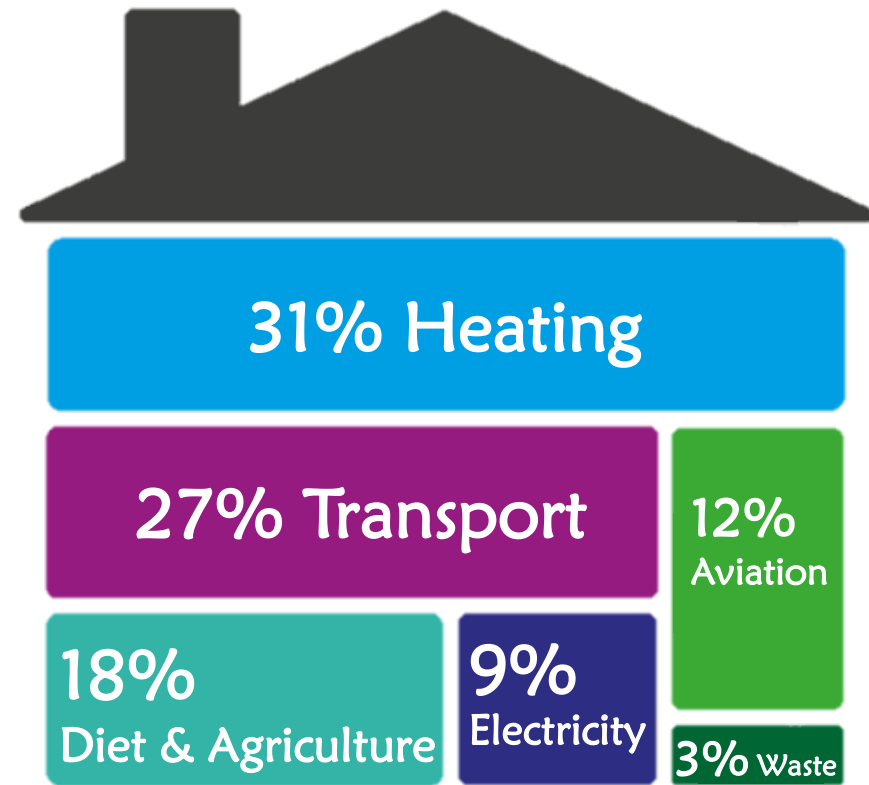
Industrial and Commercial Energy Use



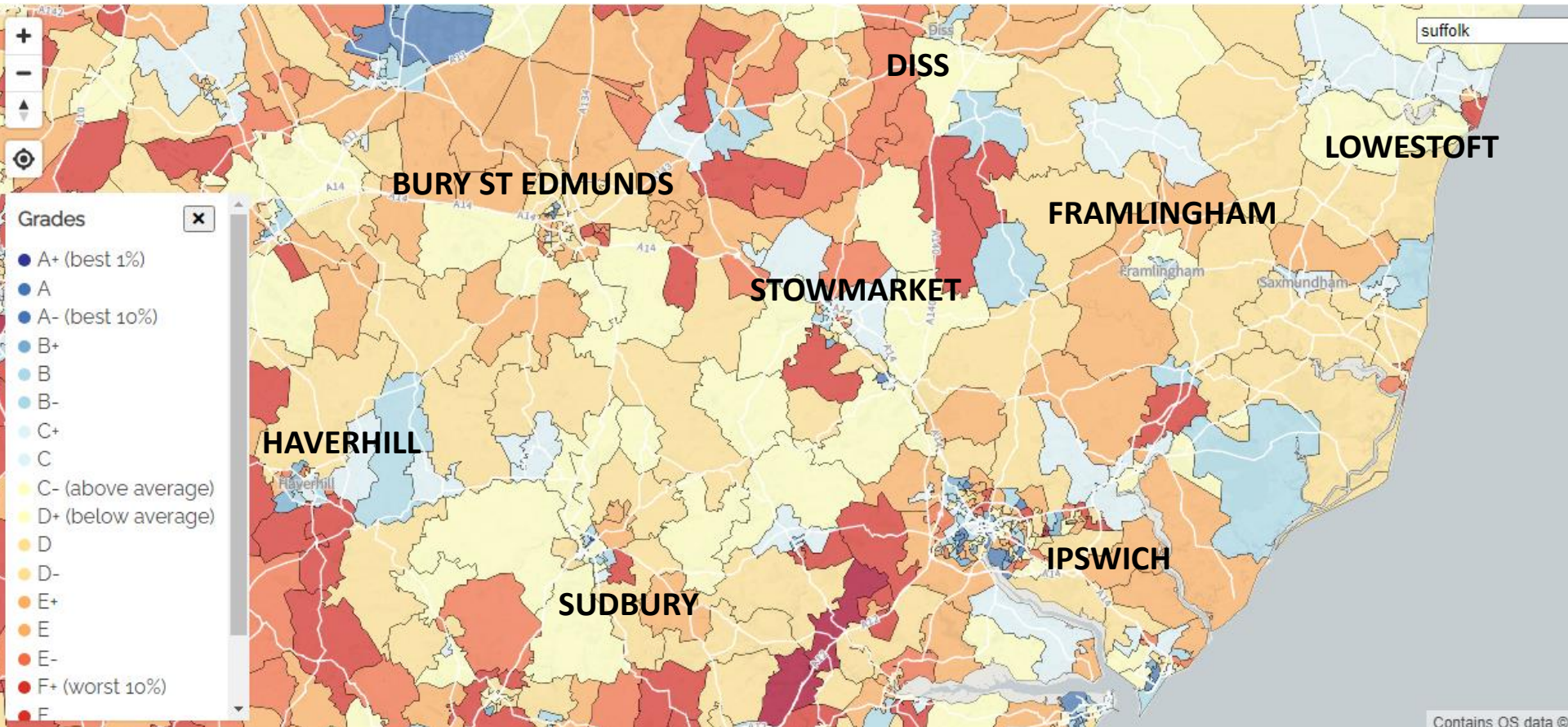
Cleaner Power

> Carbon Footprint

- UK average: 10 tonnes of CO₂e per year
- 2030 target: 4.5 tonnes of CO₂e per year
- 40% of the UK's emissions come from households



> Suffolk Carbon Footprints



> Reducing Energy Saves Carbon and Money

- Insulation
- Draught-proofing
- Heating system improvements
- Renewables

Energy efficiency measures have already saved the average British household about £1,000 a year in energy bills



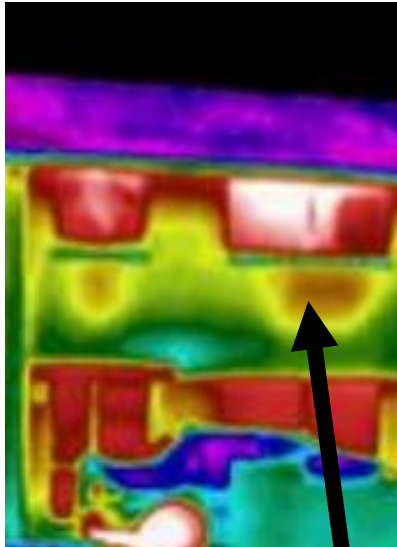
Improving a home's energy efficiency can reduce heating bills by up to 20% or more

> Insulation

- Typically, 30-35% of heat will be lost through uninsulated walls and 25% through an uninsulated roof.
- Insulation helps keep heat in during the colder months and out in the summer

> Insulation > DIY

Insulation reduces the amount of heat lost, so you spend less money heating water up, and hot water stays hotter for longer.



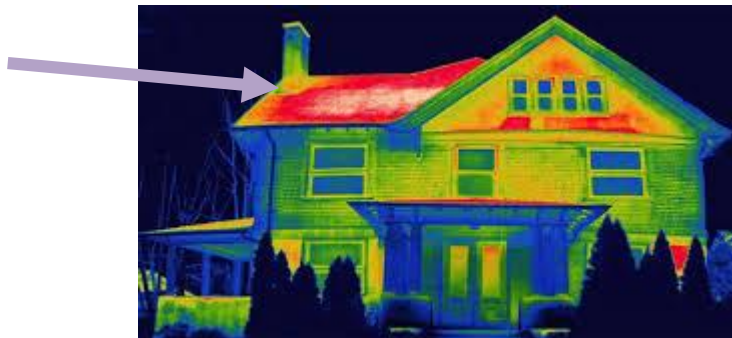
~£15



~£10

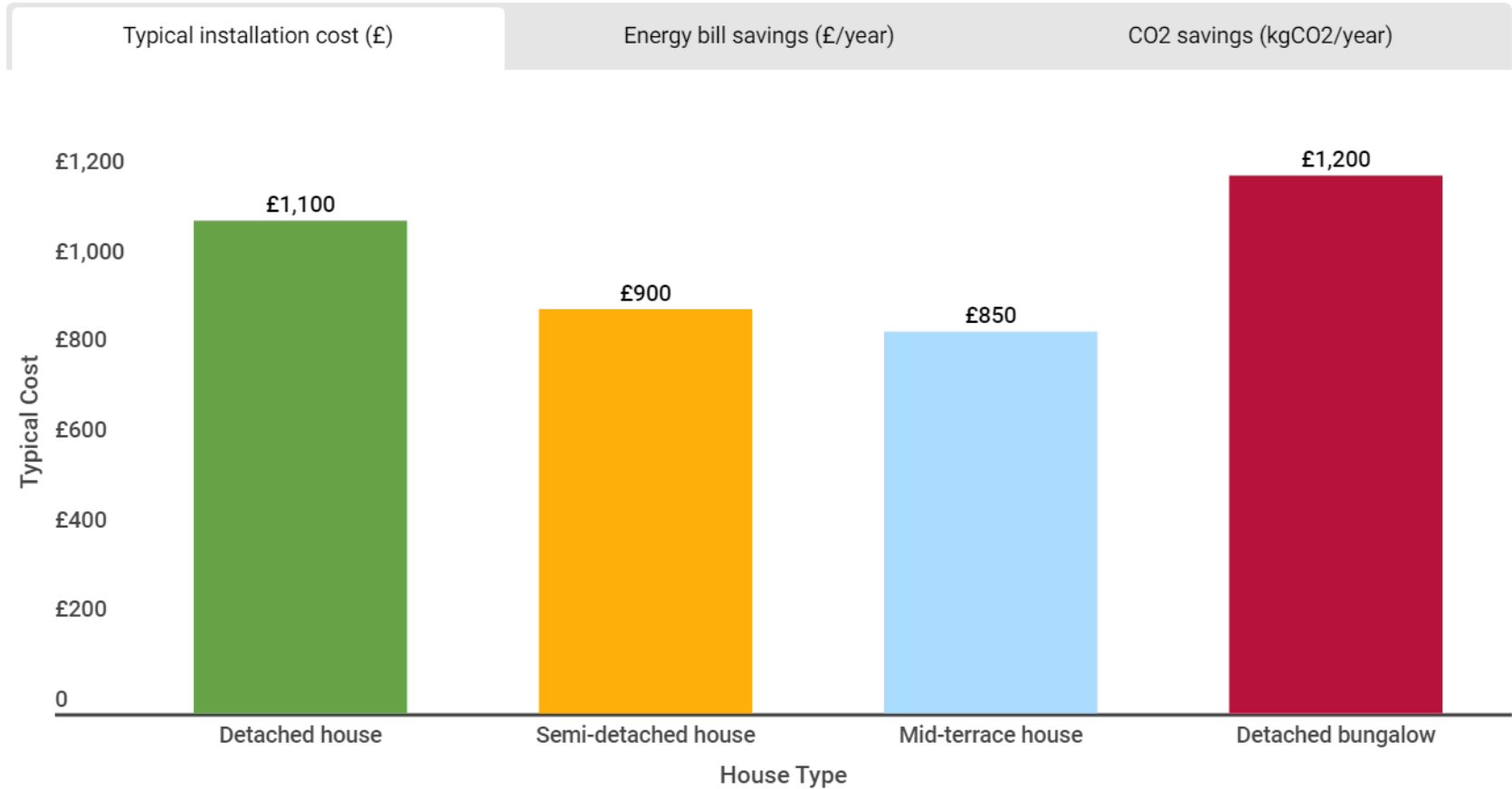
> Insulation > Roof

- A quarter of heat can be lost through the roof in an uninsulated home.
- Reduce heat loss → reduce bills
- Recommended 270mm depth

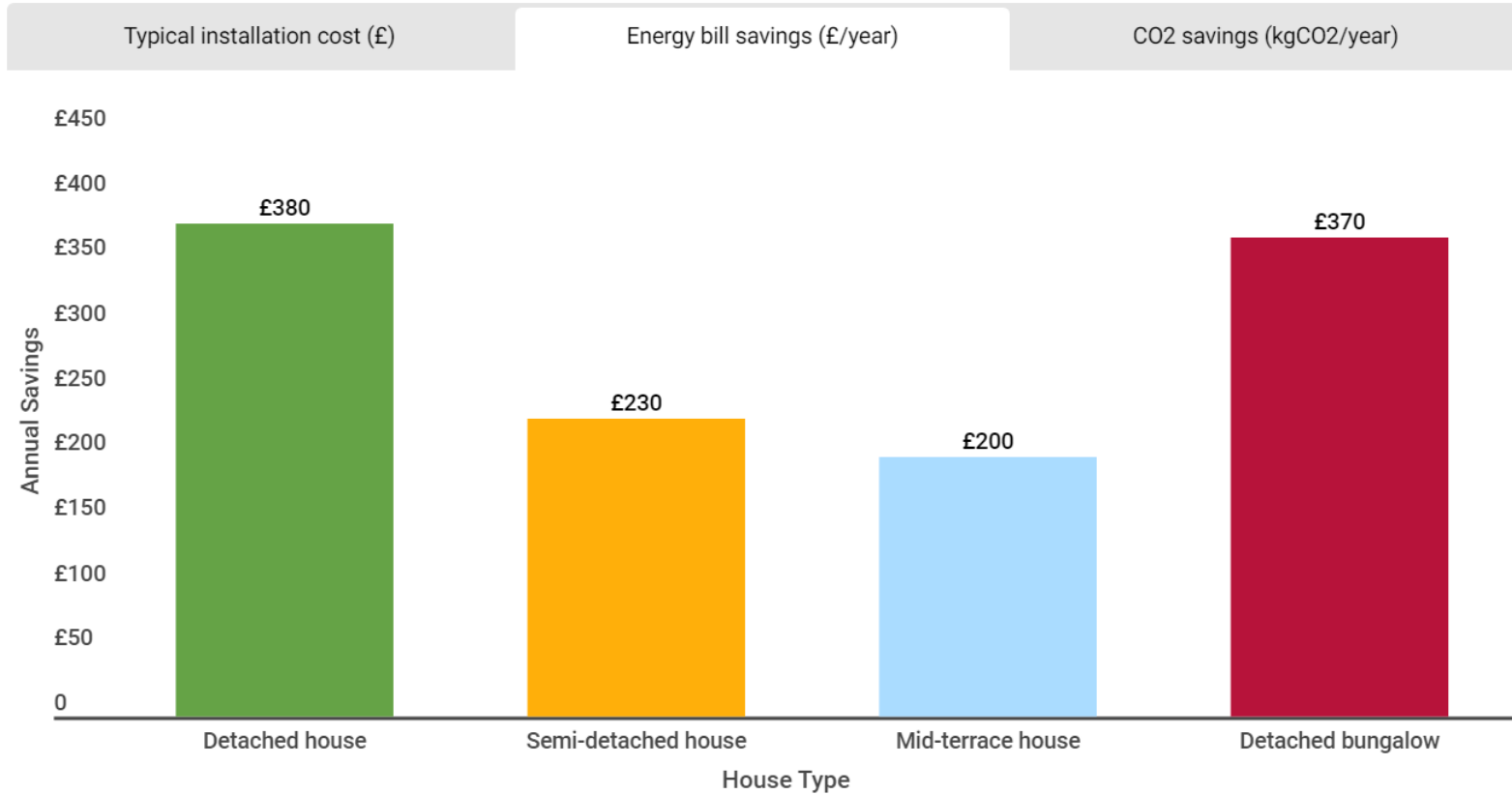


**SUFFOLK LOFT
INSULATION
OFFER**

> Insulation > Roof

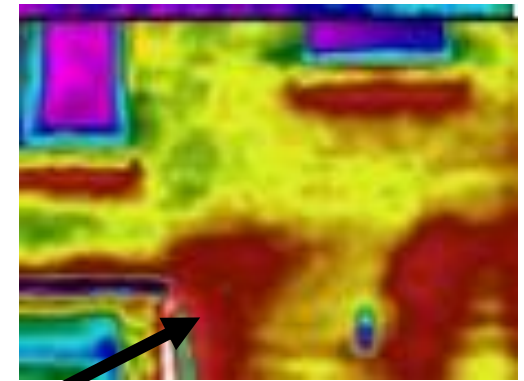


> Insulation > Roof



> Insulation > Wall

An uninsulated house loses approximately a third of its heat through the walls.



Internal wall insulation



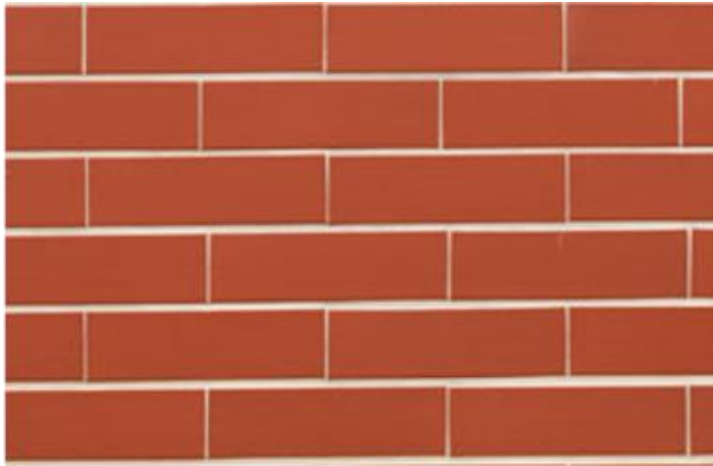
Cavity wall insulation



External wall insulation

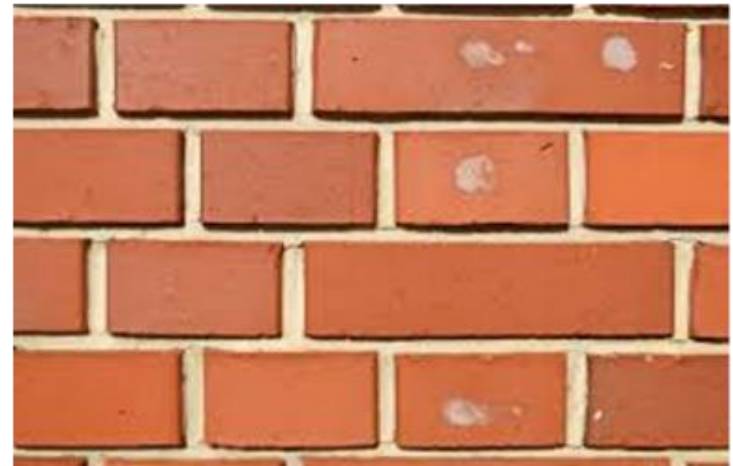


> Insulation > Wall

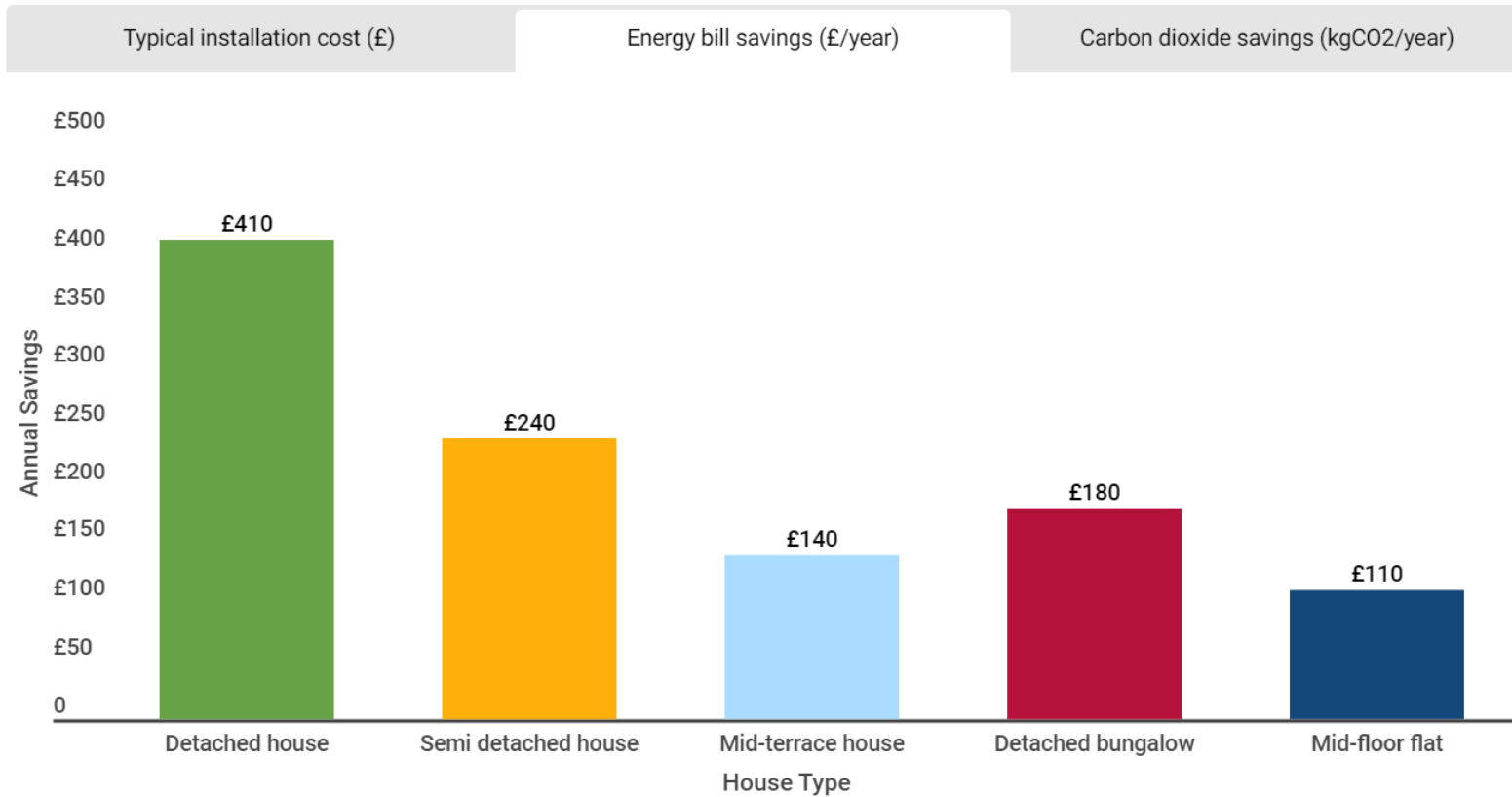


CAVITY WALL: If a home has cavity walls, the bricks will most likely have an even pattern, with each brick lengthways.

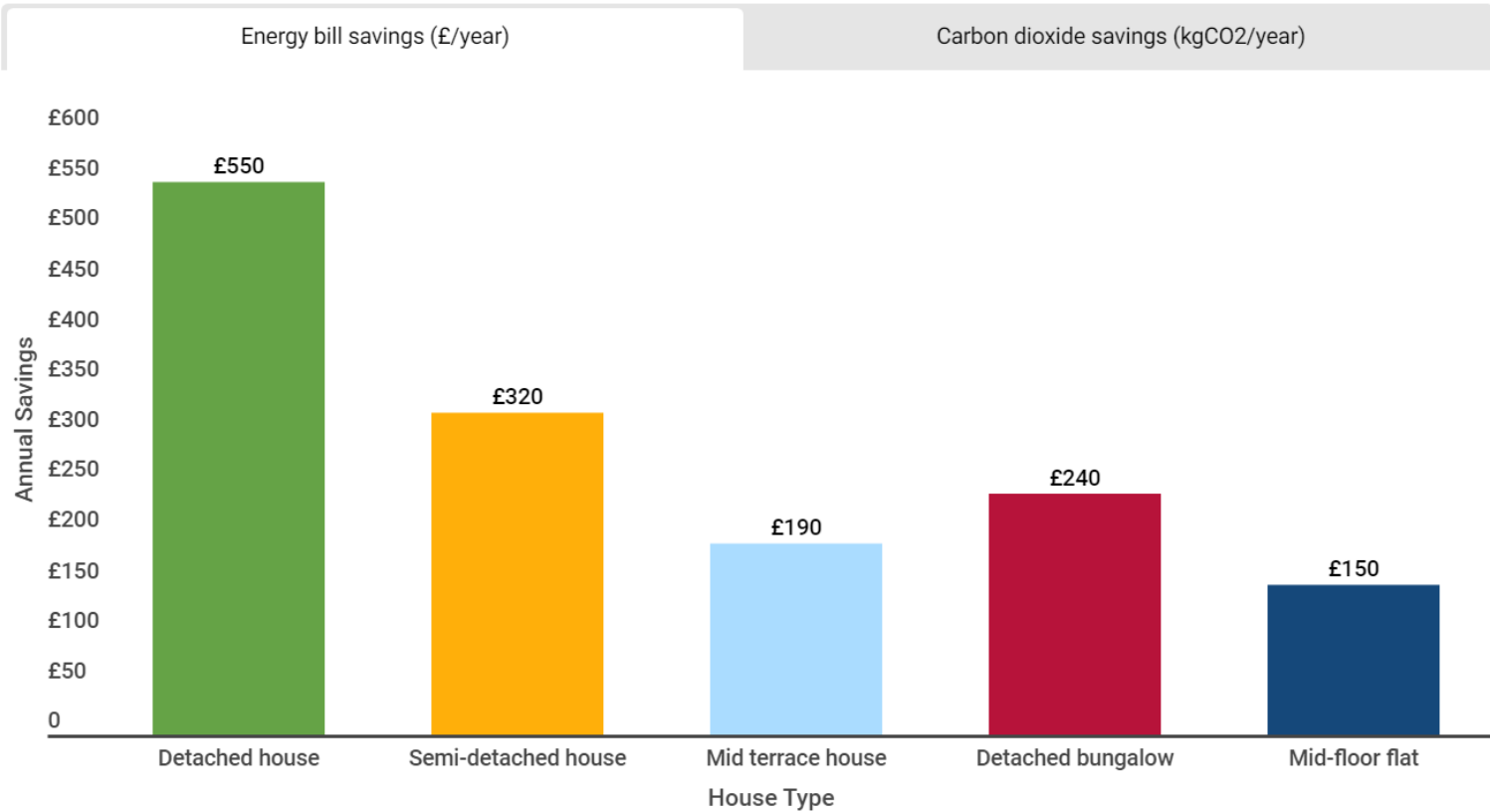
SOLID WALL: If a home has solid walls, the bricks will have an uneven pattern, with some of the bricks laid sideways so you can see the smaller ends.



> Insulation > Wall > Cavity wall



> Insulation > Wall > Solid wall

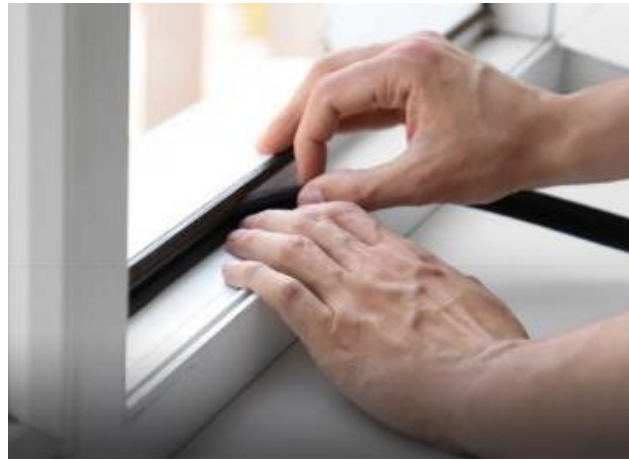


> Draughtproofing

- Draughtproofing can result in 10% to 20% energy savings per year.
- Often cheap and easy to do



> Draughtproofing



> Other ways to save energy

- LEDs – use up to 90% less energy and last up to 25 times longer than traditional incandescent bulbs.
- Smart thermostat
- Room thermostat
- Bleed radiators
- Turn down the flow temperature of boiler

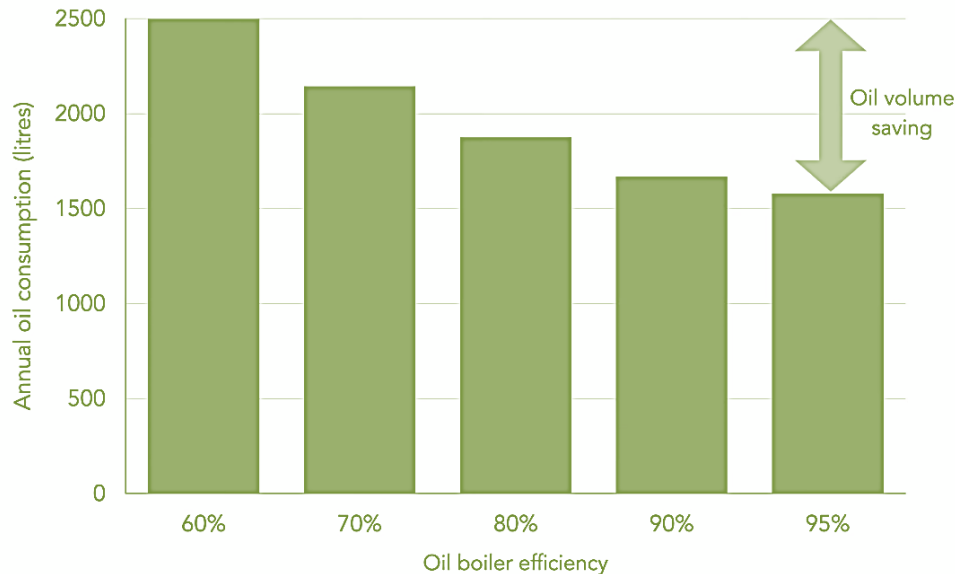
> Other ways to save energy > **Boiler Upgrade**

- Boilers need replacing around every 15 years
- Replacements: new and efficient boiler or low carbon heating system such as a biomass boiler or heat pump.

	Detached house	Semi-detached house	Terrace house	Flat (mid floor)
D (78-82%)	£375	£305	£235	£125
E (74-78%)	£460	£335	£260	£140
F (70-74%)	£590	£380	£290	£160
G (less than 70%)	£840	£540	£420	£230

> Other ways to save energy > **Boiler Upgrade**

- Boilers need replacing around every 15 years
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Renewable Energy



> Solar PV

Solar panels capture the sun's energy and convert it into electricity.

The kWp of a solar array depends on the size, type and number of panels – but a 3 or 4 kWp array is typical for an average roof.



> Air Source Heat Pump

www.getaheatpump.org.uk/



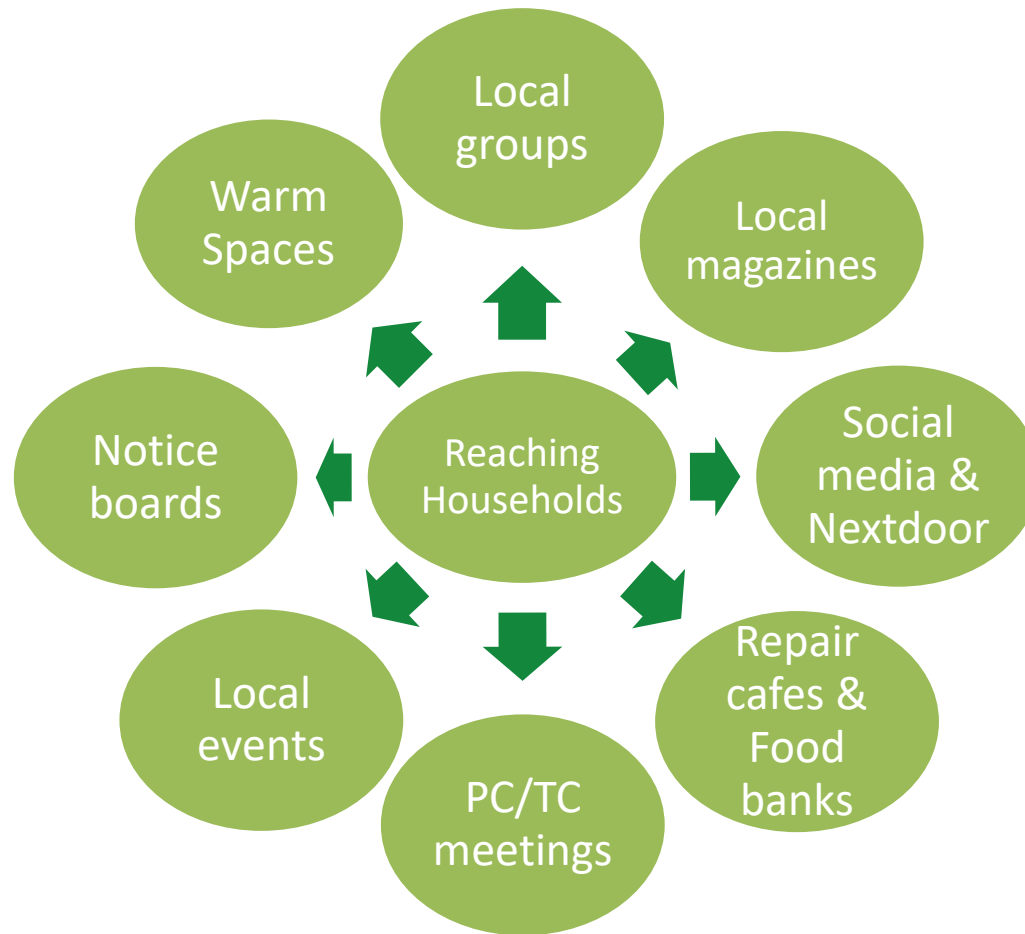
Communication & Funding



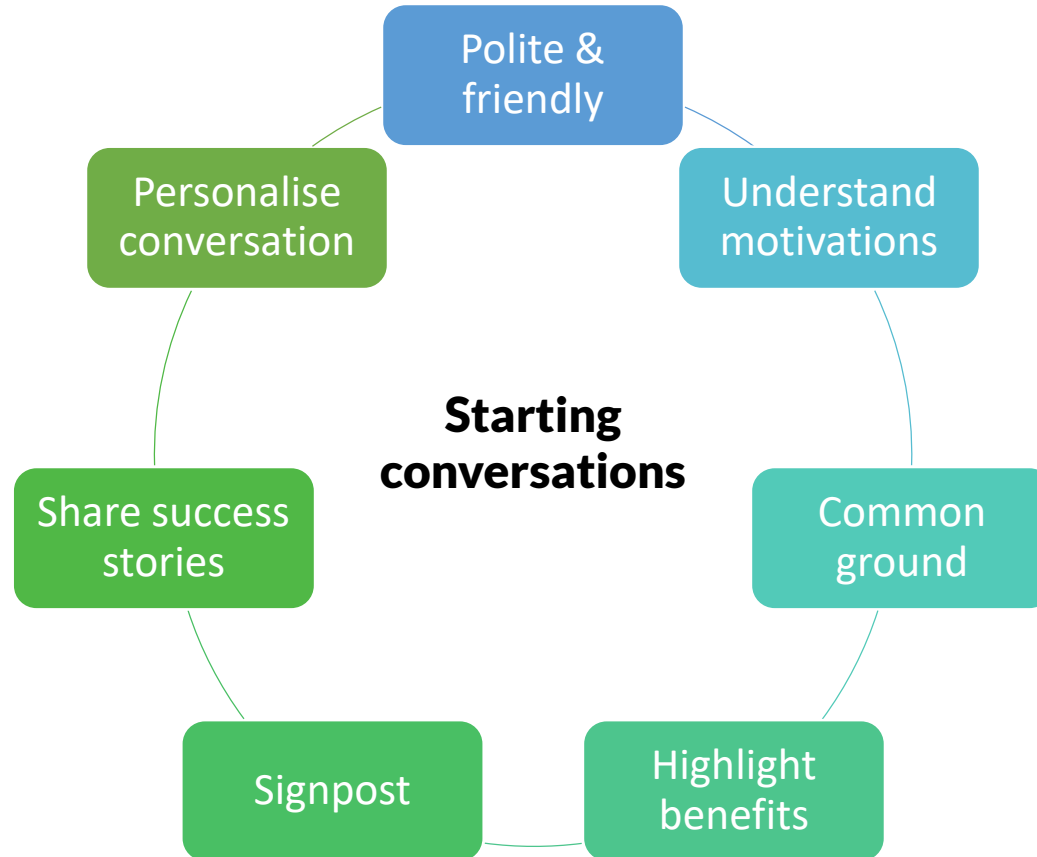
http://www.



> Communication > Connections



> Communication > Starting conversations



> Grants and Funding

Suffolk 0% Green Loans

- Suffolk County Council's loan scheme spreads the cost of installing solar panels and other renewable energy measures. Loans available are from £2,000 to £15,000, over a maximum repayment term of 7 years: [Suffolk Green Loans](#)

Warm Homes Suffolk

- They provide advice and funding to help improve a home's energy efficiency for homeowners, renters and landlords.
- They help with loft and wall insulation, air source heat pumps and solar panels.
- Eligibility Criteria: if you don't have gas central heating (this is changing in April 2025) and the gross household income is less than £36,000. They particularly want to hear from people who live in homes with a low energy rating (band D, E, F or G).

www.warmhomessuffolk.org

> Grants and Funding



> Grants and Funding

Mid Suffolk Cosy Homes

- Free retrofit assessment to decide which measures are suitable to install in a home.
- Funding is available (up to £5,000) to instal the recommended measures, such as loft and cavity wall insulation, draught proofing, and more.
- Eligibility criteria: Households with an annual income below £60,000, and less than £16,000 in savings; properties with a current EPC rating of D; properties within council tax bands A-E.

[Mid Suffolk Cosy Homes](#)

Healthy Homes Advisor: West Suffolk

- Free energy advice survey to help homeowners, private renters and landlords assess their energy usage and identify ways to reduce costs.
- The Healthy Homes Advisor at West Suffolk Council will conduct the survey and recommend energy efficient measures and potential energy grants.
- If people are interested in booking a free energy advice survey:

Email: environment@westsuffolk.gov.uk or 01284 757 400

> Grants and Funding

Great British Insulation Scheme

- Government scheme offering free or cheaper insulation, including cavity wall, solid wall and loft insulation.
- Eligibility criteria: EPC rating of D or below, and be in council tax band A-D

www.gov.uk/apply-great-british-insulation-scheme

Connected for Warmth

- Provides fully funded heat pumps and insulation for properties with an EPC of E, F and G and in receipt of a means tested benefit or income below £31,000.
- Landlords can get insulation measures for tenants installed for free.

www.connectedforwarmth.org.uk/

> Grants and Funding

The Boiler Upgrade Scheme

Government scheme providing upfront capital grants to support the installation of heat pumps, and in some cases biomass boilers:

- £7,500 off the cost and installation of an air source heat pump
- £5,000 off the cost and installation of a biomass boiler
- £7,500 off the cost of a ground source heat pump, including water source heat pumps.

[Gov Boiler Upgrade Scheme](#)

Interest-Free Loan for Heating Oil

0% interest loan of up to £500 over 12 months, for a tank of heating oil, for residents of Suffolk. Applicants must be a member of ESLSCU to apply (£1 every 4 weeks).

[Suffolk Oil Loans](#)

> Help paying energy bills

Citizens Advice

Offer knowledge and advice for a variety of issues, including if anyone is struggling to afford their energy bills: [Get Help with Energy Bills](#)

Warm Home Discount Scheme

If people are on benefits, they might be able to get £150 off their electricity bill or pre-payment meter. The scheme hasn't opened for this winter yet: [Warm Home Discount Scheme](#)

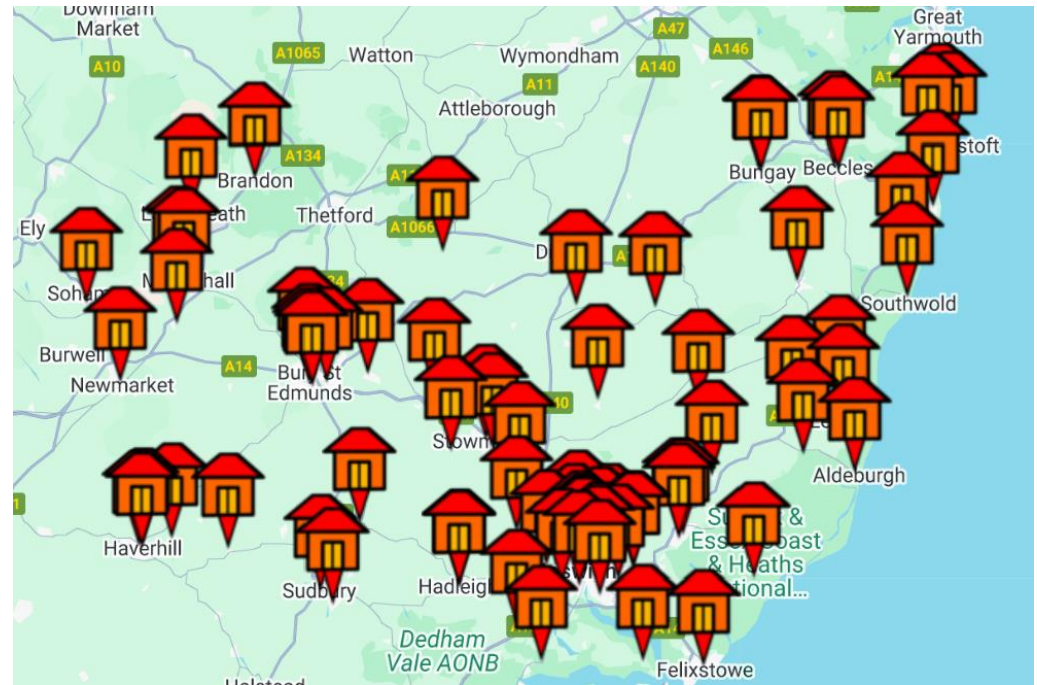
National Energy Action Support Service

The NEA offer energy bill help over the phone for people struggling with their energy bills: [Energy Advice and Support Service](#)

> Warm Spaces

Suffolk has a network of village halls, churches, libraries and community hubs offering residents a warm, safe space over winter.

- [Map - The Rural Coffee Caravan](#)
- [East Suffolk Warm Welcomes](#)
- [West Suffolk Warm Spaces](#)



> Resources

- [Measures to help reduce home heat loss - Energy Saving Trust](#)
- [Advice and more – Centre for Sustainable Energy](#)
- [Advice for older homes – Historic England](#)
- [Ways to save energy survey – Gov UK](#)
- [Thermal imaging Training and Resources](#)

> **If you're interested...**

FREE ONLINE COURSE

An Introduction to Climate Change Awareness

greensuffolk.org/climatechangecourse



Free climate change awareness course to improve your understanding of environmental issues facing communities in Suffolk and beyond.

www.greensuffolk.org/climatechangecourse

> Free support for Suffolk based businesses



ANY QUESTIONS?



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