

Why Air Source Heat Pumps Matter

James Gallie, Bath & West Community Energy

Heat Pump Support Project Manager



**GO GREEN
WIDCOMBE**



HOME ENERGY

BWCE

A not-for-profit community energy business.

Tackle climate change through clean energy generation

Help homeowners make their homes more energy efficient and get off gas and oil

Support for community projects.

- Non-profit, since 2010
- Renewable energy projects – enough to



Aim of this session

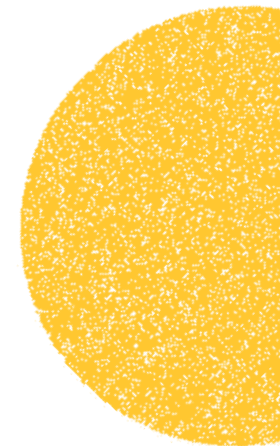
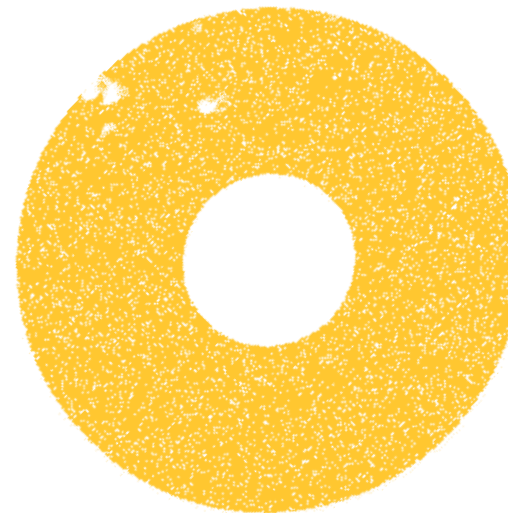
Householder lived experience

For a technical deep dive, join our webinars from
7-9pm on

[Tuesday 23rd September](#)

[Wednesday 22nd October](#)

Please see our website to sign up



Why Air Source Heat Pumps Matter

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Decarbonising heat is one of the toughest Net Zero challenges. ASHP's are a proven technology to tackle it



Air source heat pumps are key because they:

- Use electricity (which is decarbonising rapidly)

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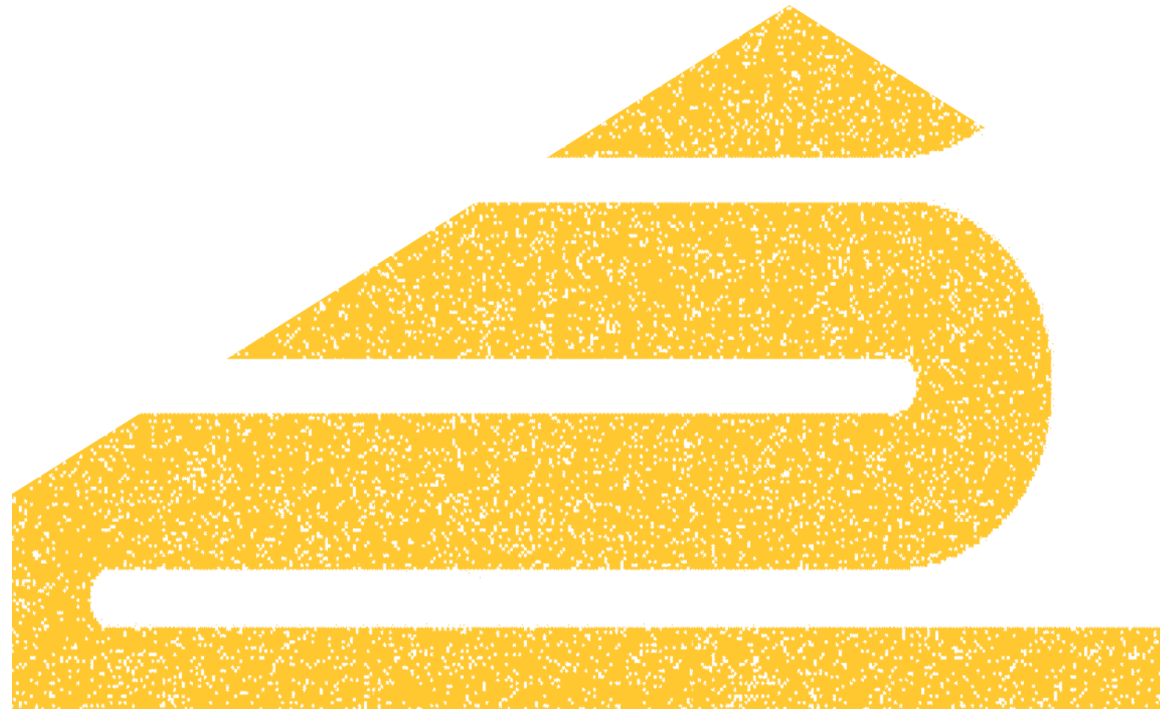
- Use electricity (which is decarbonising rapidly)
- **About 4 times more efficient than a gas or oil boiler** (Delivers 3–4 units of heat per 1 unit of electricity)

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- Use electricity (which is decarbonising rapidly)
- **About 4 times more efficient than a gas or oil boiler** (Delivers 3–4 units of heat per 1 unit of electricity)
- Are suitable for **most housing types**, even without good insulation and air tightness

The UK Government National Target

600,000 heat pump installations per year by 2028



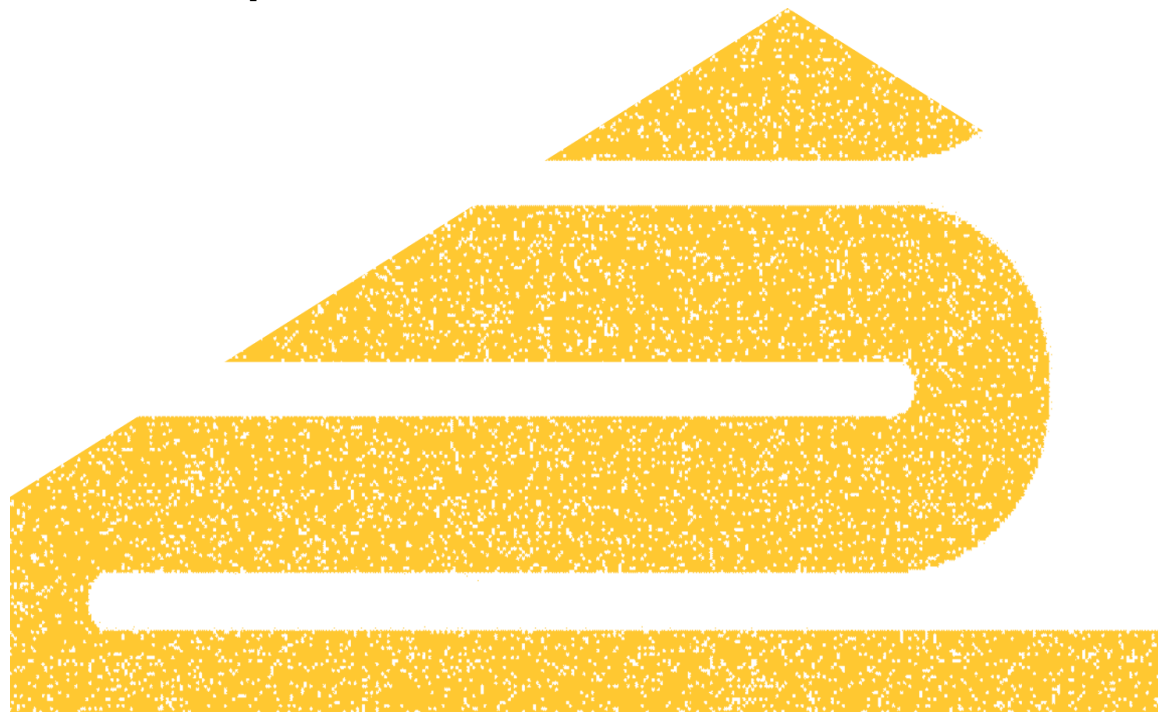
The UK Government National Target

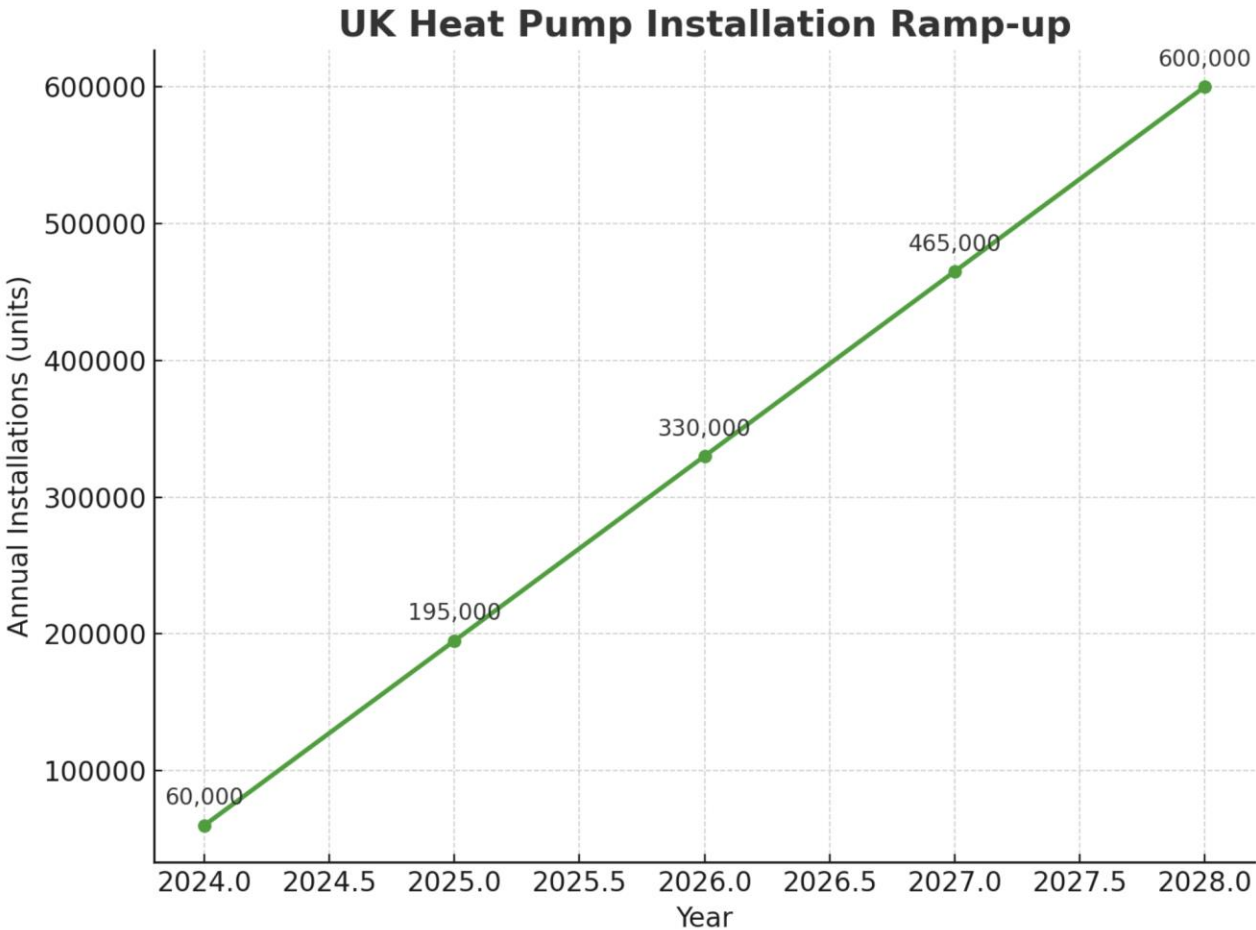
600,000 heat pump installations per year by 2028

60,000 heat pump installations in 2024



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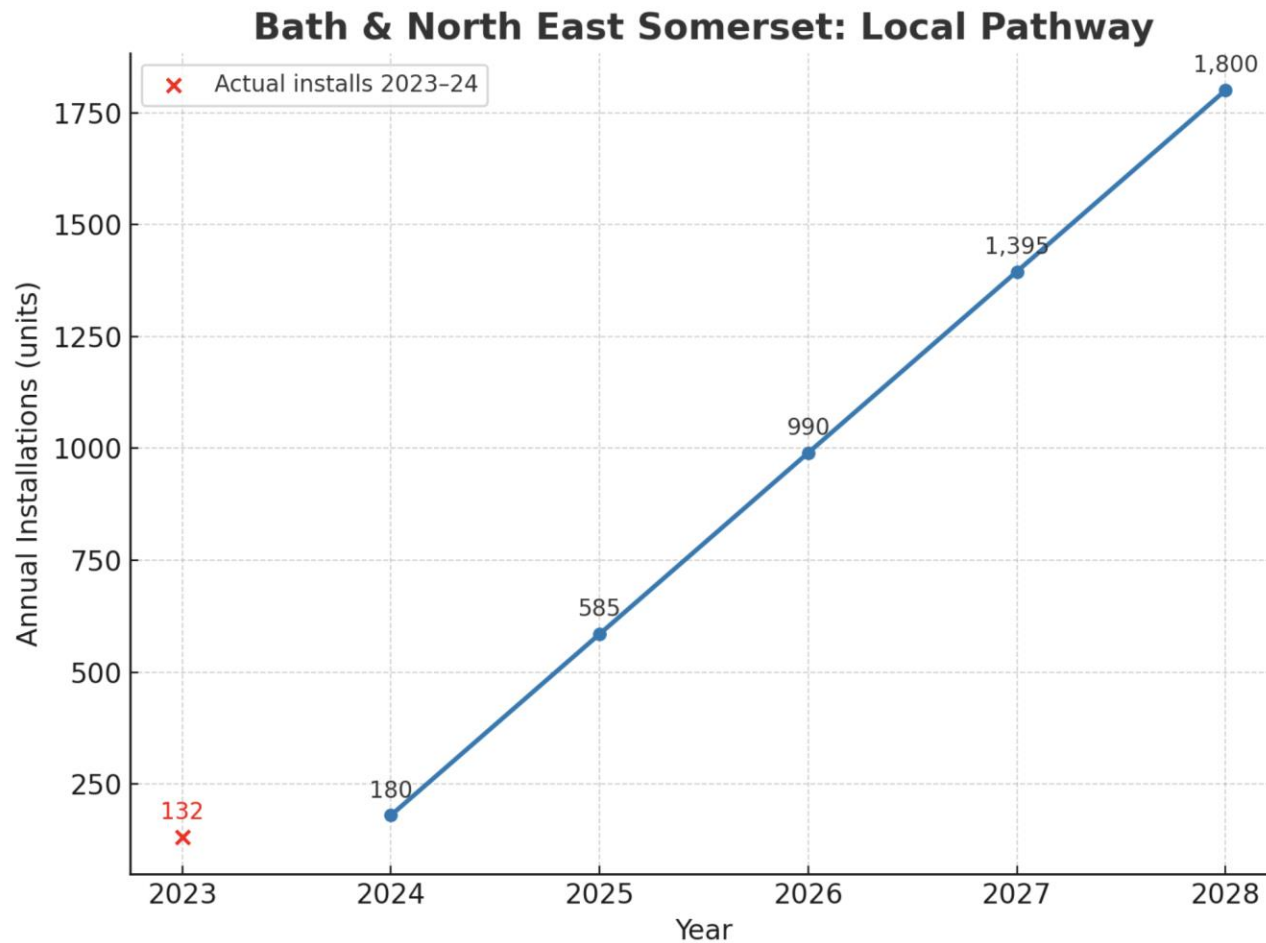
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ENERGY**

How does this translate in B&NES ?

BWCE Bath & West
Community
Energy

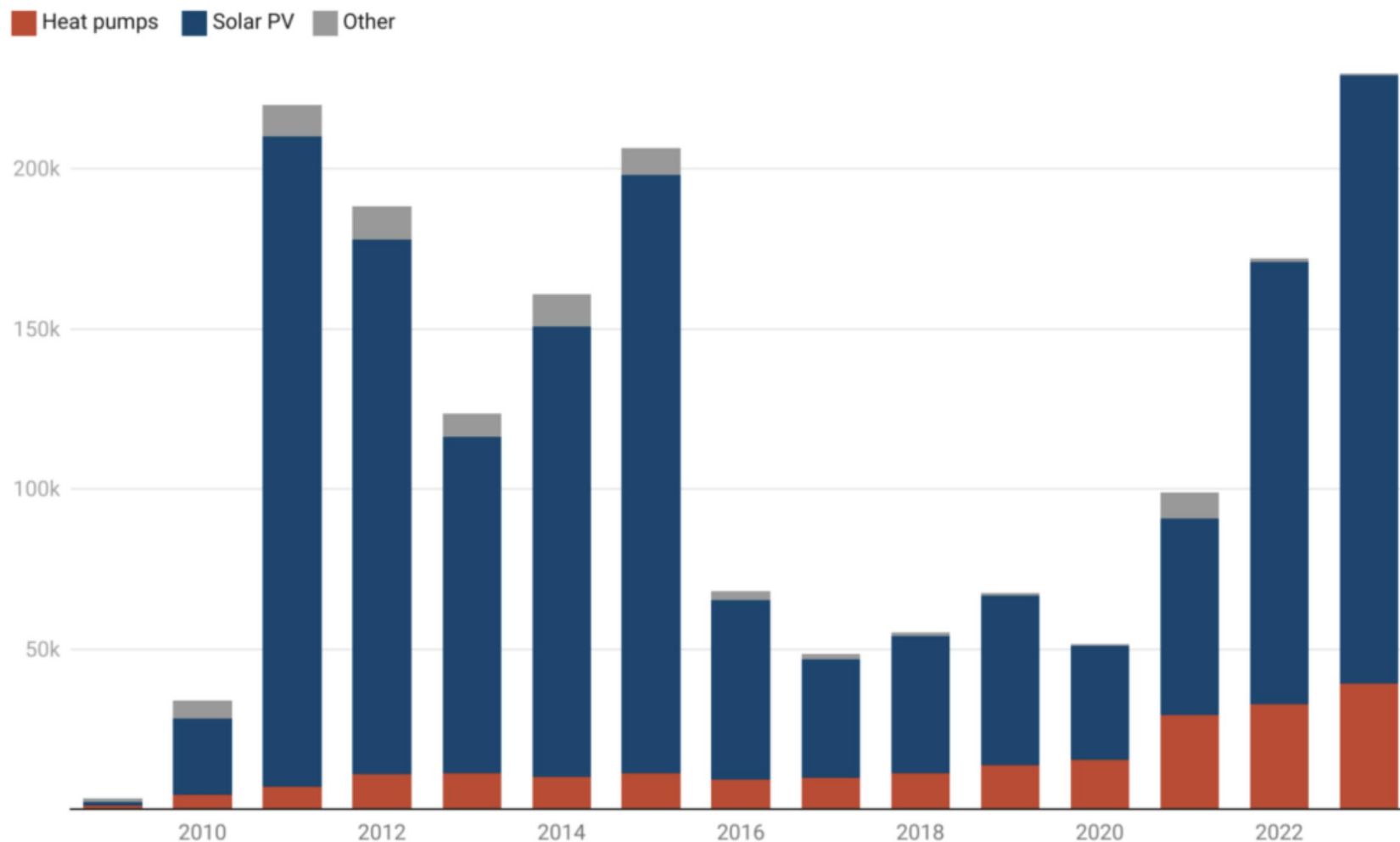
How does this translate in B&NES ?

	National target installs pa	B&NES share (0.3%) pa
2024	60,000	132
2025 first 6 months	c.75,000	103
2025	195,000	~585
2026	330,000	~990
2027	465,000	~1,395
2028	600,000	~1,800



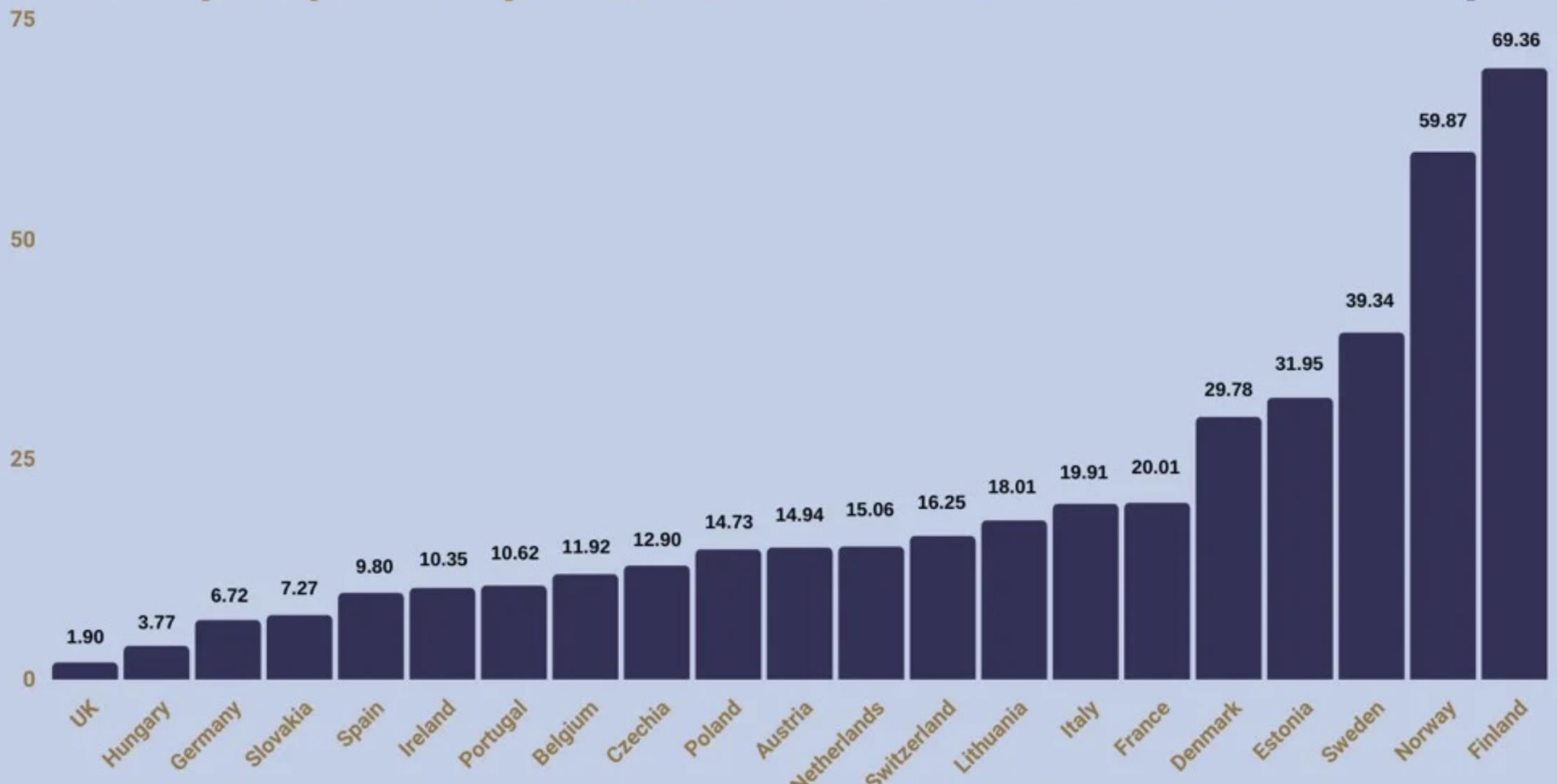
UK heat pumps and solar drive home installation record in 2023

Registered low-carbon technology installations in UK homes, 2019-2023



Source: MCS.

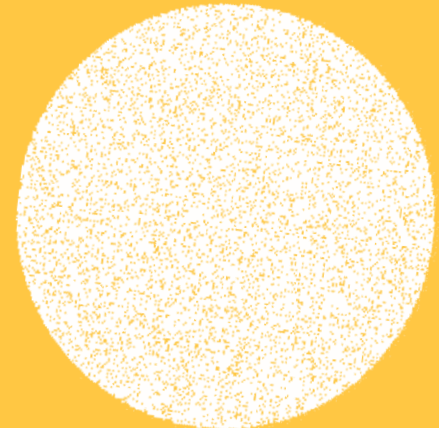
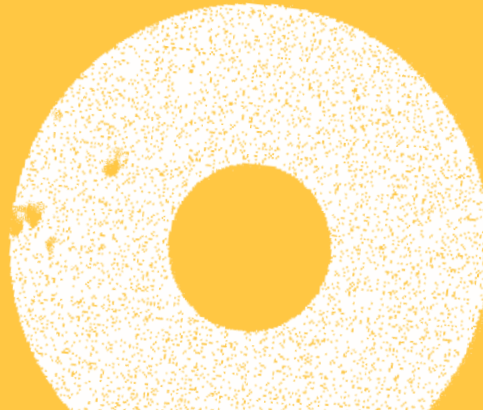
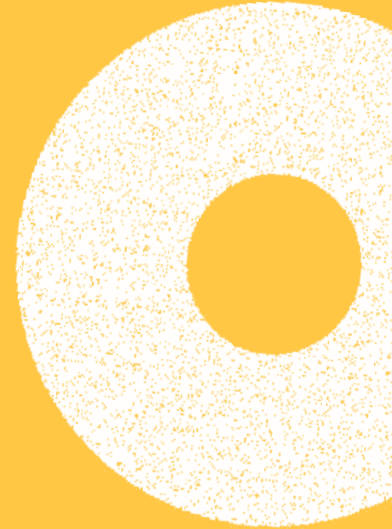
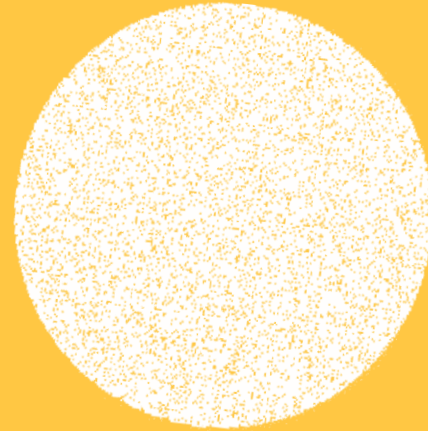
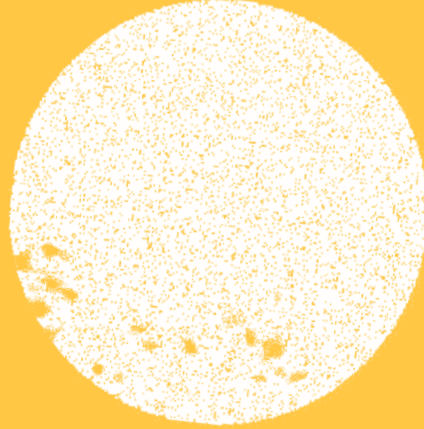
Heat pumps sold per 1,000 households in 2022



Carbon Savings

Measure	Impact on performance	Estimated Cost	Average carbon payback time ¹	Carbon saved after 20yrs ²
Top up loft insulation (from 100mm to 300mm)	U-Value improves from 0.5 to 0.16 ³	£1500	1 ½ years (fp)	-2%
Install 100mm insulation on a previously uninsulated solid wall	U-Value improves from 1.5 to 0.4	£10,000	1-5 years (fp)	-10%
Replace old double-glazed windows with new high efficiency units	U-Value improves from 2.8 to 1.4	£8,500	Over 25 years (fp)	+2% (fp)
Replace single-glazed windows with high efficiency double glazed units	U-Value improves from 4.8 to 1.4	£8,500	13 years (sp)	-2% (net increase in carbon) (sp)
Replace a gas boiler with an air source heat pump	Heating fuel changes from gas to electricity, and system efficiency improves from 90% to 350%	£8,500 (after BUS grant) ⁴	Under 1 year (fp)	-69% (fp)

Should I wait?



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Will Hydrogen come along?



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Will Biogas come along?

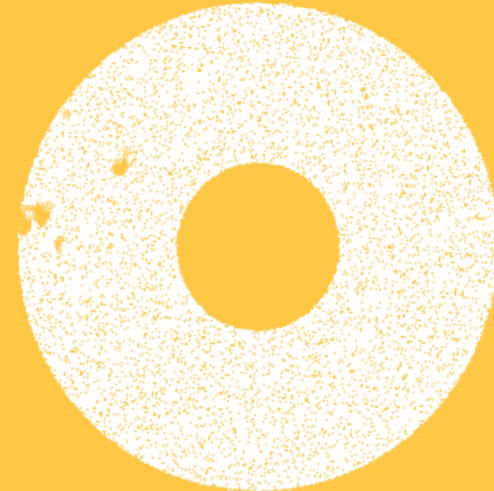
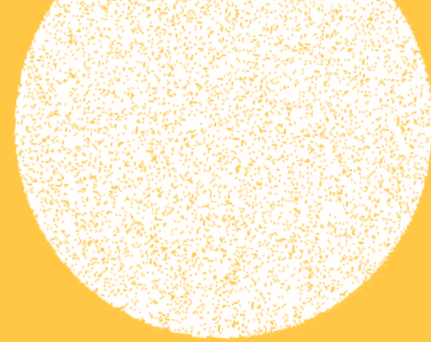
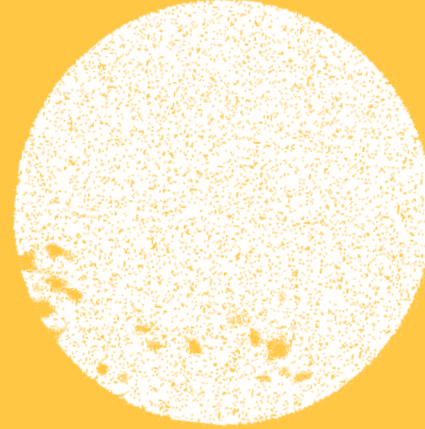


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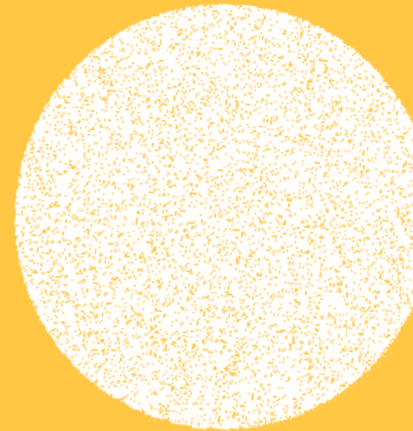
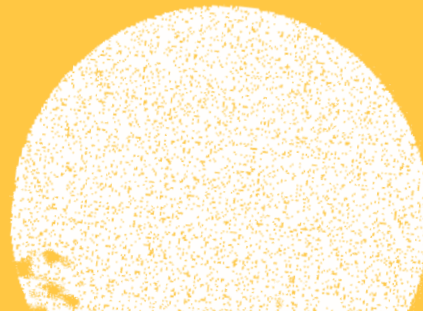
Will Biogas come along?

Will there be newer, better heat pumps next year?



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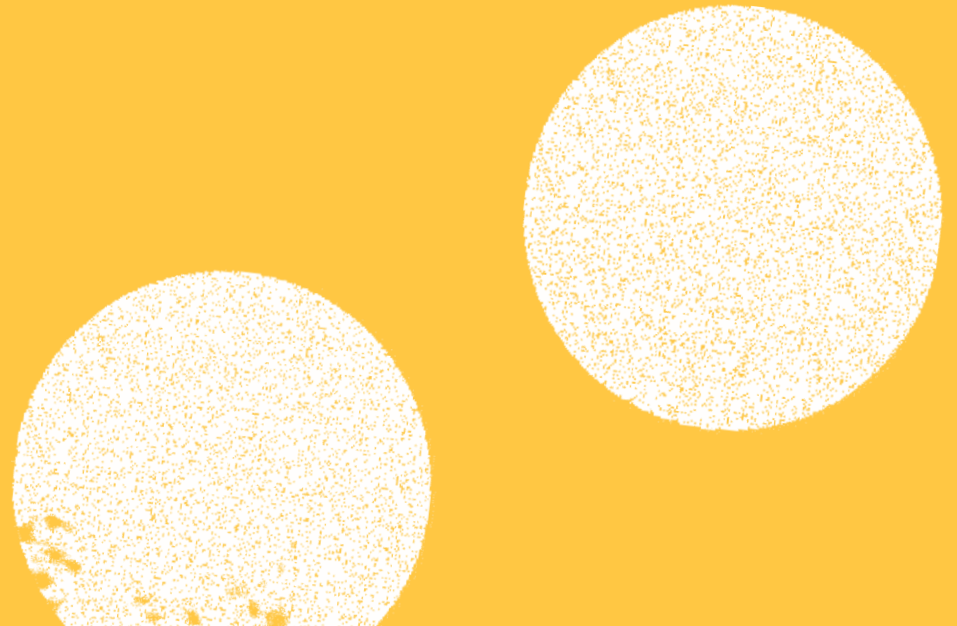
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That's the equivalent of 2-3 transatlantic return flights



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That's the equivalent of 2-3 transatlantic return flights!

.....or eating 1263 large burgers made with British Beef!



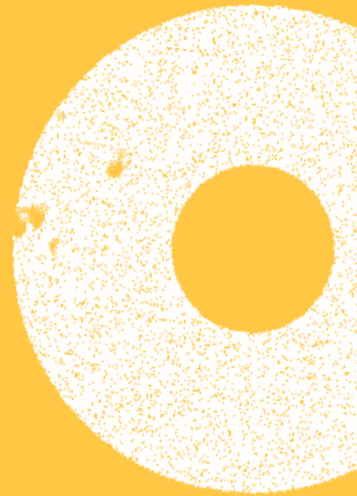
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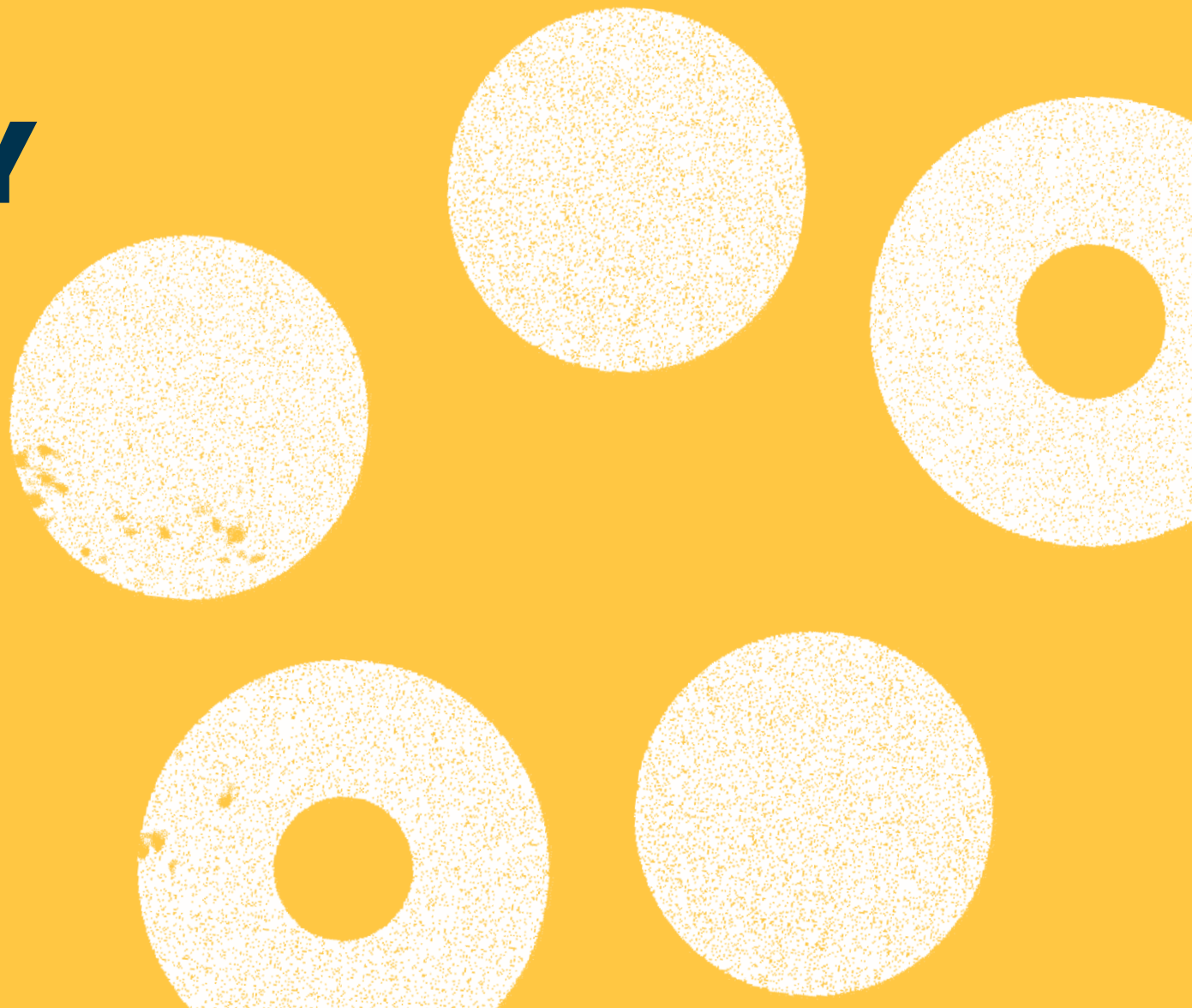
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Government BUS Grant £7500.

SUMMARY



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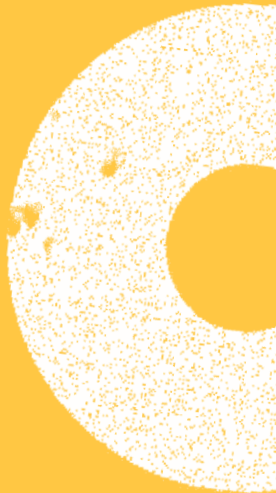
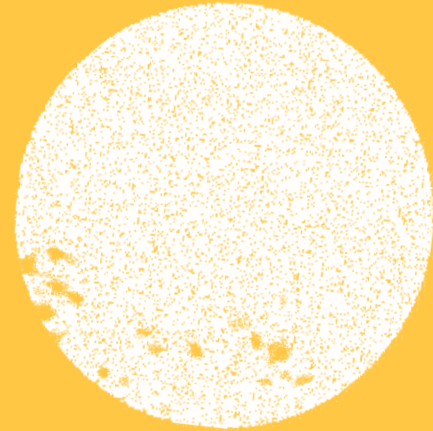
Heat Pumps are a proven technology to decarbonize home heating



SUMMARY

Heat Pumps are a proven technology to decarbonize home heating

We need to massively increase uptake to meet our Net Zero targets

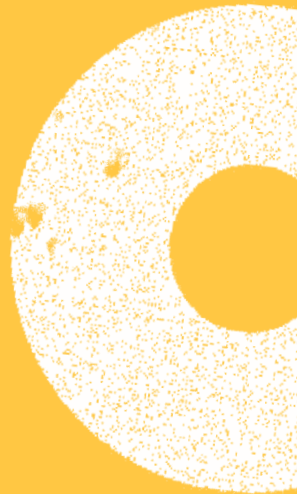
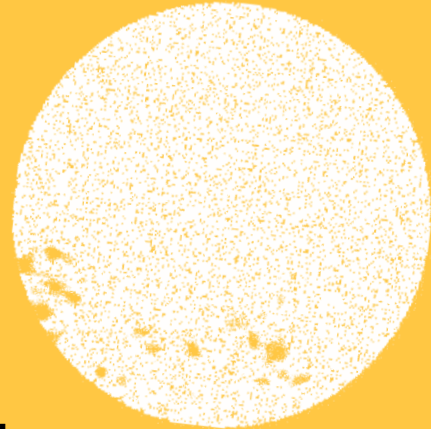


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Heat Pumps are a proven technology to decarbonize home heating

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We all depend on the 'able to pay' to install heat pumps to meet our Net Zero targets



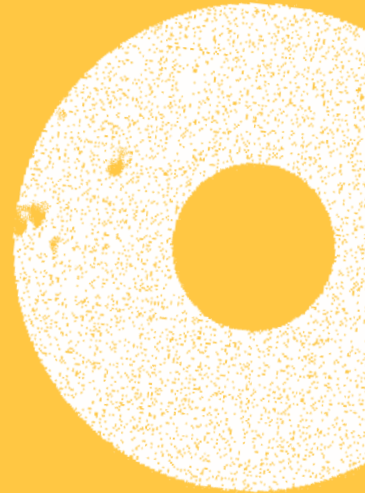
SUMMARY

Heat Pumps are a proven technology to decarbonize home heating

We need to massively increase uptake to meet our Net Zero targets

We all depend on the 'able to pay' to install heat pumps to meet our Net Zero targets

Each year you wait, your gas boiler emits more than 2 tonnes of CO₂



Should I wait?

Every year you wait is another 2.2 tonnes CO₂ emissions from your gas boiler

That's the equivalent of 2 transatlantic flights

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Volatility with Oil and Gas could cause a surge in demand later on

BUS Grant coupled with Lendology loan makes it more affordable

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Next Steps

- BWCE Home Energy – free activities and paid services



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- **OR** Retrofit West partnership with Heat Geek – if you know you want a heat pump, they part-fund an installer assessment



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FURTHER INFO...



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Retrofit West

<https://homeowners.retrofitwest.co.uk/heating-systems/>



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Heat Pump Assessments

<https://www.bwce.homeenergy.coop/heat-pump-assessments>



Information



Heat Pumps

Data

As the UK moves towards net-zero emissions, heat pumps are emerging as a key technology for decarbonising home...

[Read story](#)

EPC Ratings across Widcombe

Local Information

The Office for National Statistics (ONS) is a source of lots of different types of information. One such...

[Read story](#)

Electricity Usage

Data

This first graph shows the Overall Average Annual Electricity Usage (kWhr)/Meter across Widcombe. This data is from the...

[Read story](#)

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Register for free BWCE
Heat Pump Webinars 7pm:

23rd September
22nd October

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