



Zero Carbon Week
23rd – 28th September

7.30 pm Wednesday 25th September at Mt Hermon Chapel



Welcome & introduction



- Measuring Carbon Footprints

- With thanks to Glen Thistlethwaite; presented by John Sykes

The **main sources of GHGs** that make up our carbon footprints:

- Fuel use in our homes (gas, oil, coal, electricity)
- Transport emissions (esp. planes and cars)
- Food production (esp. meat, dairy, food miles)
- Waste management (esp. organic waste to landfill)
- Consumables (esp. electronics, screens)



The Carbon Footprint



The aim is to measure
our own individual
impact on GHG
emissions.

- As individuals
- As a village
- To track this over time and work out what we can do to reduce our emissions.
- There are **SIMPLE** tools that we can all use to estimate our impacts.
- **Please have a go when you get home** ... and share your results with us!



We use the WWF Carbon Footprint Calculator

<https://footprint.wwf.org.uk/>

- **It's so simple!**
- 4 questions on **FOOD**
- 7 questions on **TRAVEL**
- 8 questions on **HOME**
- 7 questions on **STUFF**

• **That's it. Easy!**



GO TO [WWF.ORG.UK](https://www.wwf.org.uk)



ADOPT

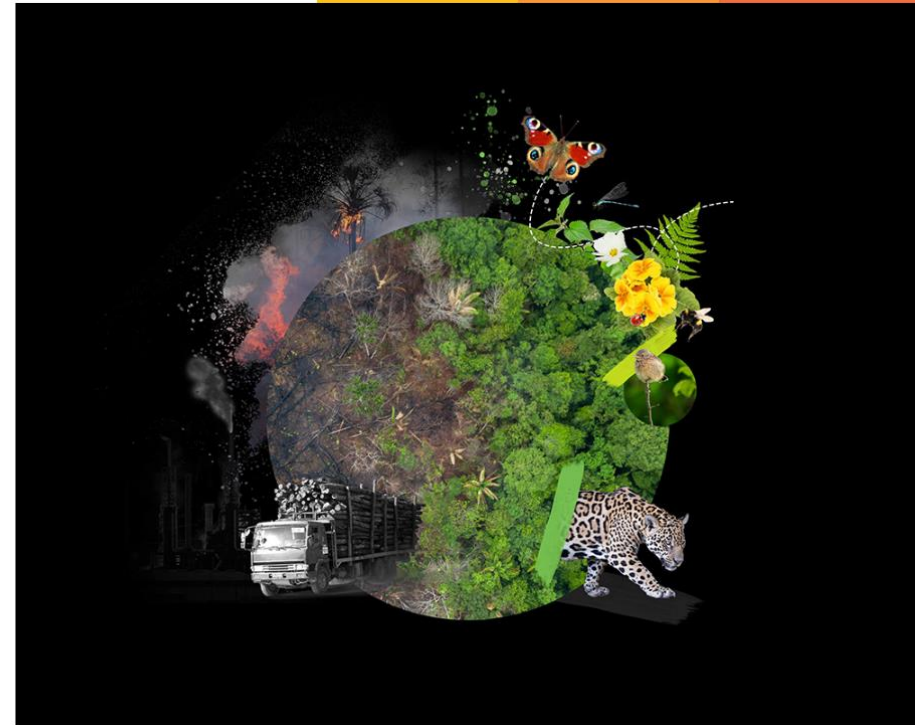
DONATE

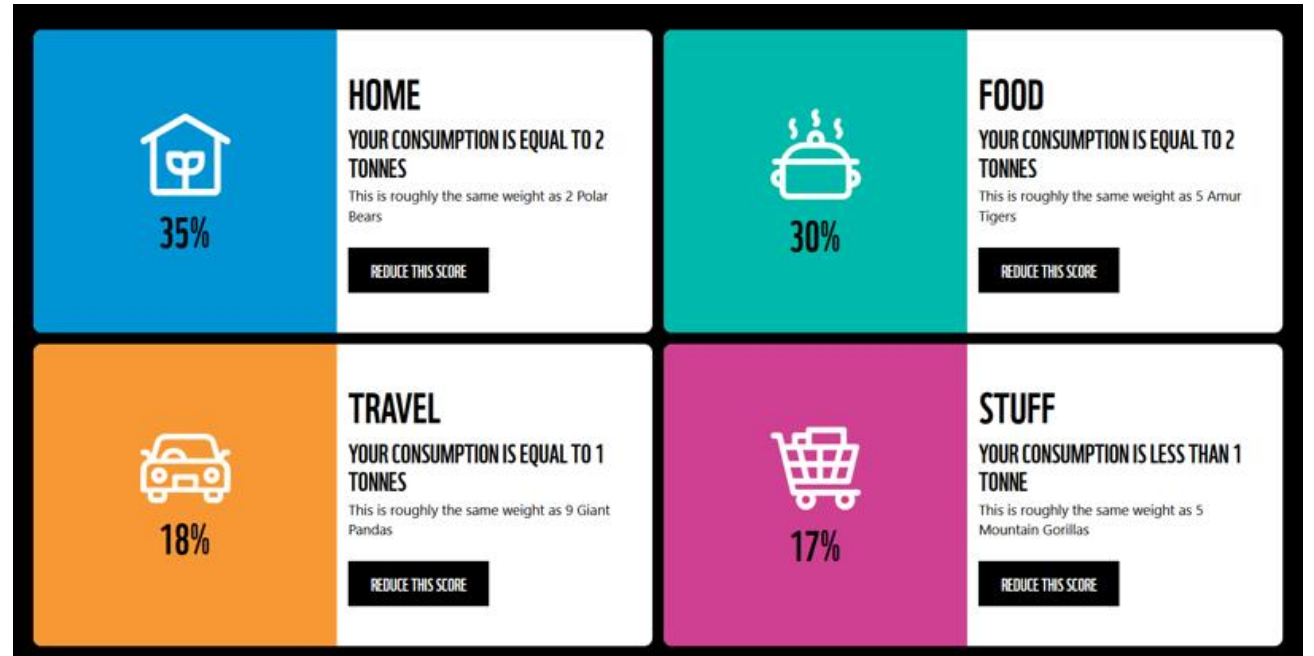
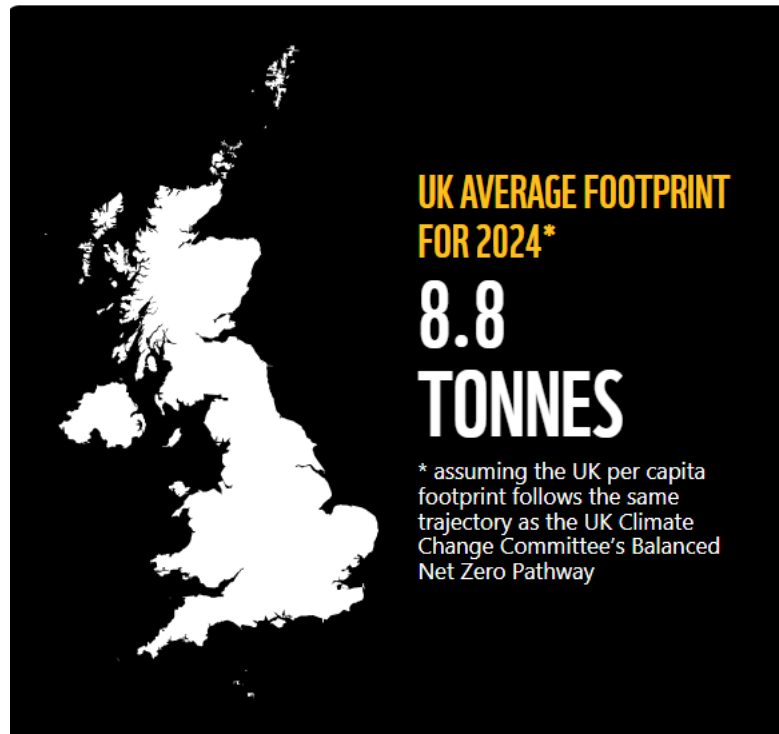
MEMBERSHIP

HOW BIG IS YOUR ENVIRONMENTAL FOOTPRINT?

Our world is in crisis - from climate change to the pollution in our oceans and devastation of our forests. It's up to all of us to fix it. Take your first step with our UK based environmental footprint calculator.

[TAKE THE QUESTIONNAIRE](#)







Please have a go
and share your
results with us.

THANK YOU!

- <https://www.climateactionaddingham.info/zero-carbon/1-reducing-personal-carbon-footprints>



- My Home Insulation

- Martin Ellis



1997 Energy Consumption

Electricity 4800 Kwh

Gas 24,000 Kwh heating and hot Water



















Trial Window

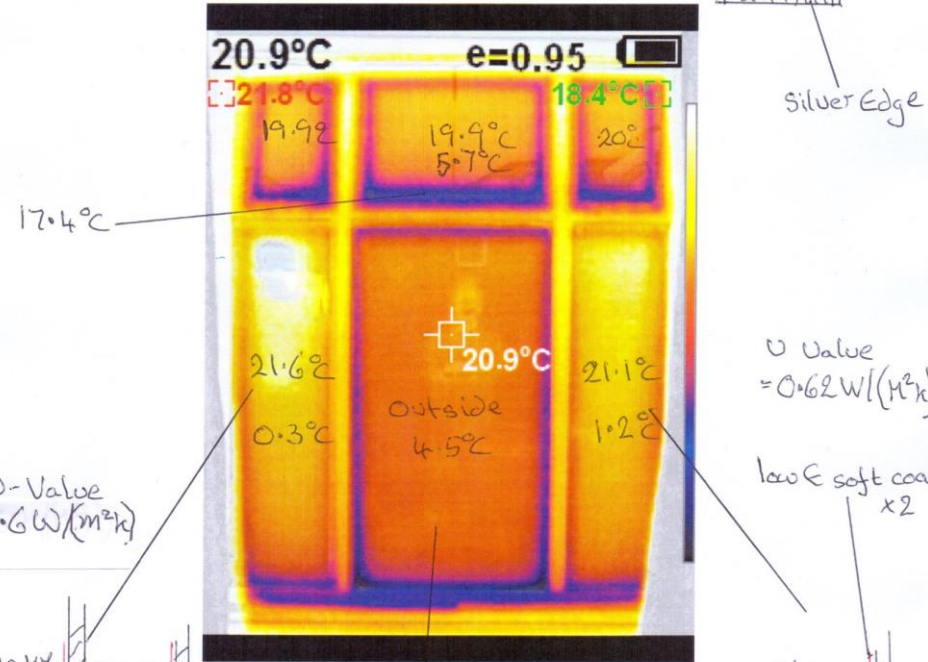
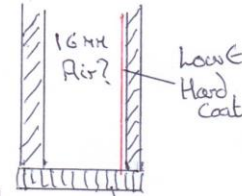
Room Temp 24°C

Outside 3°C

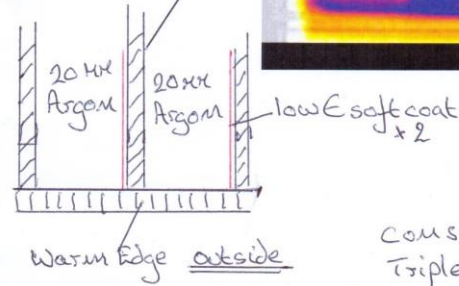
Radiation Frost car windscreen -5.7°C

Timber Window
frame

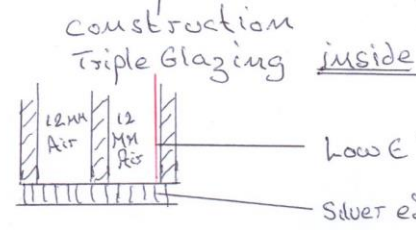
U-Value
 $= 1.99 \text{ W/(m}^2\text{K)}$
 or if Argon filled
 $= 1.80 \text{ W/(m}^2\text{K)}$



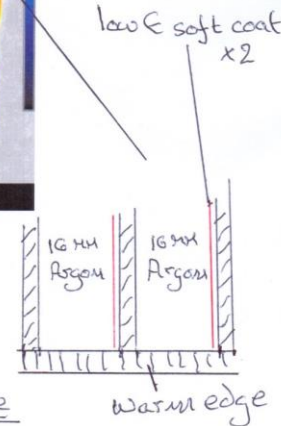
U-Value
 $= 0.6 \text{ W/(m}^2\text{K)}$

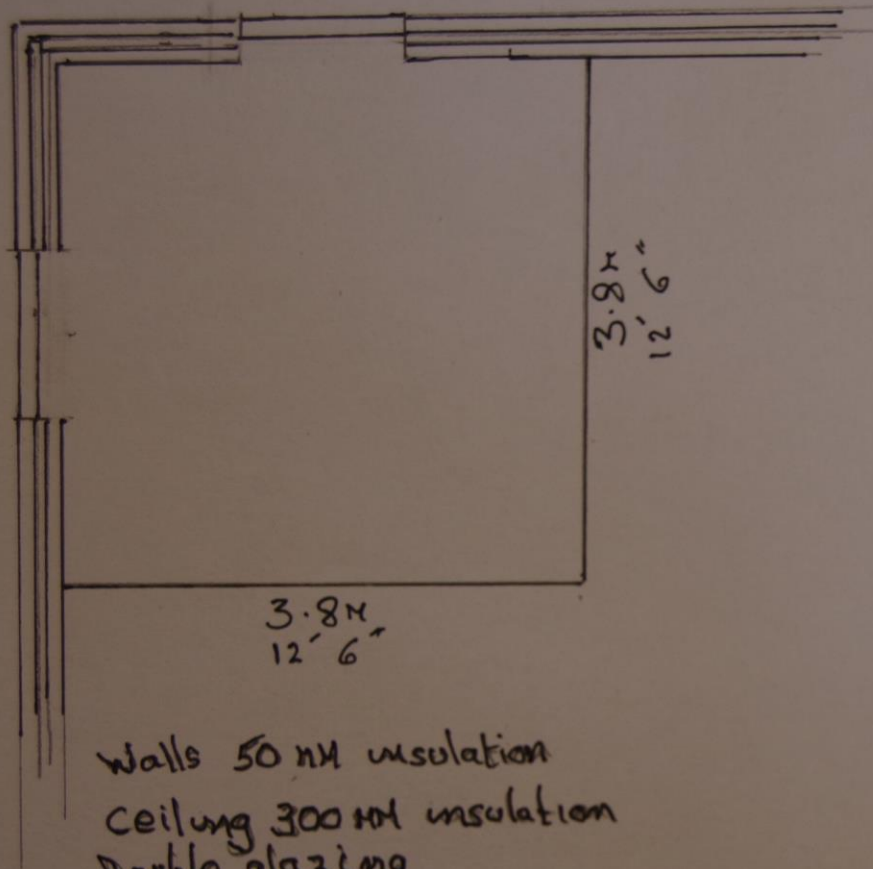


U-Value
 $= 1.49 \text{ W/(m}^2\text{K)}$



U Value
 $= 0.62 \text{ W/(m}^2\text{K)}$





34 w/m² at 1 air change/h

Fabric Heat loss

U Value

w/m²/C°

Wall area $3.8 \times 2.4 \times 2 = 18.24 \text{ m}^2$

Windows $- 2 \text{ m}^2 = 16.24 \text{ m}^2$

Window U value $0.493 = 2 \text{ m}^2$ 8 watts

U value $2.0 =$ 4 watts

Ceiling $3.8 \times 3.8 = 14.44 \text{ m}^2$

U value $0.179 =$

2.3 watts

14.3 watts

At -3°C outside 21°C inside

24°C Diff Fabric heat loss 343 watts

Air change loss

Volume $3.8 \times 3.8 \times 2.4 = 34.65 \text{ m}^3$

at 1 air change per hour

$34.65 \times 1 \times 0.33 =$

11.43 w/c°

At -3°C outside 21°C inside

24°C Difference

$= 274 \text{ watts}$

at 2 x air changes/hr

$= 548 \text{ watts}$

at 3 x air changes/hr

$= 822 \text{ watts}$

at 0.3 x air changes/hr

$= 82 \text{ watts}$

















Passive haus	2-10 W/m²
Eco/low carbon homes	10-20 W/m²
Recent new build (post 2006)	20-40 W/m²
Pre 2006 new build or recent renovation	30-50 W/m²
Renovated properties with cavity wall insulation and over 75mm loft insulation	40-65 W/m²
Victorian houses, perhaps a mix of single/double glazing with 55-75mm loft insulation	65-85 W/m²
Victorian or older, single glazed, no loft insulation	95-110 W/m²
If the property is going to be on/off	Add 10%
If intermittently heated, i.e. a holiday home	Add 20%

2023 Energy Consumption

Electricity 1303 Kwh (purchased) (1997 4800Kwh)

Gas 4488 Kwh

Including Hot Water (1997 24,000 Kwh)

Logs 3399 Kwh

Total 7887 Kwh

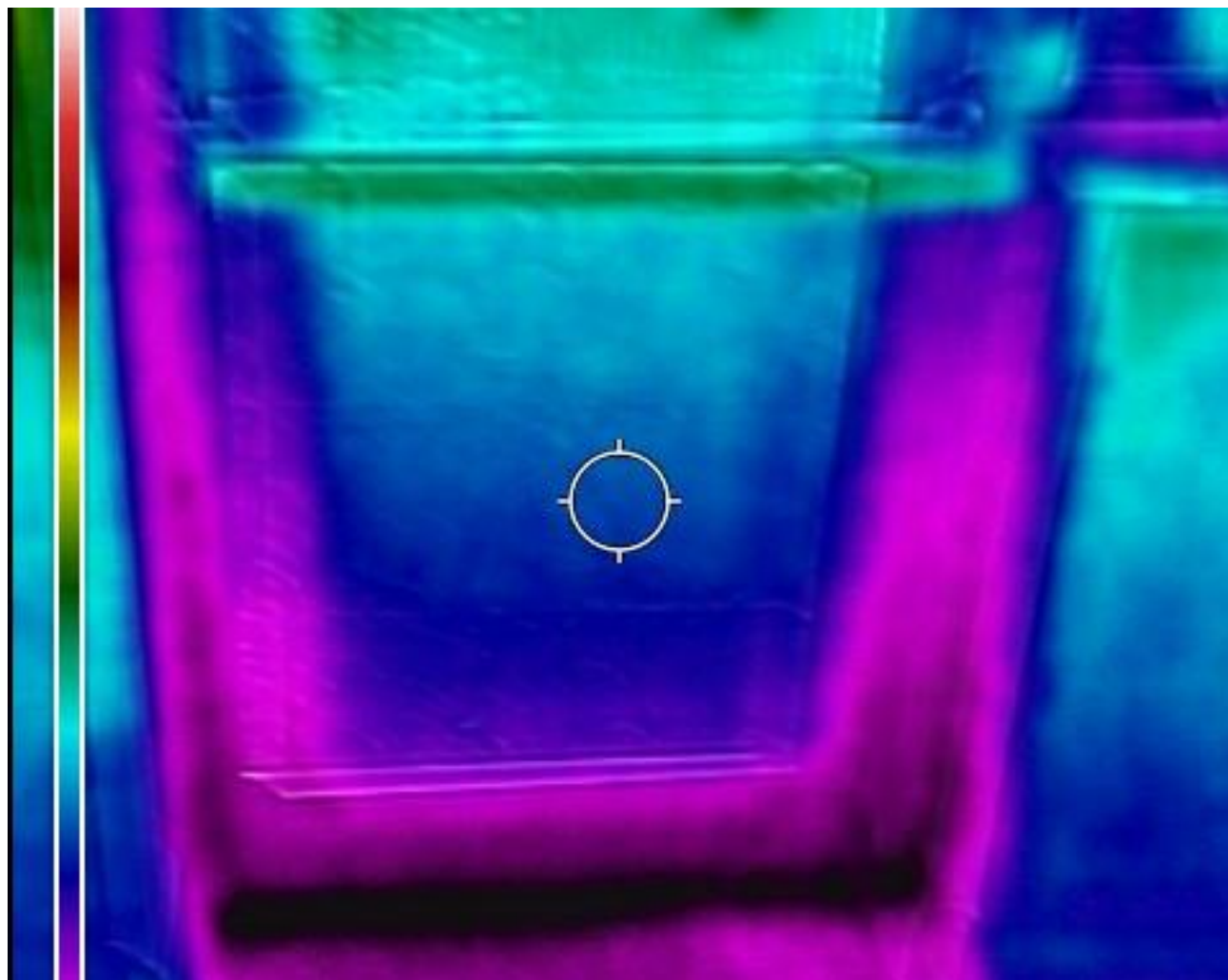
Heating and hot water





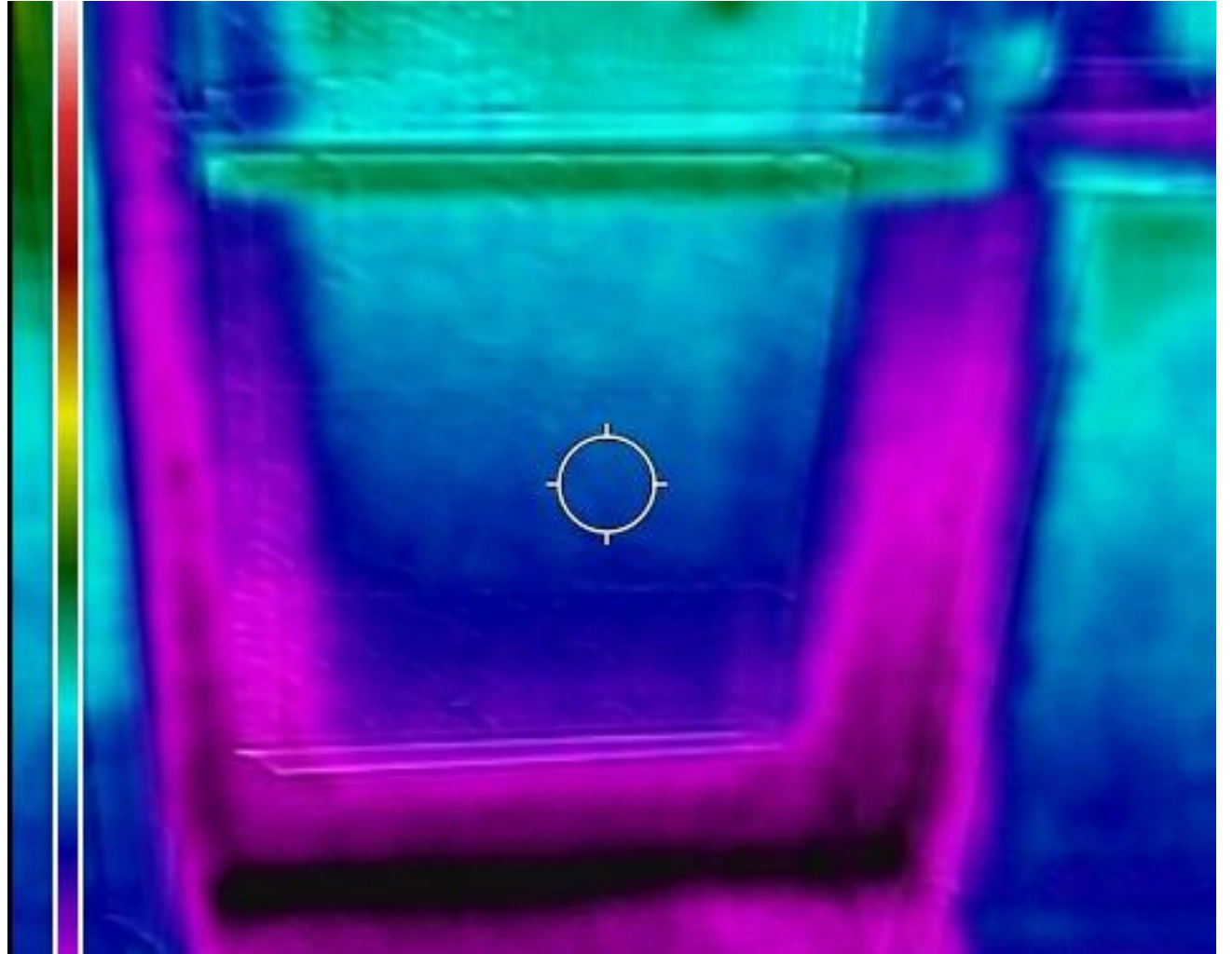
- Checking for leaks using a TIC

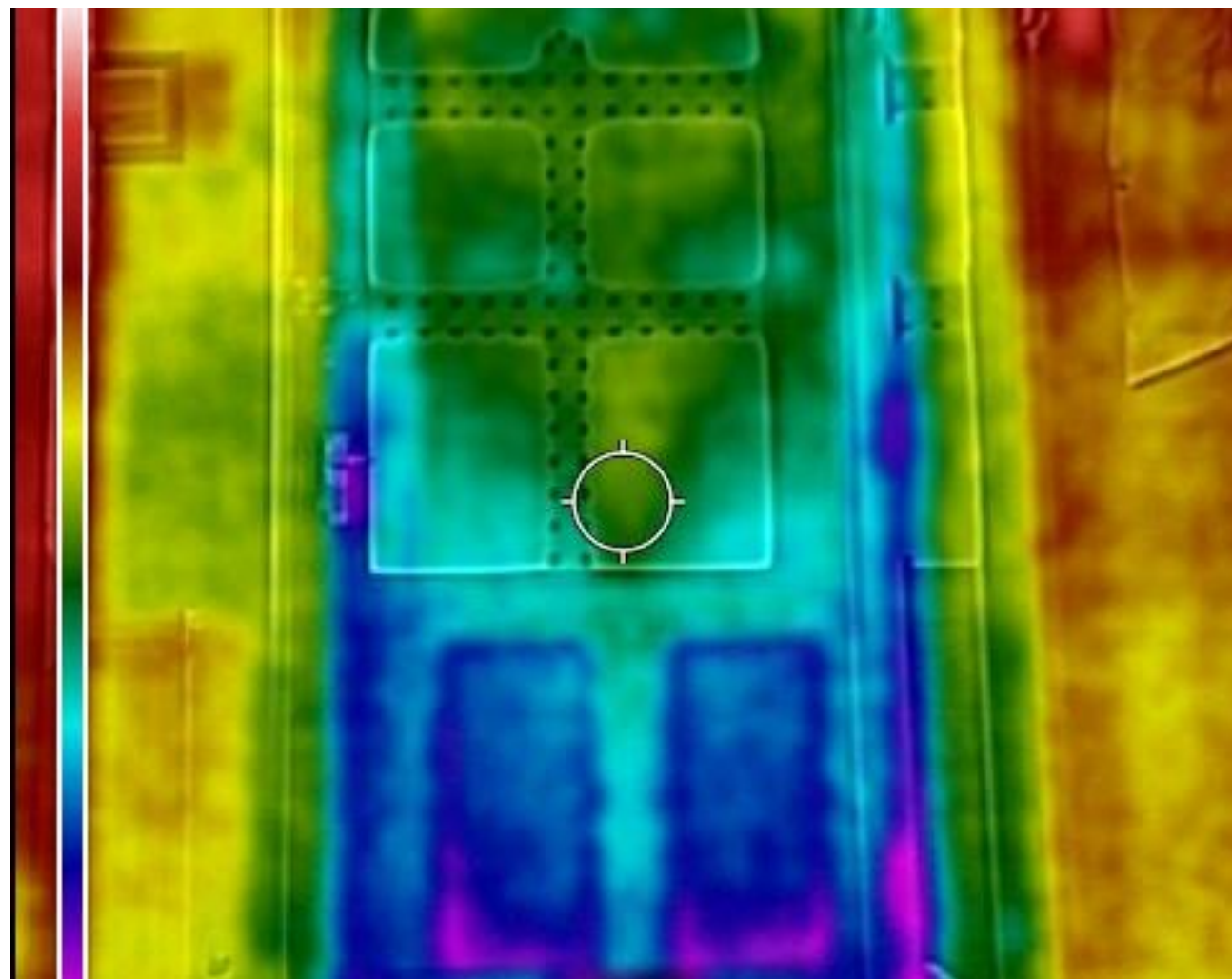
- David Bartlett & Ian Viner





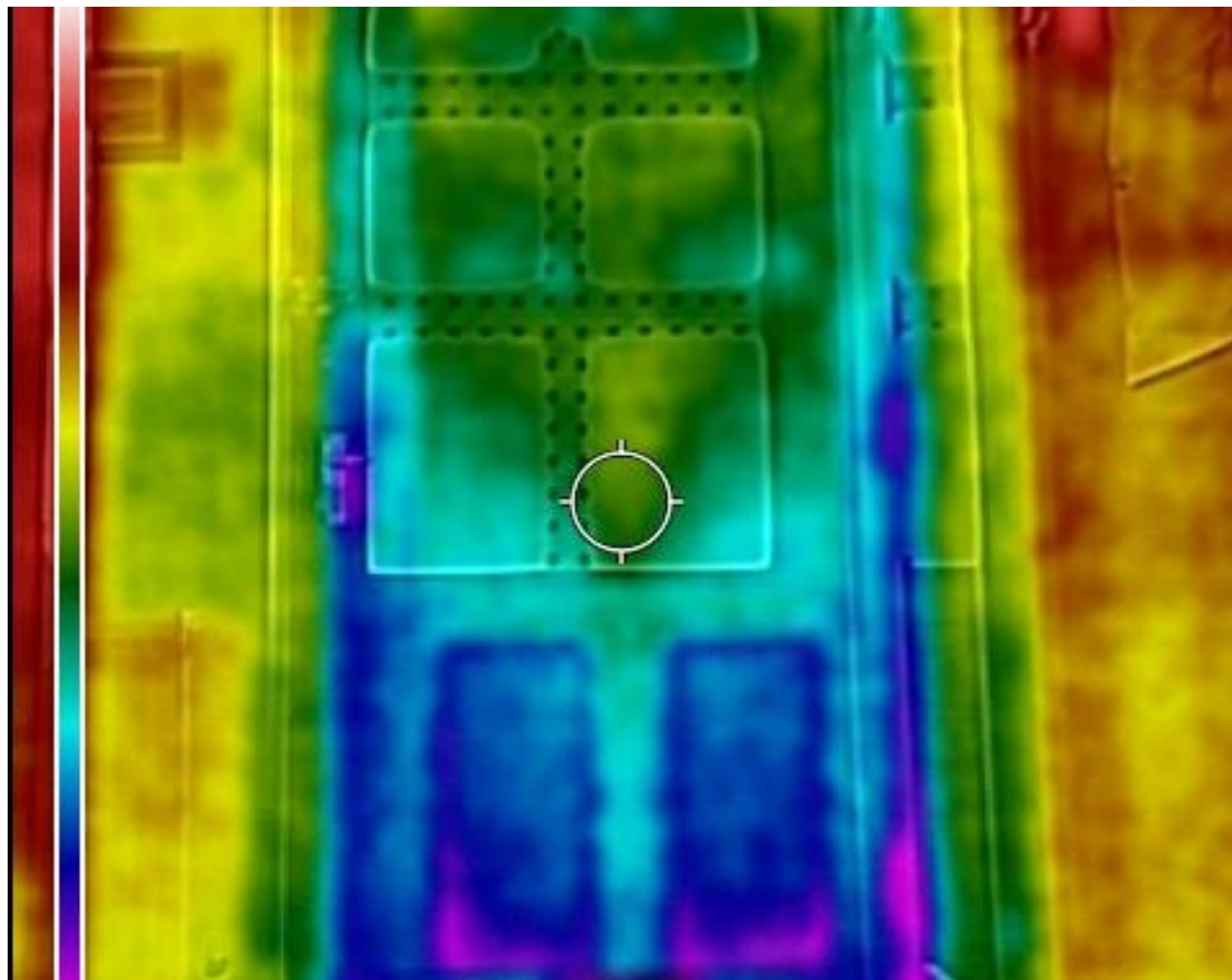
A draughty door.

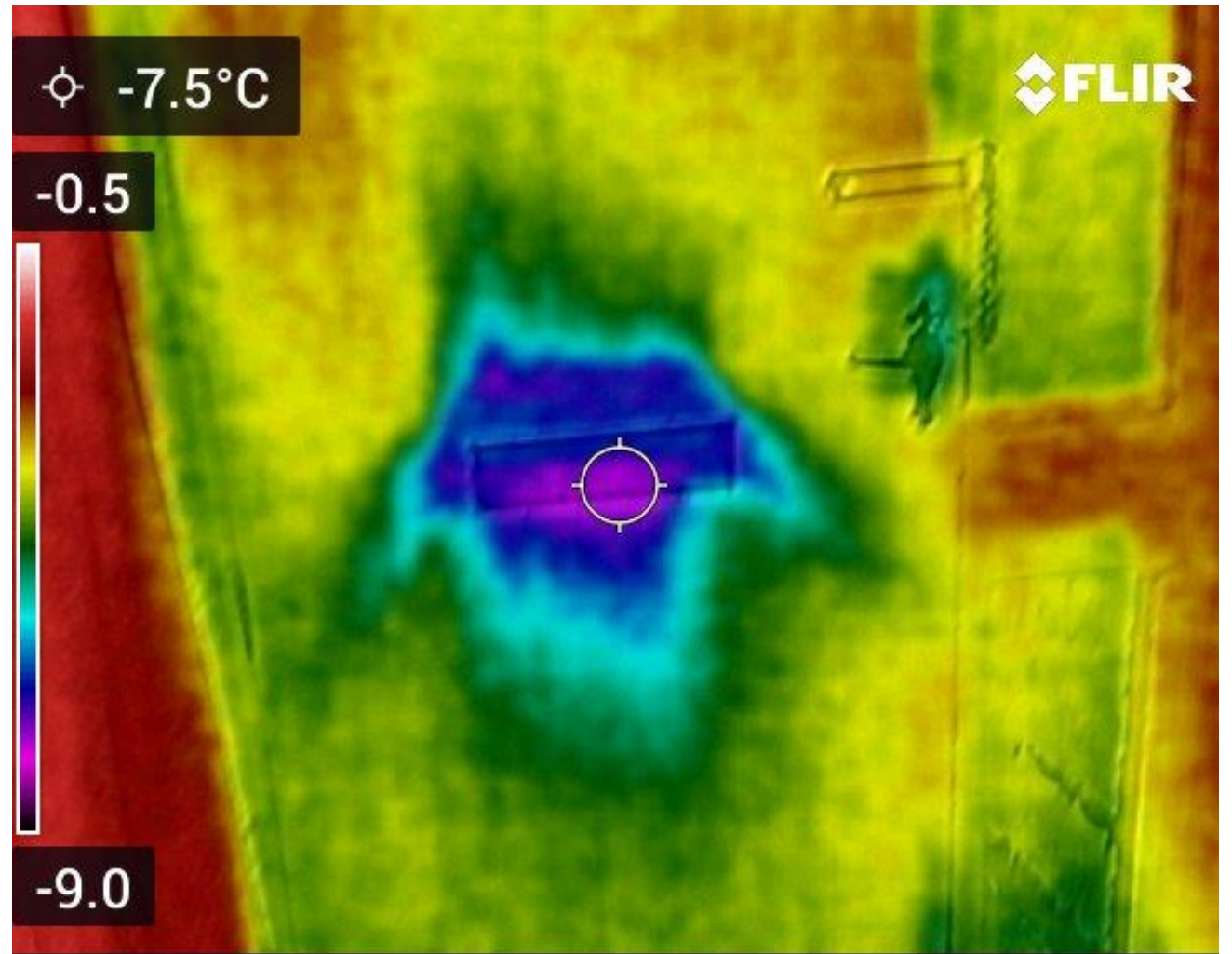






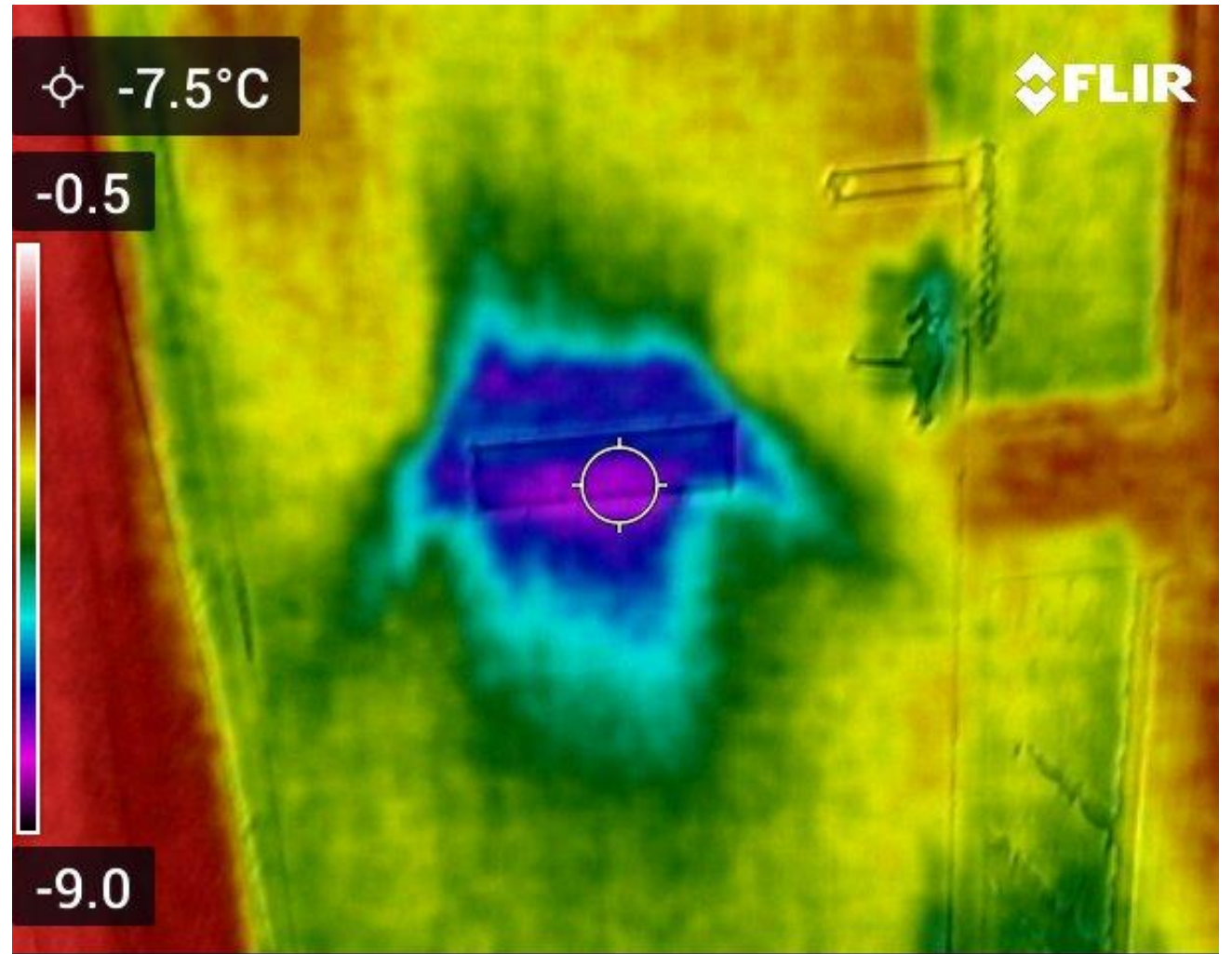
A front door providing (a cold bridge).

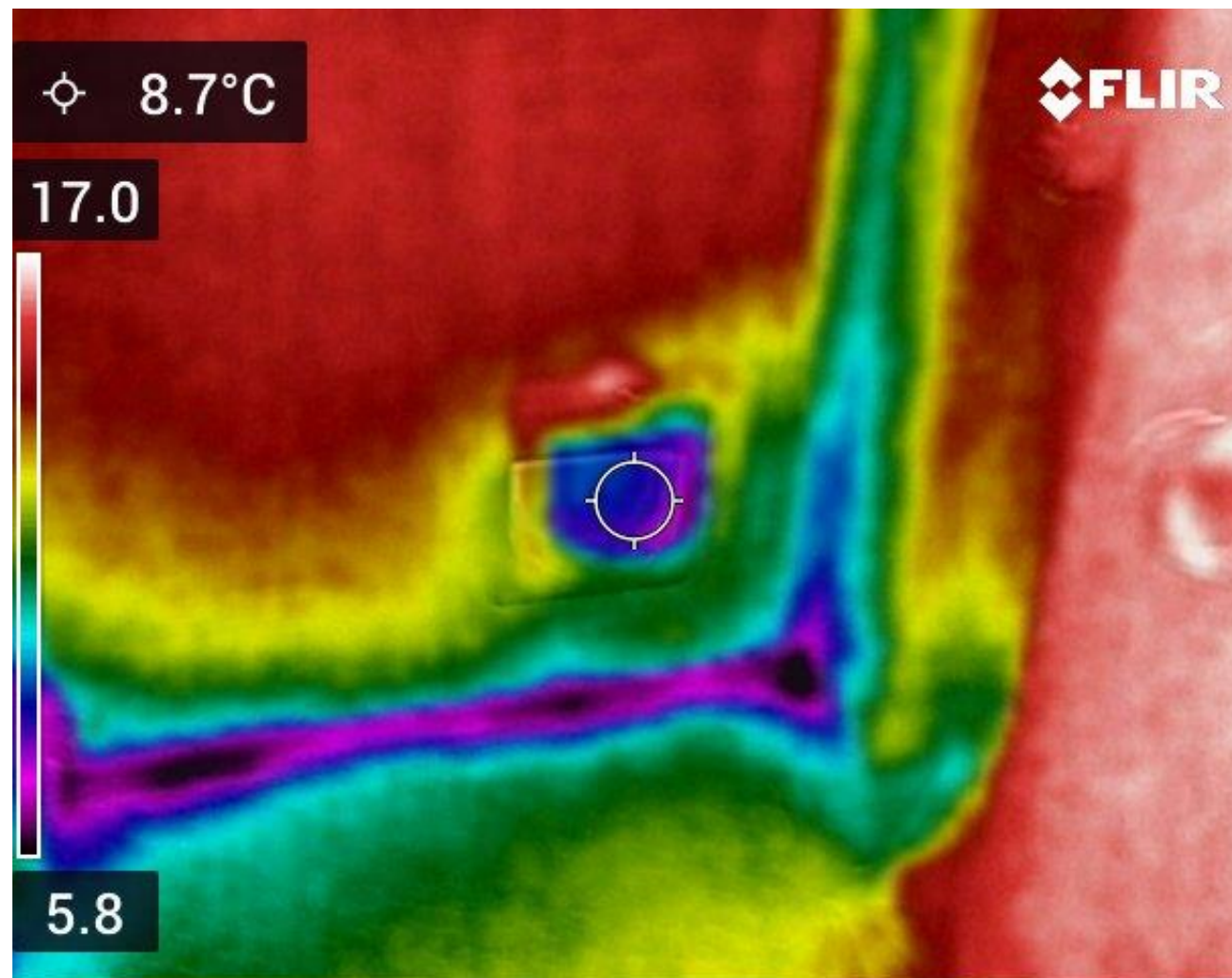


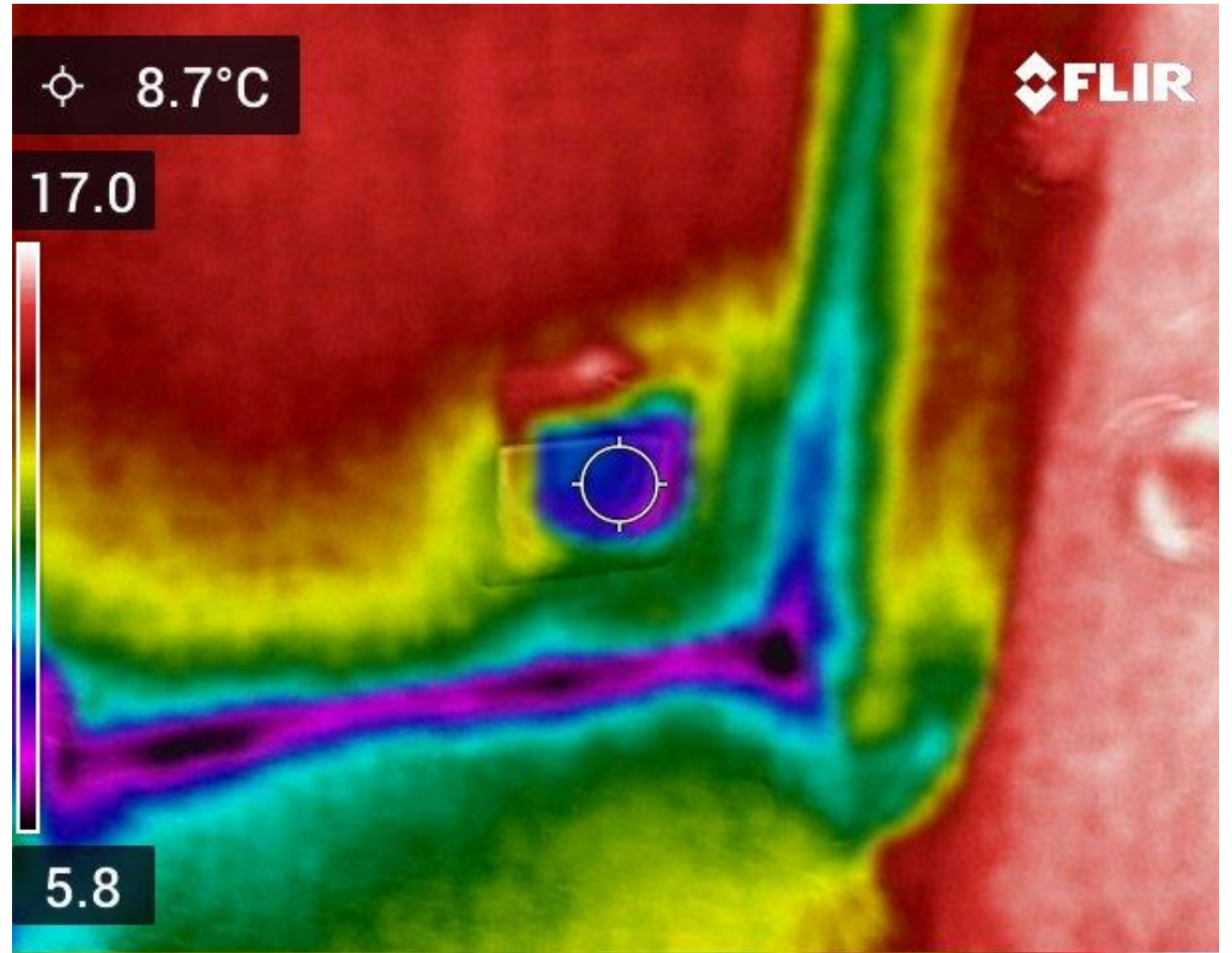




A letterbox.



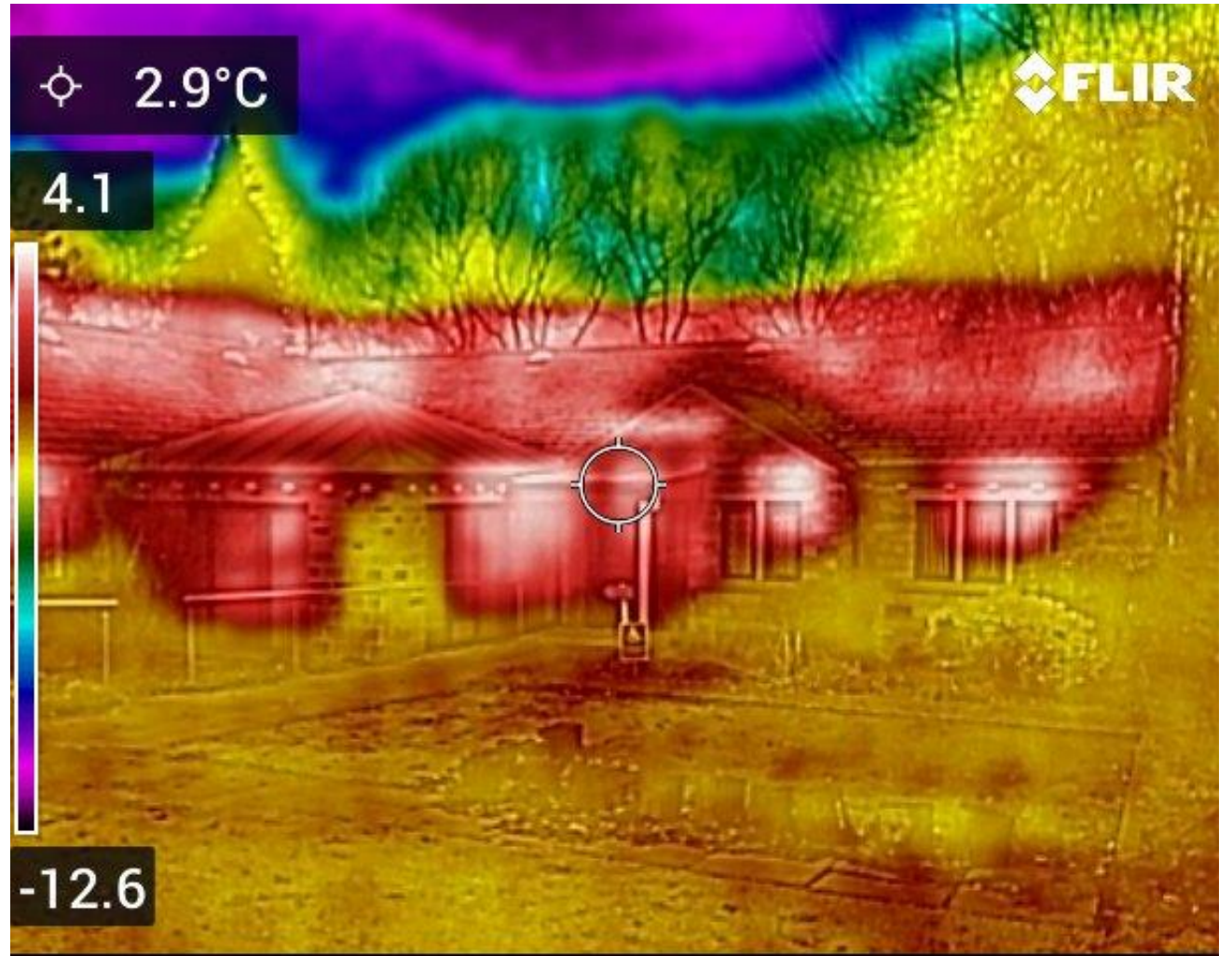






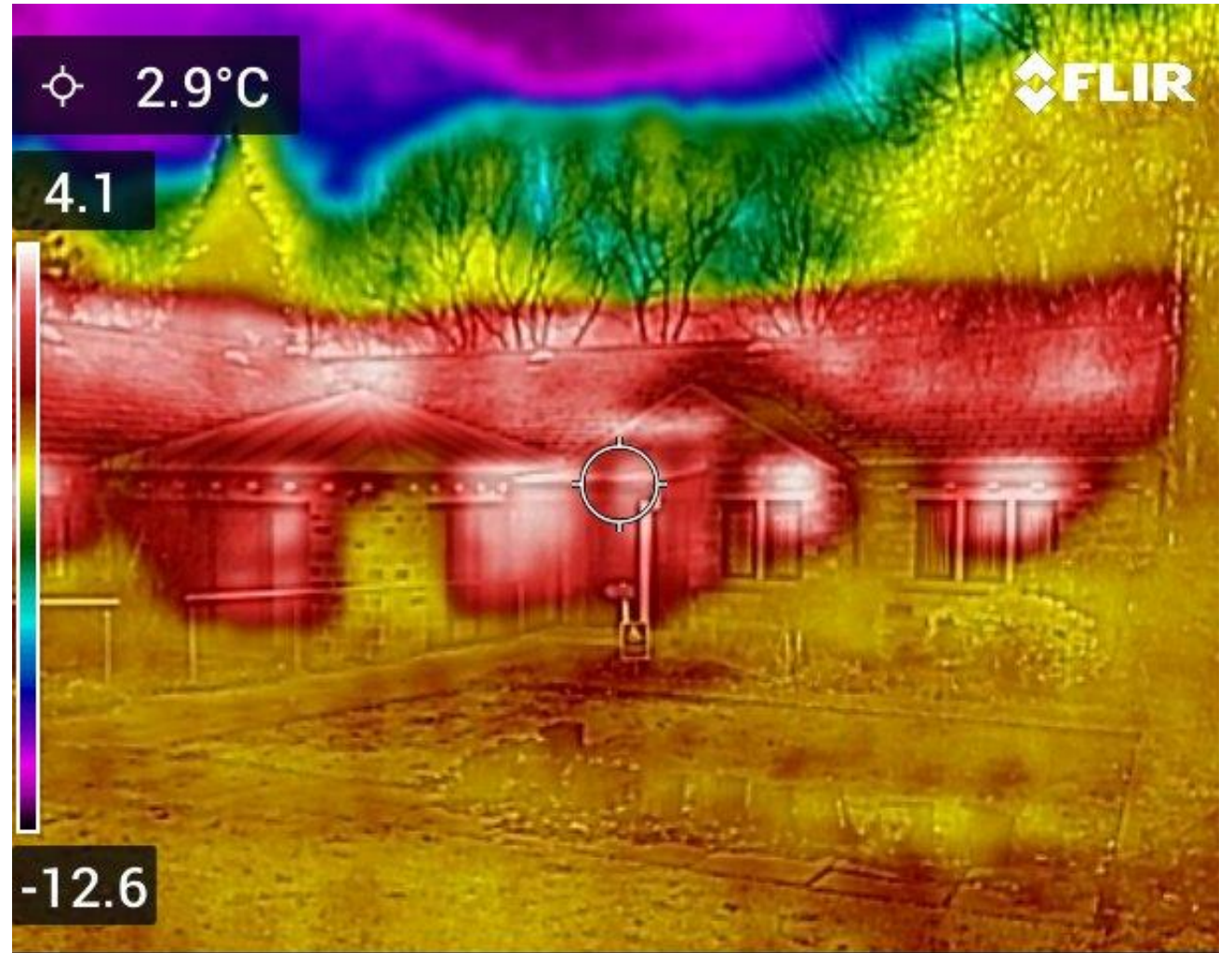
Aluminium window frames.

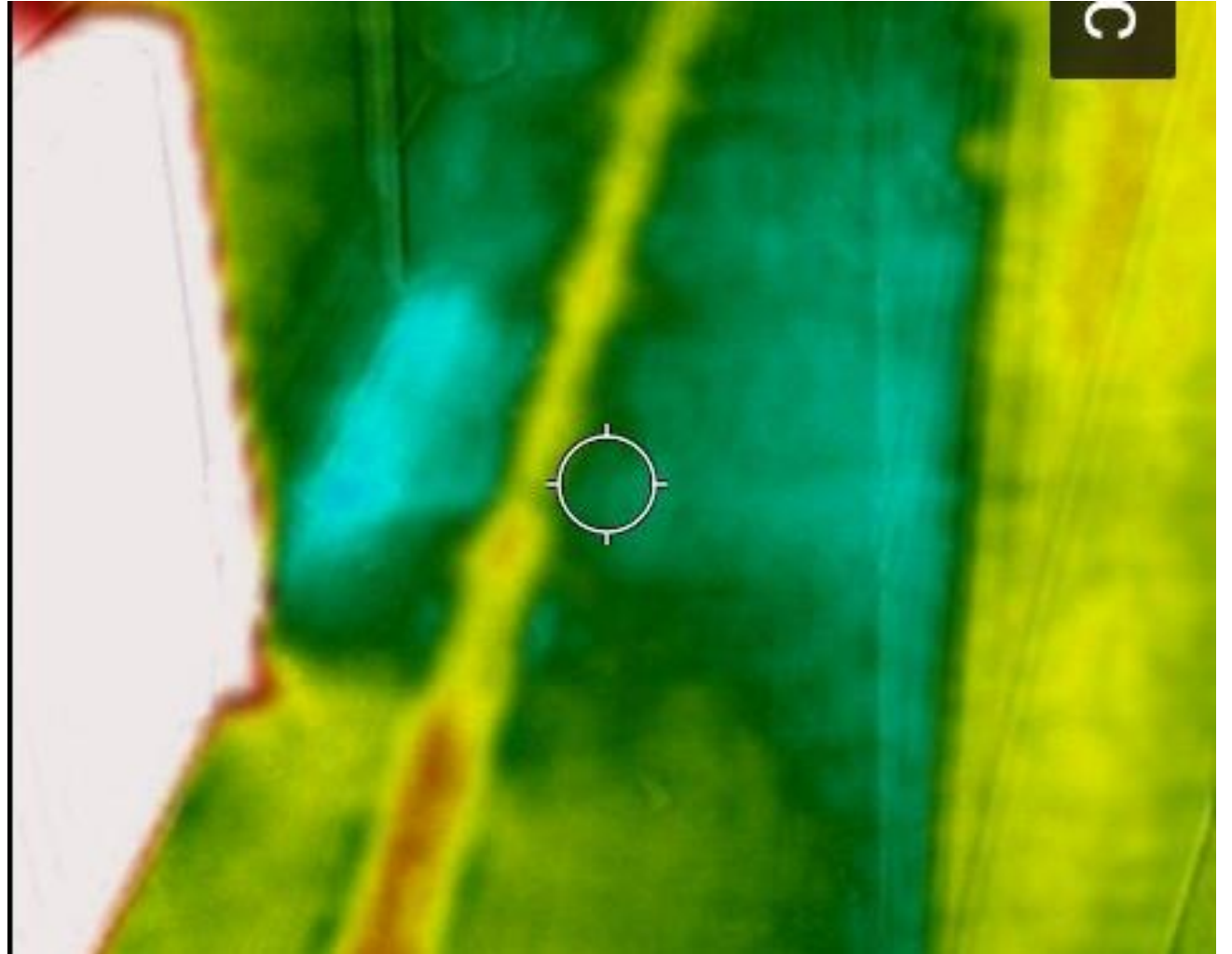






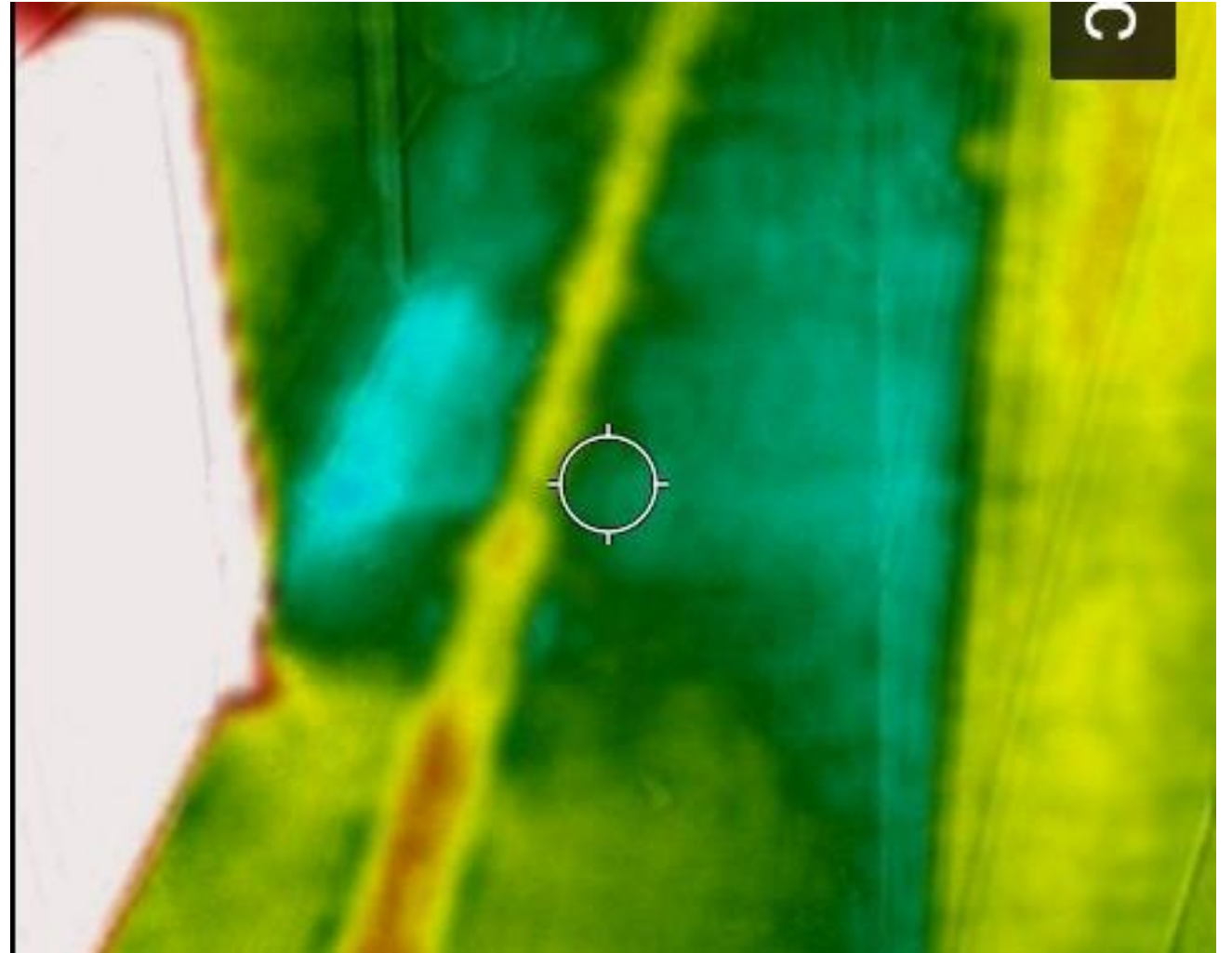
Poor loft insulation.

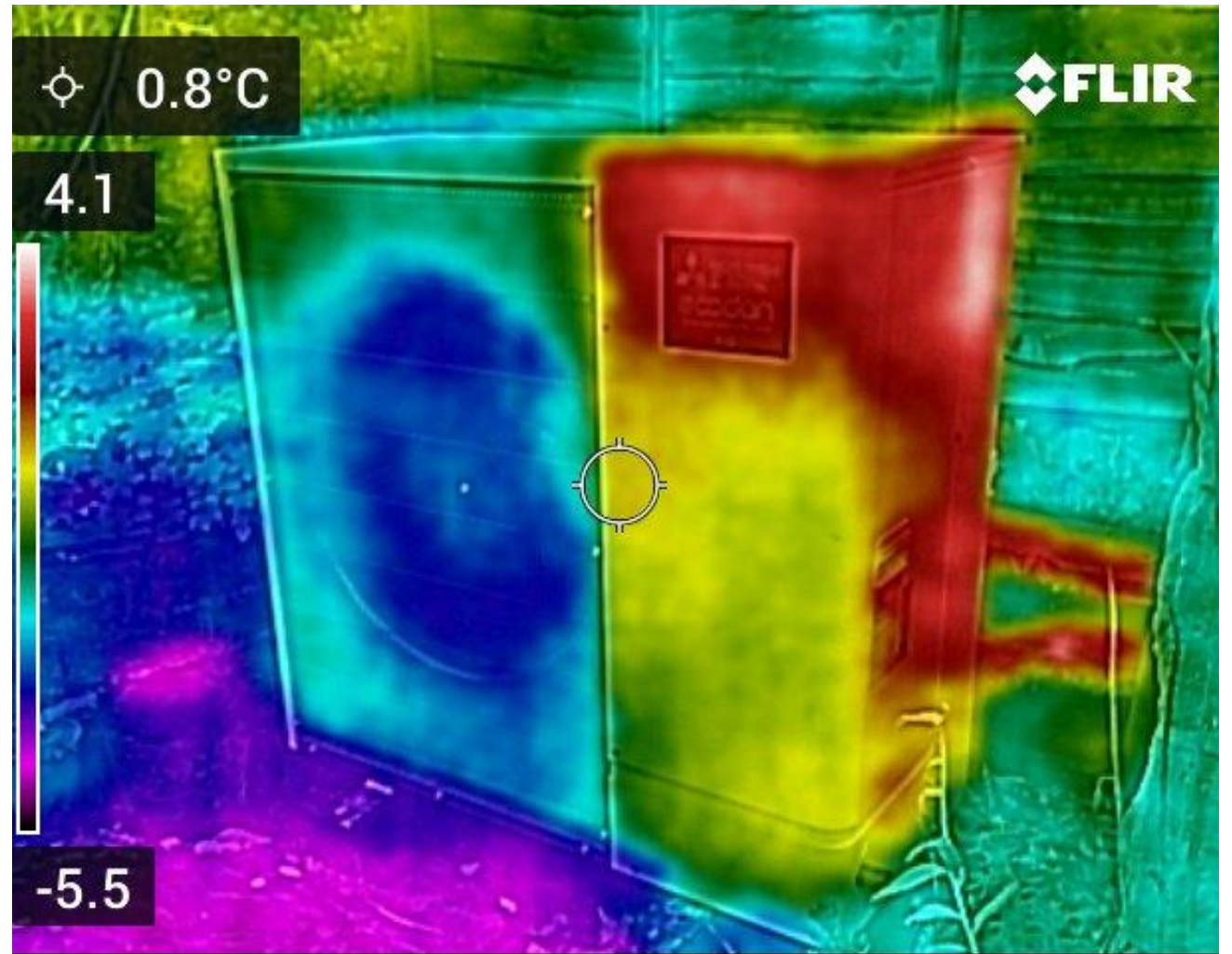




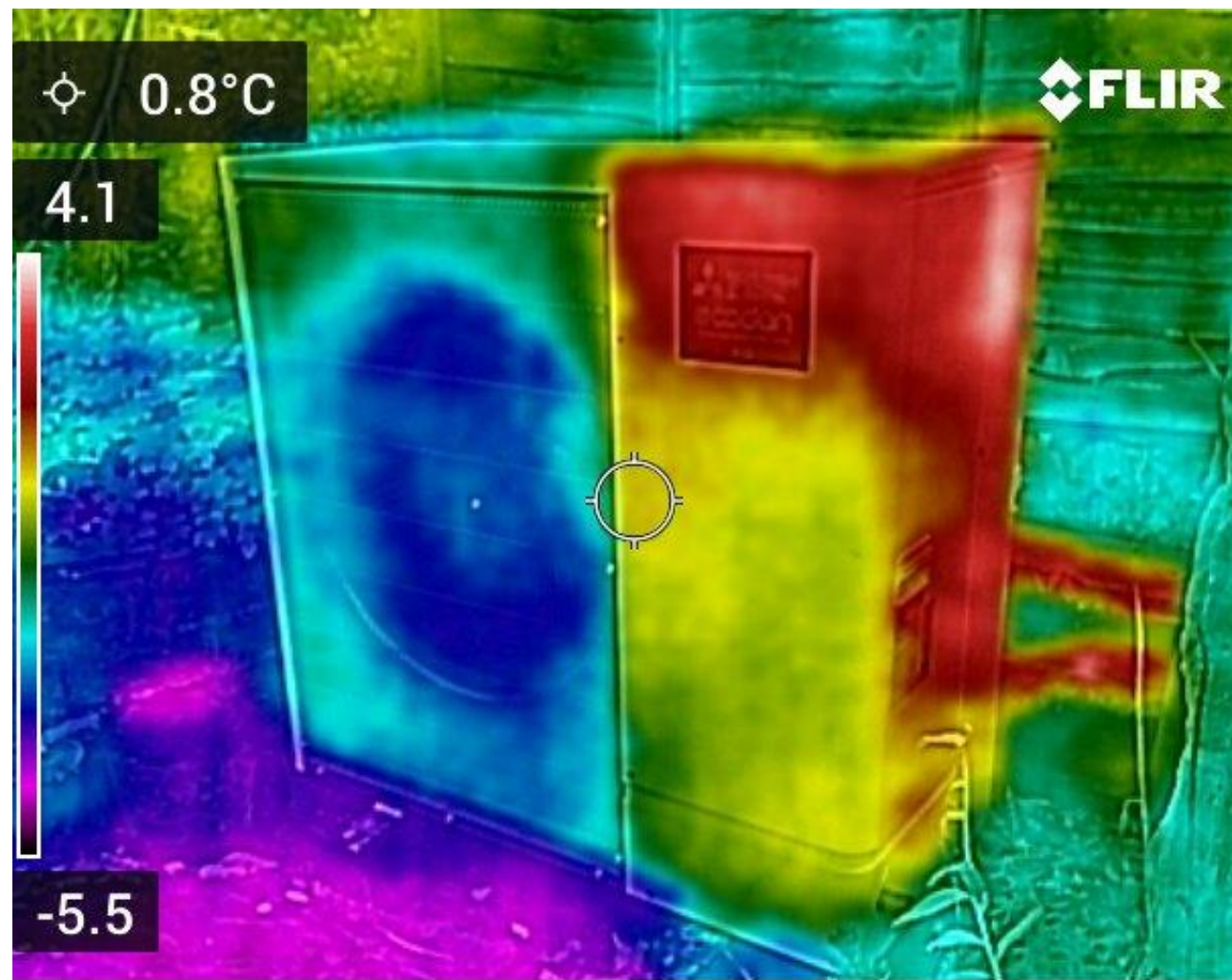


Hallway underfloor heating
pipe.





An air source heat pump (ASHP).





- My Air Source Heat Pump

- Dan Barrett



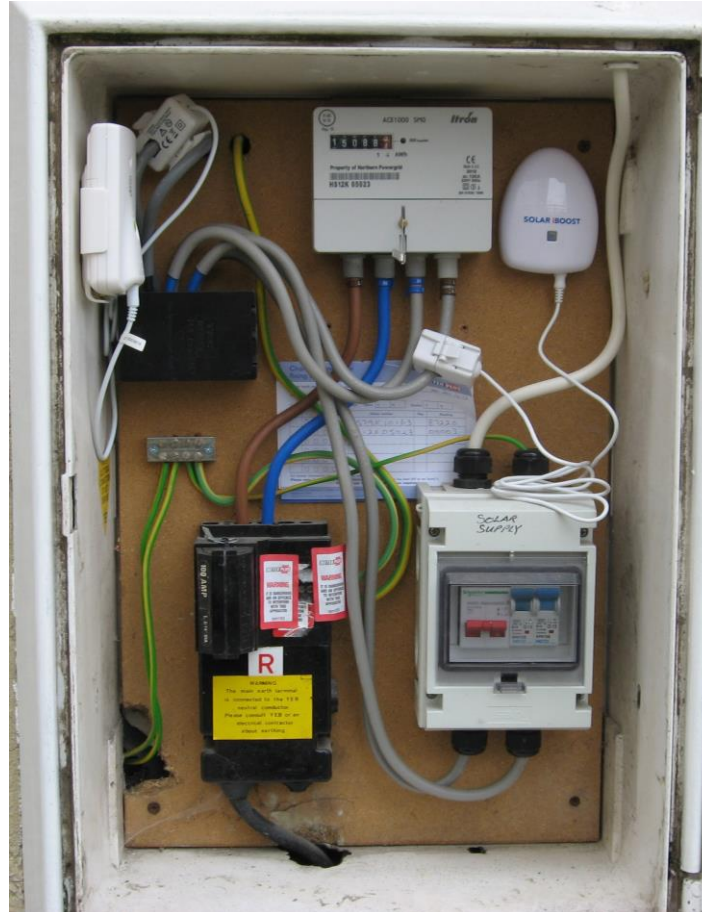
- Solar Panels on my roof

- Richard Walton















- My Electric Car(s)

- David Johnston



Vehicle Range

Mini 100miles

Tesla 310miles

BMW 320miles



25,000 miles driven



22,000 miles driven



17,000 miles driven



Charging Time

- At home
 - 6 hours adds ca. 160 miles
- Public charging
 - Ca. 20 visits in 64,000 miles
 - Ca. 100 miles in 20 minutes (80kWh)





Costs & Efficiency

At home overnight energy costs

- Winter c3 miles per kwh
- Summer c4 miles per kwh

Public charging at 80p per kwh

A petrol car doing 40 mpg

7p per kwh

c2.4p per mile

c1.8p per mile

c25p per mile

c15p per mile



Summary

- Higher purchase price
- Home charger essential
- Public charging infrastructure needs improving
- Lower maintenance costs
- **Savings of c2,500 kgs CO2 per annum**





- The Professionals



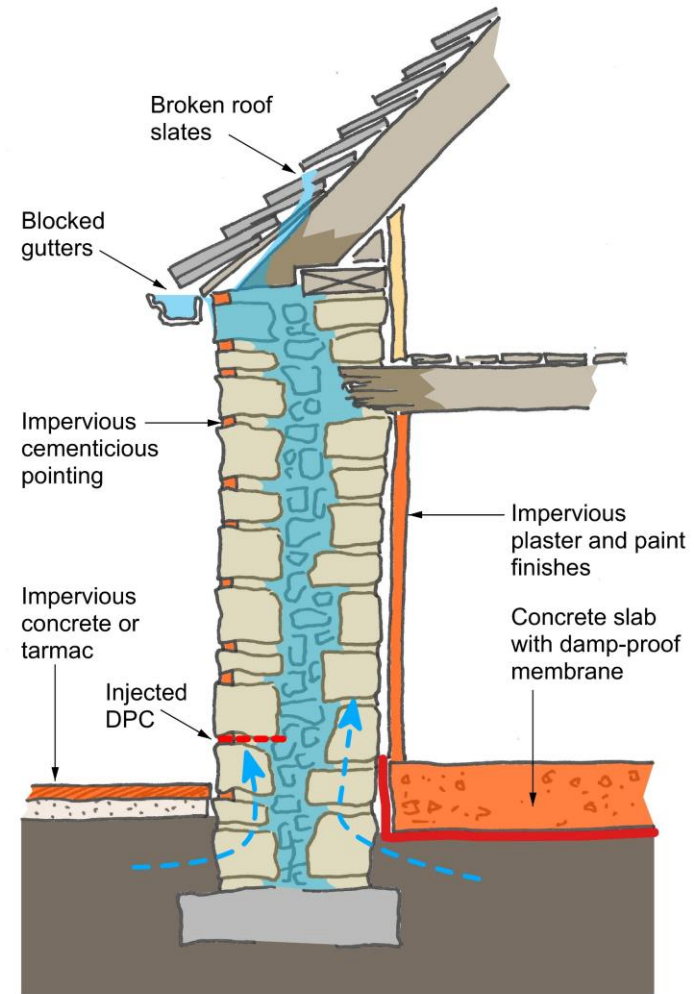
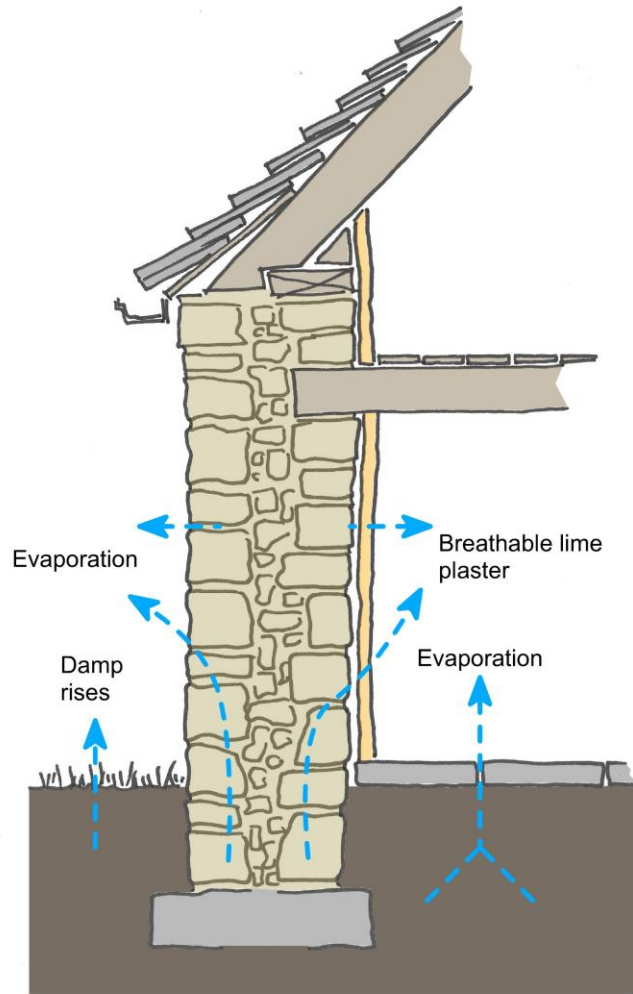
- The Architect

The background of this section is a photograph of a large, multi-story stone building with a complex facade, featuring many windows and stone masonry. A semi-transparent white rectangular box is overlaid on the upper part of the image, containing the CAA logo. The logo consists of the letters 'CAA' in a large, bold, green font, followed by a green tree icon and the text 'CLIMATE ACTION ADDINGHAM' in a smaller green font.

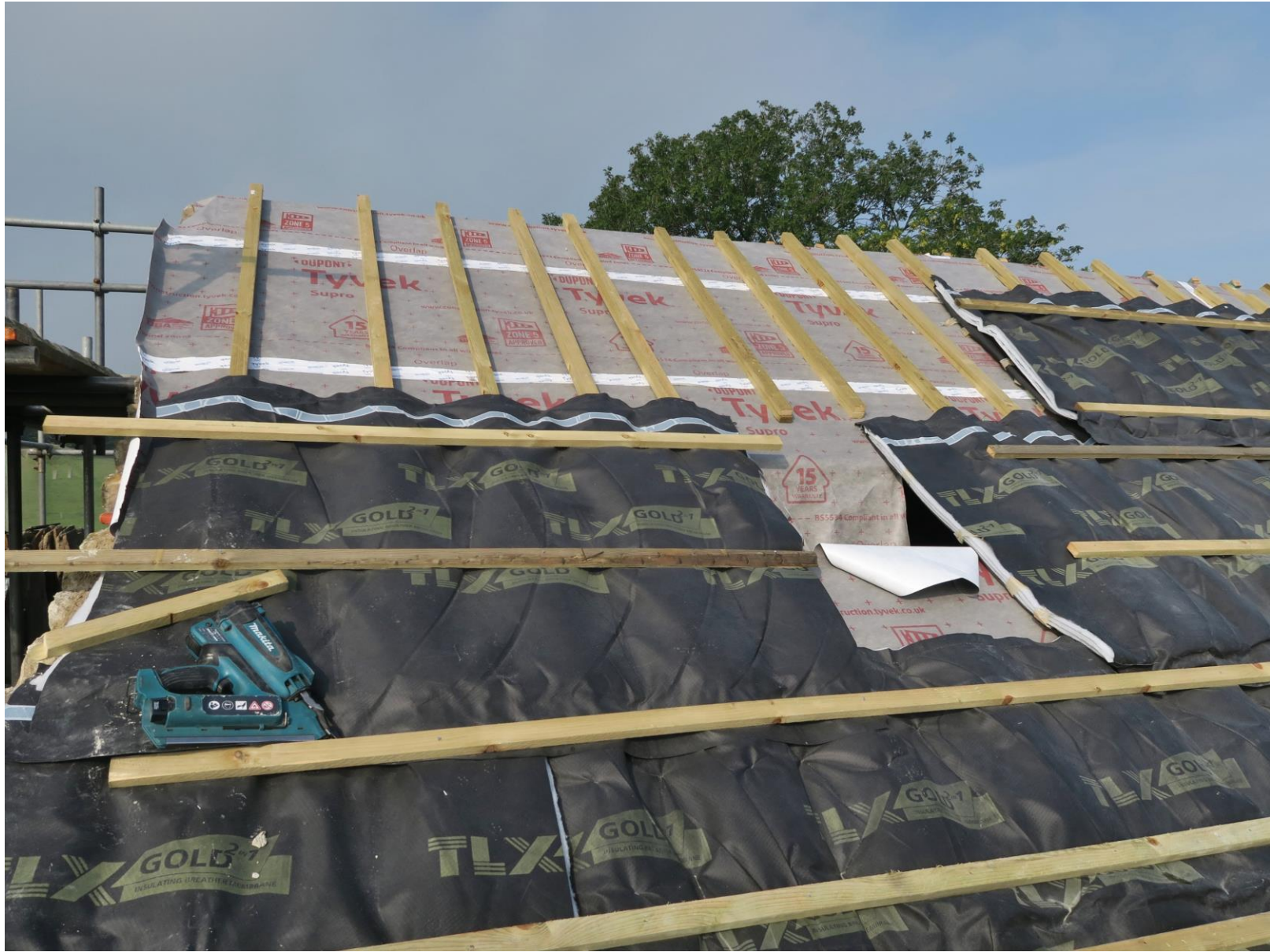
Insulating Older Buildings

Liz Haestier – ARB, RIBA, AABC

overtonarchitects
IDC, Valley Drive, Ilkley, West Yorkshire, LS29 8AL - 01943 601785











- Key points
 - See professional advice
 - Caveat emptor; always use reputable systems, materials, suppliers & installers
 - There are few quick fixes for a whole building
 - Don't be discouraged; help is available



- The Air Source Heat Pump Installer
- Jamie Vickers, Gecko Renewables



- The Solar Panel Installer
- Gavin Andrews, Leeds Solar



- Public Charging Point Network
- Sophie Waite, Project Manager, West Yorks Combined Authority
 - With thanks to Tracy Brabin, West Yorkshire Mayor



**West
Yorkshire
Combined
Authority**

**Tracy
Brabin
Mayor of
West Yorkshire**

Electric Vehicle Charging for West Yorkshire

Our Electric Vehicle Infrastructure Strategy
and plans for the Local Electric Vehicle
Infrastructure (LEVI) programme



Our Electric Vehicle Infrastructure Strategy

Our Electric Vehicle Infrastructure Strategy is our ambitious plan to improve the public electric vehicle charging network in West Yorkshire.

Electric vehicles will help us to reduce transport emissions in our region. More people are choosing to switch to an electric vehicle. However, right now, we don't have enough EV chargepoints in West Yorkshire to prepare us for a future where more people drive an EV.

We have committed to net zero emissions by 2038. In our region, transport creates 32% of all greenhouse gas emissions. 97% of our transport emissions are created by road traffic such as cars and vans. We need to reduce our transport emissions in West Yorkshire if we are going to achieve our net zero aims.

We need a plan for improving electric vehicle charging in West Yorkshire to help more people to be able to choose an EV. Our strategy sets out our ambitions to build a network of public EV chargepoints which are reliable, safe, and well-maintained for the people of West Yorkshire. It includes six strategic principles and three investment priorities to guide us. Our EV Infrastructure Strategy is part of our wider work on transport strategy. It will be a supplementary document to our new Local Transport Plan (LTP) and will support our work on integrated transport.



Strategic Principles

Install more
chargepoints



Create good
coverage across
West Yorkshire

Install the right
chargers in the
right places



Our strategy has six strategic principles which will guide us to make decisions. We want to:

- 1. Increase the number of electric vehicle chargepoints to create a network of chargepoints in West Yorkshire.** We want to install more chargepoints to prepare us for a future where more people will be able to switch to an EV.
- 2. Reduce inequalities and make sure there is good coverage of chargepoints across West Yorkshire.** We want to make sure that, wherever you live in West Yorkshire, you will have an equal opportunity to charge your EV. We want to make sure no areas are left behind.
- 3. Make sure the right chargepoints are in the right places.** We want to make sure that new chargepoints are meeting your needs in your community.

Strategic Principles

Install easy to use,
accessible
chargepoints



Make sure the
charging network is
reliable

Reduce transport
emissions



Our strategy has six strategic principles which will guide us to make decisions. We want to:

4. Make sure that chargepoints are easy to use, fair and accessible for everyone. We want to work with chargepoint operators to make sure you receive a good service and a fair price.

5. Make sure that the network of chargepoints is resilient, reliable, safe and well maintained. We want to make sure you feel confident using chargepoints because you know they will be reliable.

6. Support our goals to reduce transport carbon emissions. We want you to be able to switch to an EV, and to choose to reduce your private car use. We also want you to be able to use renewable energy at chargepoints. We want to reduce the environmental impact of transport in our region.

Investment Priorities

Our strategy has three investment priorities which will help us to focus what we do. We will prioritise:

1. Close to home public charging. Charging at home is often the cheapest and most convenient way to charge. However, people who don't have their own off-street parking cannot charge their EV at home. We will install more on-street and off-street close to home chargepoints, choosing the right type of charger for each location.

2. En route public charging. We will help people to continue their journeys by improving charging on routes where your needs currently aren't being met.

3. Shared transport. Shared transport includes car clubs, shared bike schemes, on-demand buses and mobility hubs. To help us reduce our private car use, we will promote shared transport options through our work to improve EV charging.

More close to
home charging



More en route
charging

Better shared
transport options



Electric Vehicle Infrastructure Strategy and LEVI

Our EV Infrastructure Strategy will help us to improve close to home charging and en route charging through different projects. It will be a supplementary document to our Local Transport Plan.

As part of our EV Infrastructure Strategy we are working on the Local Electric Vehicle Infrastructure (LEVI) programme. LEVI is a grant funded by the Government which helps local authorities to install close to home electric vehicle chargepoints.

We want to hear your thoughts on our EV Infrastructure Strategy and our plans for the LEVI programme.

Electric Vehicle Infrastructure Strategy for West Yorkshire

Improving close to home charging

LEVI programme

More projects to come

Improving en route charging

More projects to come

Local Electric Vehicle Infrastructure Programme

LEVI is a grant funded by the UK Government which helps local authorities to install electric vehicle charging infrastructure. We have been awarded LEVI funding and are working with the West Yorkshire district councils on the LEVI programme.

We want to use LEVI funding to:

- Install new public chargepoints in residential areas close to the homes of people who don't have their own off-street parking.
- Encourage private investment in chargepoints.
- Make sure that EV chargepoints are accessible for more people by installing the right chargers in the right places.
- Help our region to reduce carbon dioxide emissions by making it possible for more people to switch to an EV.

More close to
home charging



More private
investment in
chargepoints

The right chargers
in the right places



Reduce transport
emissions



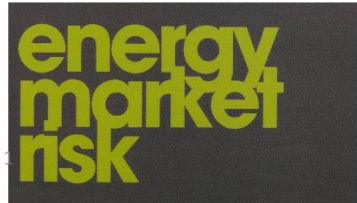


- The Energy Supply Specialist
- Peter Haigh, Energy Market Risk Ltd.



UK Energy Update – Q3 2024

Peter Haigh
Energy Market Risk Ltd



Price Cap

- Direct debit customers using an average amount of gas and electricity will pay **£1,717** a year, a 10% rise compared with now.
- Bills will remain about **£117** a year cheaper for a typical household than in October last year, but analysts say another rise in prices is likely in January.
- Consumer debt has climbed to more than **£3bn**.

How the energy price cap has changed

Typical household's energy bill*



*For a typical household on a price-capped, dual-fuel tariff paying by direct debit

Source: Ofgem

BBC



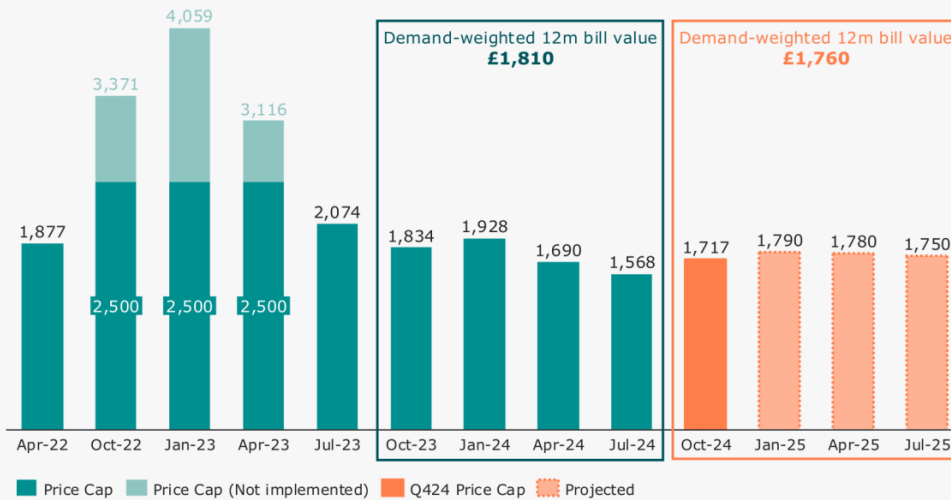
How your bill will change in October

- Gas prices will be capped at 6.24p per kilowatt hour (kWh), and electricity at 24.5p per kWh - up from 5.48p and 22.36p respectively now. A typical household uses 2,700 kWh of electricity a year, and 11,500 kWh of gas.
- Direct debit customers using an average amount of gas and electricity will pay £1,717 a year, a 10% rise compared with now.
- Households on prepayment meters will pay slightly less than those on direct debit, with a typical bill of £1,669.
- Those who pay their bills every three months by cash or cheque will pay more, with a typical bill of £1,829.
- Standing charges - a fixed daily charge covering the costs of connecting to a supply - will go up to 61p a day for electricity and 32p a day for gas, compared with 60p and 31p respectively now, although they vary by region.
- An Energy Supplier is obliged to tell you if they offer a cheaper tariff.

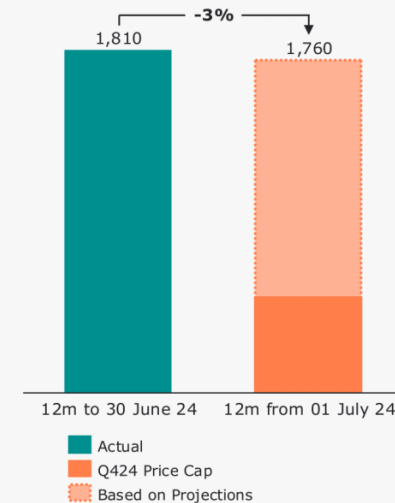
October Price Cap will see little change to annual energy bills - but millions will be worse off this winter



Headline bill values by Price Cap period



12m Weighted bill values



PRICE CAP ANALYSIS | BFY GROUP

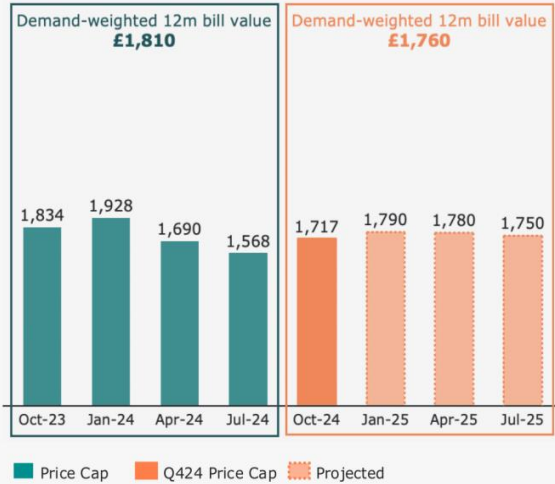
Copyright Bfy Group, 2024 – All rights reserved.

Source: <https://www.bfygroup.co.uk/blog/price-cap-will-rise-to-1-717-in-oct-24>

SVT customers can expect to spend £1,760 from October – is now the time to fix your energy tariff?



Projection of demand-weighted annual bills



12m Fixed Tariffs vs projected 12m bill for SVT customer

	British Gas	E.ON Next	EDF Energy	Octopus	OVO Energy	Utility Warehouse
12m Fixed Tariff	£1,659	£1,659	£1,617	£1,618	£1,620	£1,668*
12m SVT (Price Cap)	£1,760					

With demand-weighted annual bills projected to remain flat into 2025, and many suppliers offering fixed tariffs priced below the headline Price Cap, **now could be an attractive time for customers to fix their energy spend.**

*Note: Fixed Tariff prices collated on 23-Aug for Southeast region
Utility Warehouse tariff includes mobile package



Winter fuel payments scrapped

- The chancellor has announced that winter 2024 will be the first-time pensioners in England and Wales will not be eligible for the payment (worth £100 - £300). More than 11.3 million pensioners received the payment in winter 2022-23.
- Instead, the payments will be restricted to those on benefits and pension credit. **About 850,000 households who are eligible to receive pension credit do not claim it, according to figures released by the Department for Work and Pensions last year.**
- The devolved governments in Scotland and Northern Ireland will have to make a decision on whether to follow the new policy.
- Pension credit is a form of means-tested benefit, which means it's based on income and savings.
- To be eligible for pension credit you need to be above state pension age and have an income of less than £218.15 a week or less than £332.95 as a joint weekly income with your partner.
- Your savings will also be taken into account and could mean you're still ineligible even if you're income is low.
- You may still be eligible despite these factors if you're disabled, care for someone or have housing costs.

What help is available?

- Try your energy provider first - all energy suppliers must offer support to vulnerable customers. Energy Suppliers also have their own support funds to help those who are struggling.

Citizens Advice

(www.citizensadvice.org.uk/consumer/energy/energy-supply/)

National Energy Action

(www.nea.org.uk/)

Money Saving Expert (Martin Lewis)

(<https://www.moneysavingexpert.com/energy/>)

The regulator (Ofgem)

(www.ofgem.gov.uk/information-consumers/energy-advice-households)





What help is available?

Money Helper

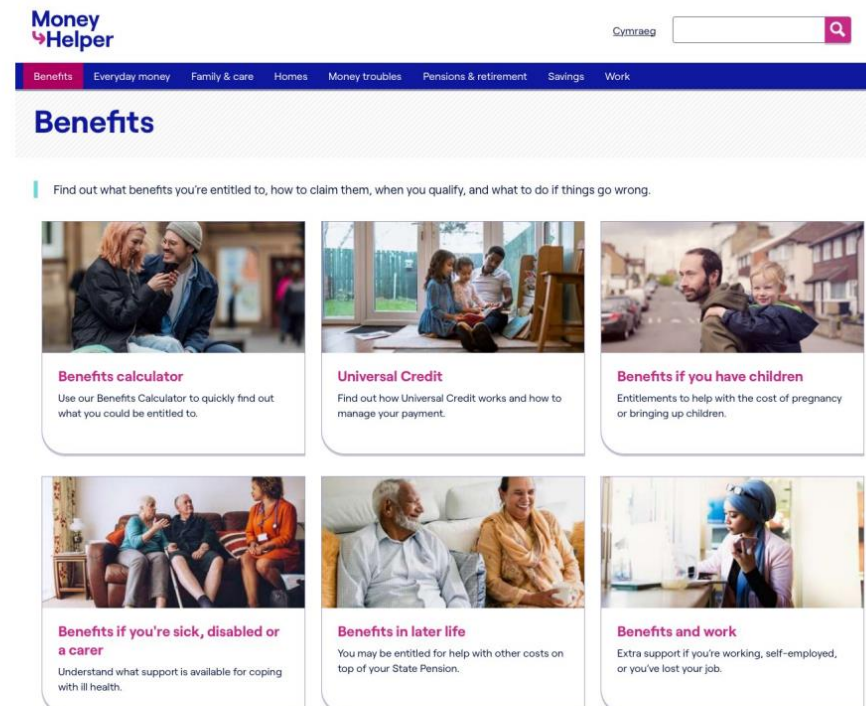
(www.moneyhelper.org.uk/en/benefits)

Money Helper offers free, impartial guidance that's backed by government, and to recommend further, trusted support if you need it.

entitledto

(www.entitledto.co.uk)

entitledto are entirely independent of government and users can use their sites anonymously, equipping themselves with the knowledge and information they need in order to deal with the benefits system with confidence.





- Panel Discussion.



- Panel discussion; key issues
 - What are the barriers that are holding back implementation of these measures?
 - What are the myths that can be busted- or can they?
 - Charging point availability?
 - Air Source Heat Pumps & noise
 - Solar panels & payback?
 - What is the ideal energy configuration of an Addingham property under net zero targets?
 - How can these measures be combined in an optimal way?



- Addingham 2035: an energy vision for the village
- Mareike Schmidt



Zero Carbon Week
23rd – 28th September



Thank you & good night!

Don't forget Saturday, November 9th, between 2 & 6 pm.

Our annual review “How Green is our village 2024”

Displays and talks by our village community groups.