



THE CLIMATE EMERGENCY HACKATHON

The Just Llamas

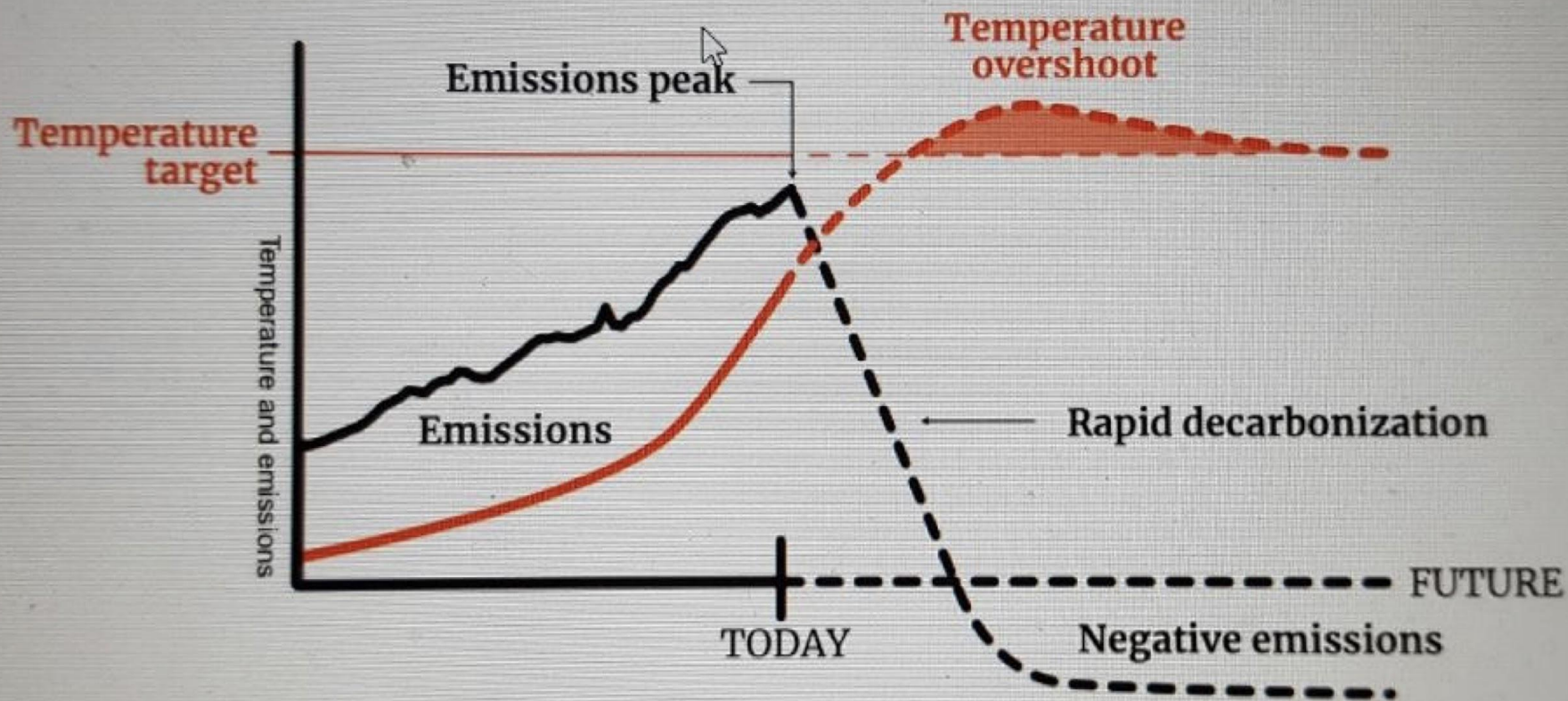
Alex, Ameya, Breandán, Francisco & Ian

How might we ...

Use Smart(er)

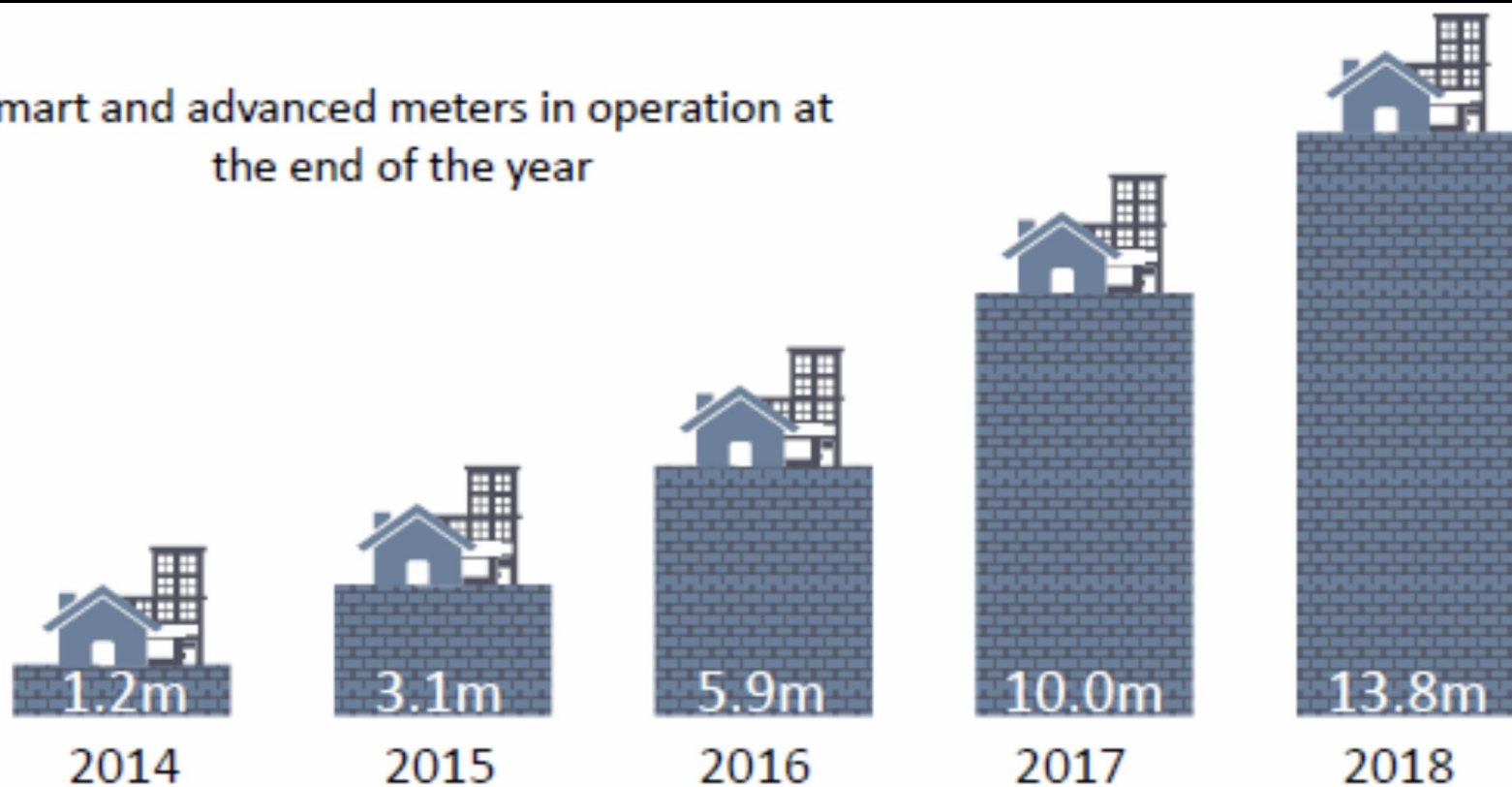
**Meters to socially
decarbonise?**

Decarbonisation isn't a nice-to-have -
decarbonisation is the whole game.



**Smart Meters
won't work on
their own**

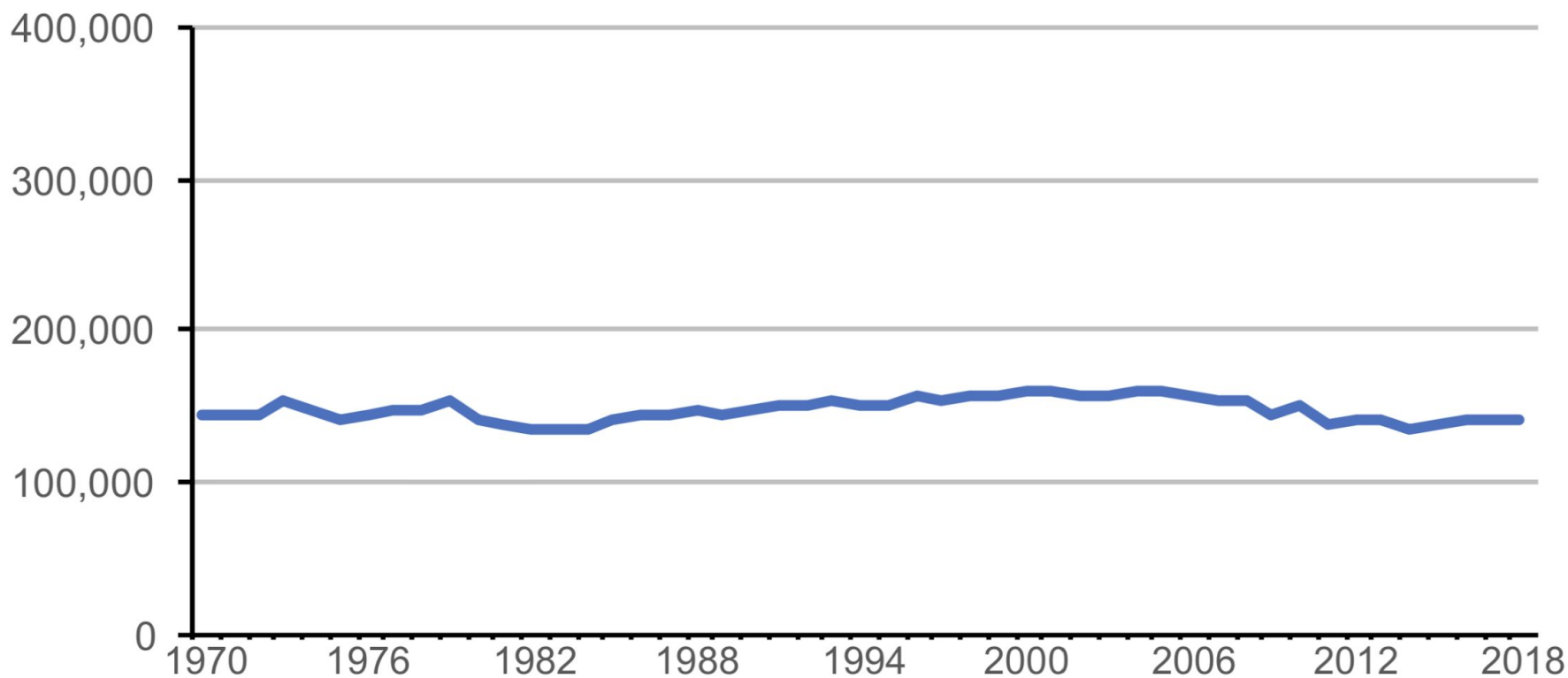
Smart and advanced meters in operation at
the end of the year



Direct feedback

There is a range of robust international evidence demonstrating that real-time energy feedback can help consumers reduce their energy consumption.²⁸ In Great Britain, large-scale trials (the Energy Demand Research Project, EDRP) showed that a combination of a smart meter and a real-time feedback display reduced consumption by 2-4% on average and that this impact was sustained over two years.²⁹ To help consumers realise energy consumption reduction benefits

Final Energy Consumption (mtoe)



Combining carbon caps and social persuasion

Budget

Today

£0.74



£0.98



Electricity now



£0.11
p/h

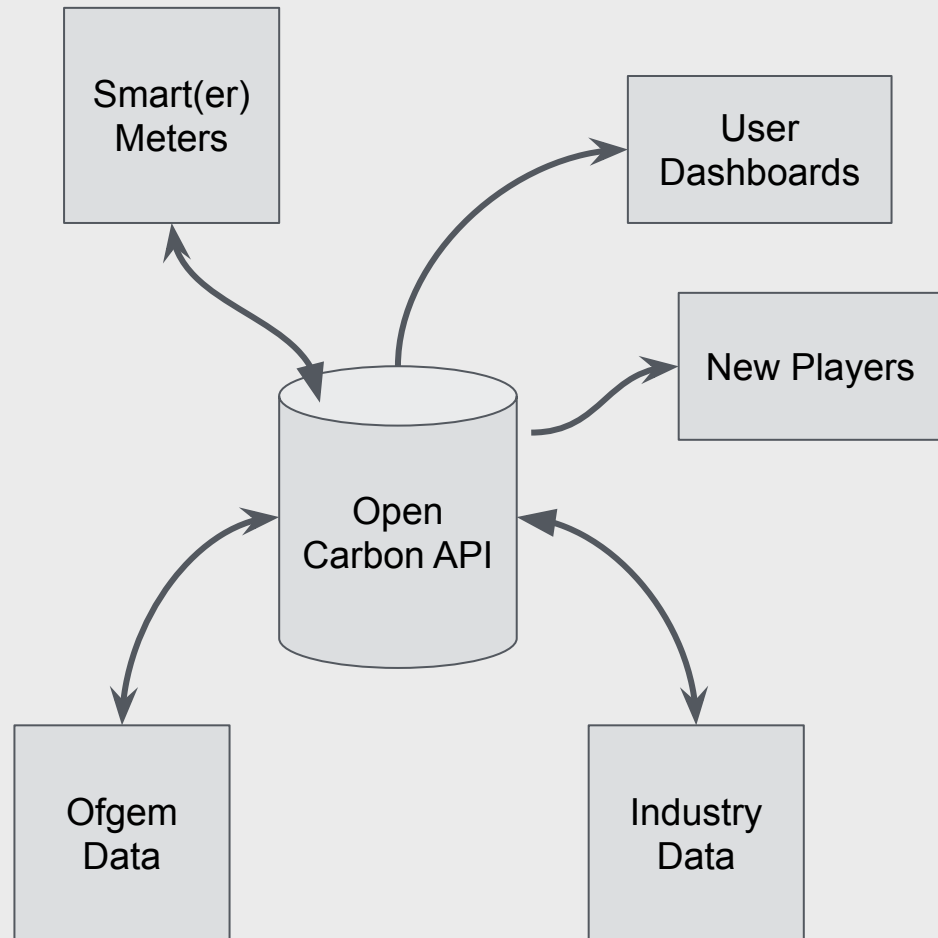
menu



tariff

1. An Open API enables a user to choose to share their energy data with us

**Make
things
open,
it makes
things
better**



2. Now we can Benchmark the user's carbon footprint against similar areas and premises ...

Your Supplier: British Gas

Your consumption this month



Electricity

700 KWh



Gas

900 KWh

[Find out how we calculate limits](#)

Your carbon footprint

**494.4 kg
CO₂e**

This is classed as a medium carbon emission rate.

[See how we arrive at our scores.](#)

W14 Carbon Footprint

**2,830.7 kg
CO₂e**

This is classed as a high carbon emission rate.

[See how we arrive at our scores.](#)

Nationwide Carbon Footprint

**163.5 Mt
CO₂e**

This is classed as a medium carbon emission rate.

[See how we arrive at our scores.](#)

Your Supplier: British Gas

Your consumption this month



[Find out how we calculate limits](#)

Your carbon footprint

**591.6 kg
CO₂e**

This is classed as a medium carbon emission rate.
[See how we arrive at our scores.](#)

W14 Carbon Footprint

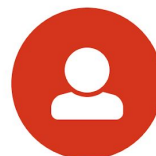
**2,830.7 kg
CO₂e**

This is classed as a high carbon emission rate.
[See how we arrive at our scores.](#)

Your friends' footprints



Joe Bloggs
320 kg CO₂e



Jane Bloggs
640 kg CO₂e



Jim Bloggs
500 kg CO₂e

Your Energy Journey to Net Zero

Information of your consumption

What is your energy consumption? (KWh)



What percentage is your energy renewable? (%)



Your renewable percentage is: 50

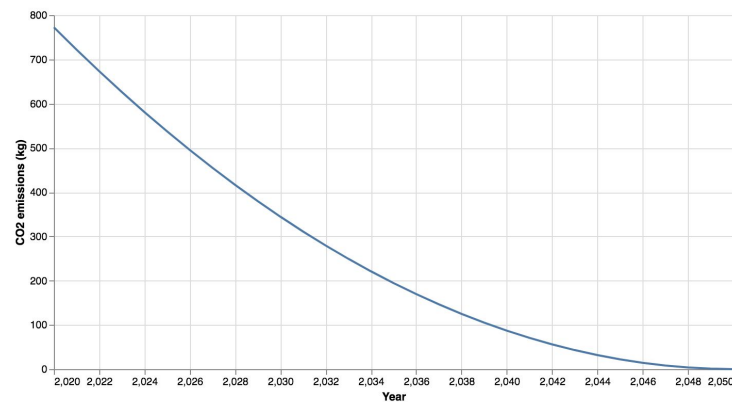
Your non-renewable percentage is: 50

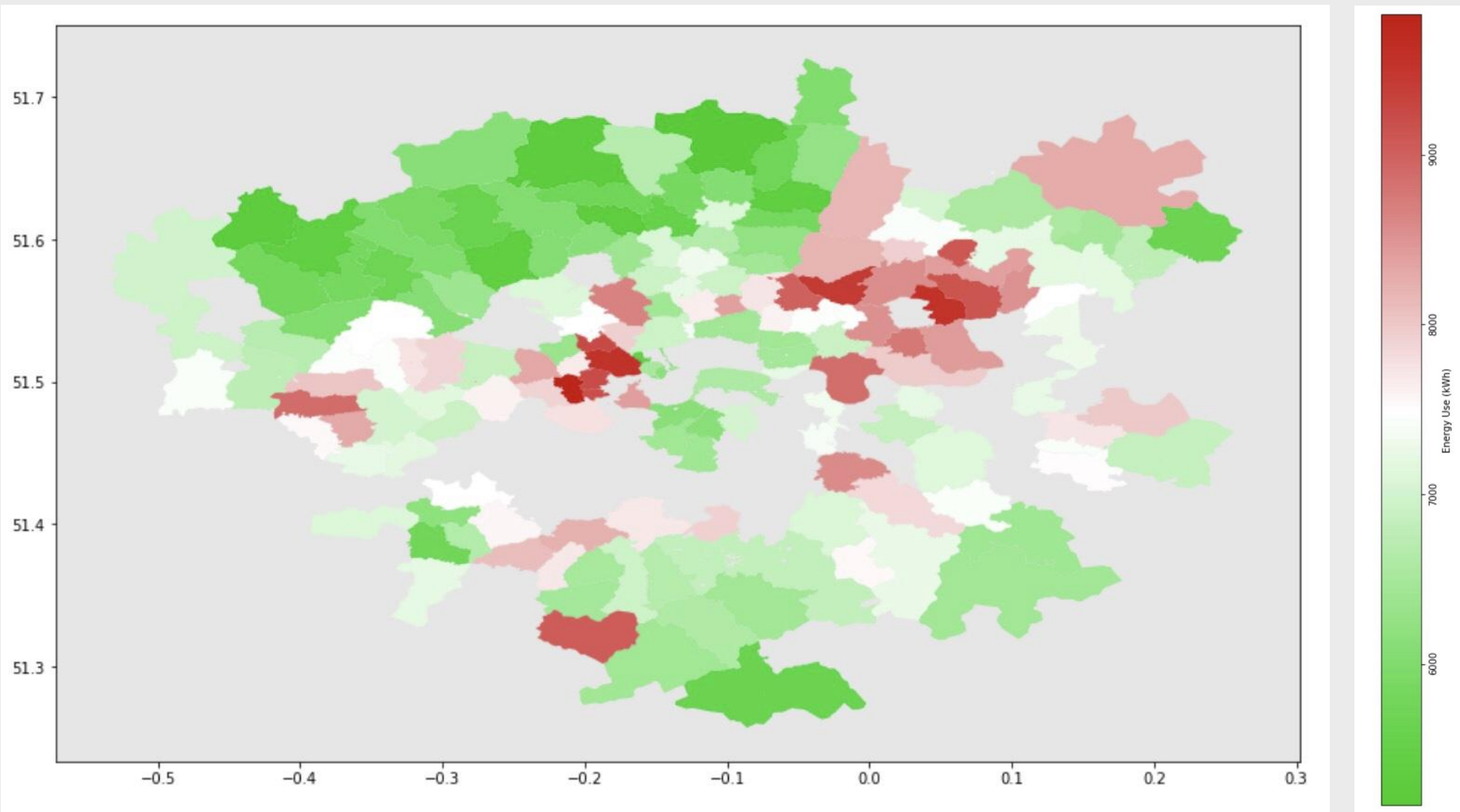
Carbon emissions are: 0.309 x non-renewable generation

Your estimated carbon emissions are: 772.5 kg

Information of your journey to zero emissions

How quickly will you decarbonise?





3. We give users a social nudge to show off their progress

Social persuasion:

Relies on our desire to belong to a community.

Social proof:

People are more inclined to adopt an approach taken by others in their community.

Social norm:

People are inclined to conform to established rules and expectations of their community.



10 images

[Property details](#) [Floorplan](#) [Map & Nearby](#) [Market stats](#)

2 bedrooms 1 bathroom 1 reception room

Features

- ★ Roof Terrace
- ★ Open Plan
- ★ Available from 1st Apr 2020
- ★ Unfurnished
- ★ A well presented and spacious split level first, second and third floor (with entrance at first floor level) apartment
 - ★ Situated within close proximity to local shops, Tufnell Park Tavern gastro pub, local parks and Tufnell Park (Northern Line) underground station
- ★ Spacious accommodation (approximately 854 Sq Ft / 88 Sq M including verres storage and restricted head height areas)
 - ★ Spacious reception offering views over the surrounding local area
- ★ Two double bedrooms
 - ★ Separate equipped kitchen which leads directly to the roof terrace
- ★ Bathroom
 - ★ Large reception room
- ★ Unfurnished
 - ★ Sole agent

Last 30 days: 44 page views

Since listed: 353 page views

Description

Available from 1st April 2020. A well presented and spacious split level first, second and third floor (with entrance at first floor level) unfurnished apartment situated within close proximity to local shops, Tufnell Park Tavern gastro pub, local parks and Tufnell Park (Northern Line) underground station. The accommodation (approximately 854 Sq Ft / 88 Sq M) comprises: Spacious reception offering views over the surrounding local area, two double bedrooms, bathroom and separate kitchen which leads directly to the roof terrace. Sole agent.

[View more](#)

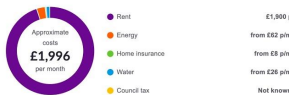
You could get
Ultrafast broadband
 Up to 200 Mbps (Source: Ofcom)

Links for this property

- EPIC
- Brochure
- See all residential properties to rent in Tufnell Park
- Report listing

Estimated running costs

Based on available 3rd party data



CO2 Emissions

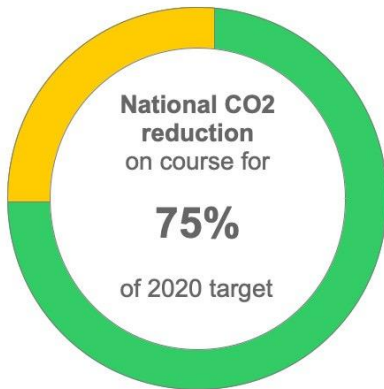


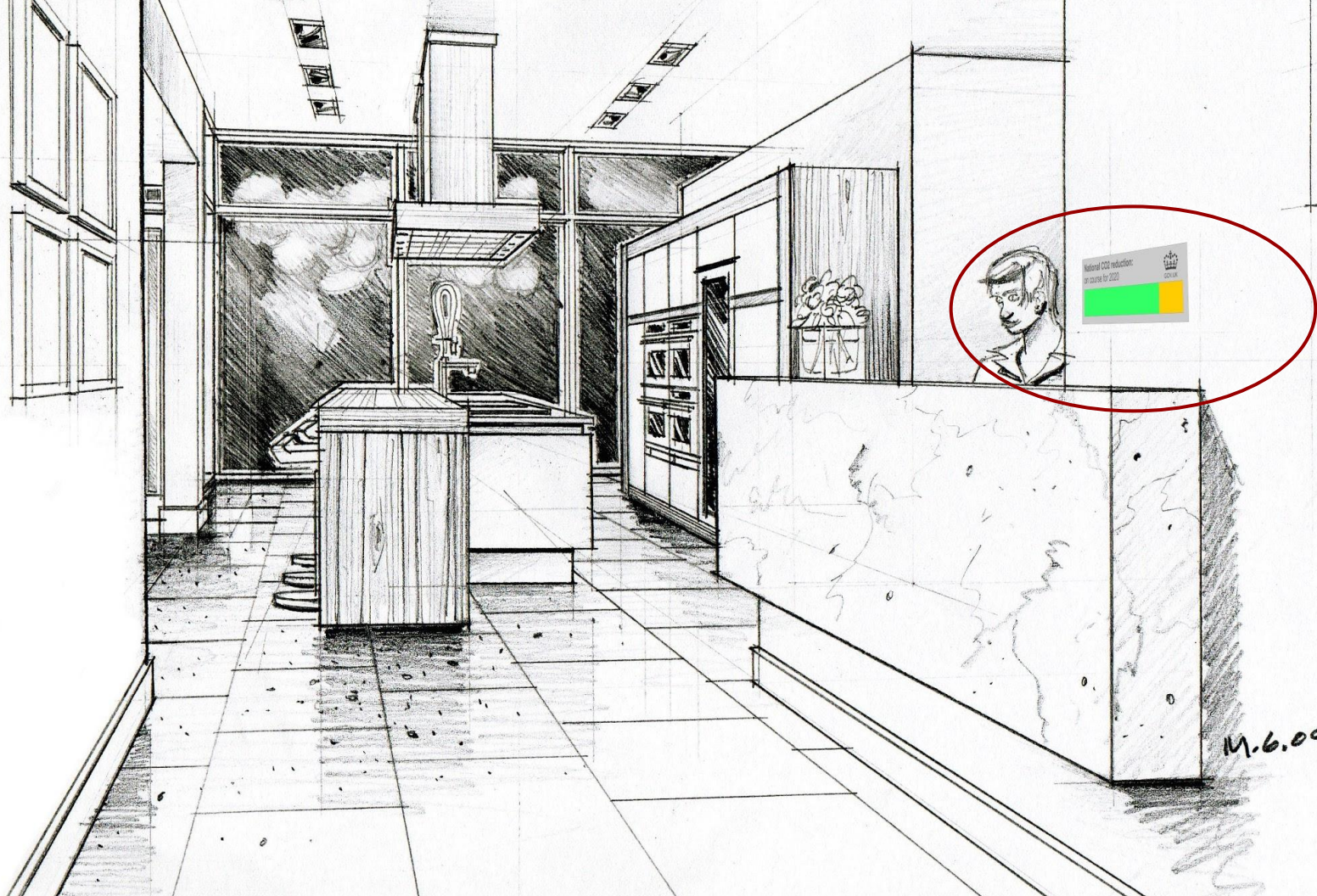
Could you afford to buy?

Monthly payment	Deposit	You may be able to borrow
£1900	£30000	£603,563
Interest rate	Repayment term	Find out more

In partnership with **NatWest**

CO2 Emissions





KITCHEN
www.kit
01564 77



M.6.09

[Andrew](#)[Home](#)[Find Friends](#)

Andrew Huckvale



News Feed



Messenger

Explore



Groups



Pages



Fundraisers



Events



Friend lists



See more...




Ian Huckvale

19 January at 20:36 ·



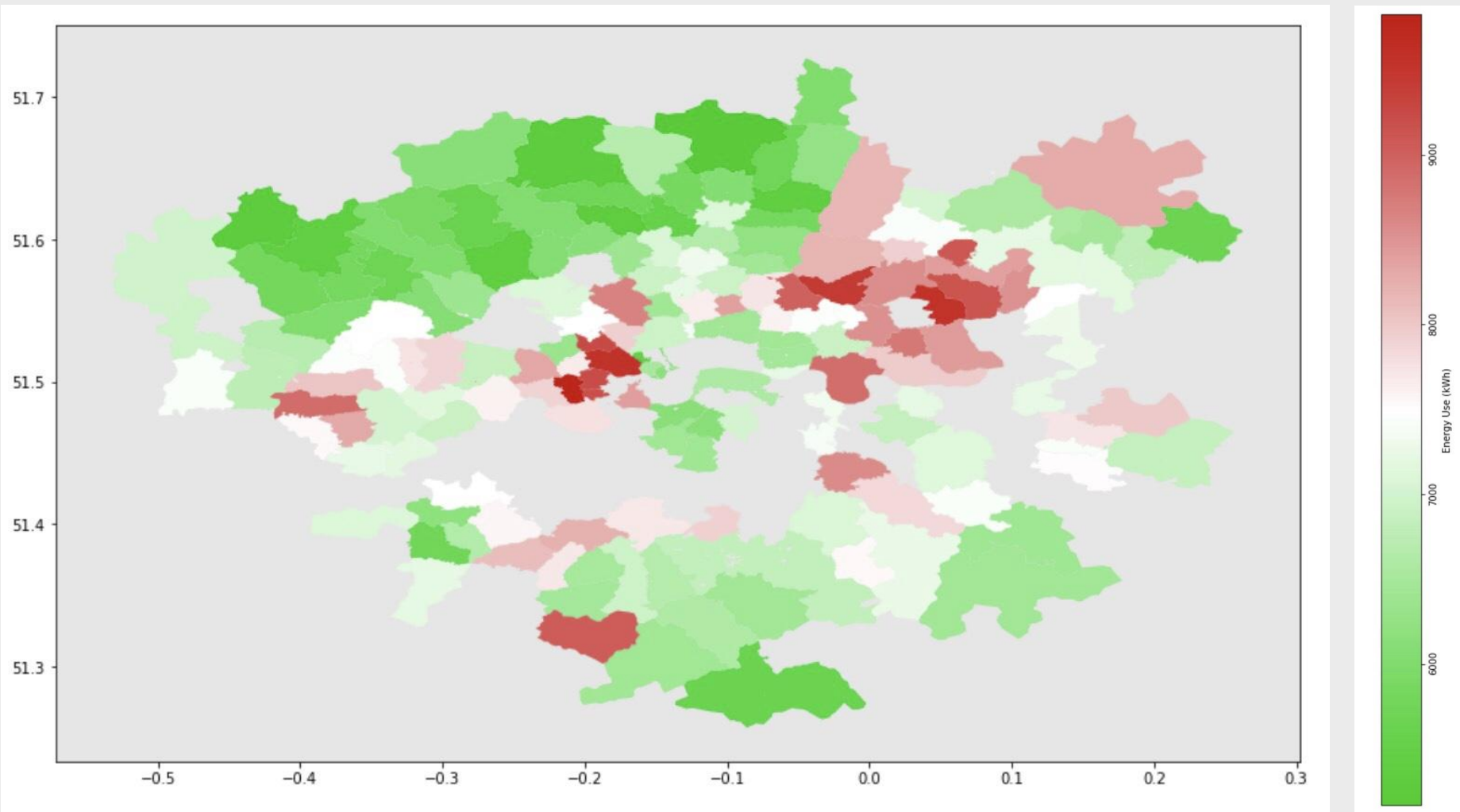
CO2 Emissions:
How are you
doing?



Ian is on track for the
National CO2 Emission
Target

Take the test

**How do we
test our social
carbon caps?**



We propose a
one-year controlled
trial to engage with
real users.

Rollout plan - Trial protocol

Hypothesis: people will be more motivated to adjust their consumption to meet CO2 emission targets if there is a feedback loop.

Grouping

- Control group
 - see CO2 and energy usage data based on their own data only
- Experiment group
 - see CO2 and energy usage data from control group
 - have access to tools enabling them to compare their energy usage data to others in their social network
 - are given tools to enable them to publicly share their energy and energy usage performance, on their own website and display in buildings

Both groups will be given a list of recommended interventions to take to reduce their energy usage and resulting CO2 emissions.

Sampling and recruitment

- Trial subjects will be people and businesses who have smart meters fitted.
- Option A:
 - Trial will be run initially in 10 postcode regions, selected to be comparable based on demographics, climate and energy usage patterns.

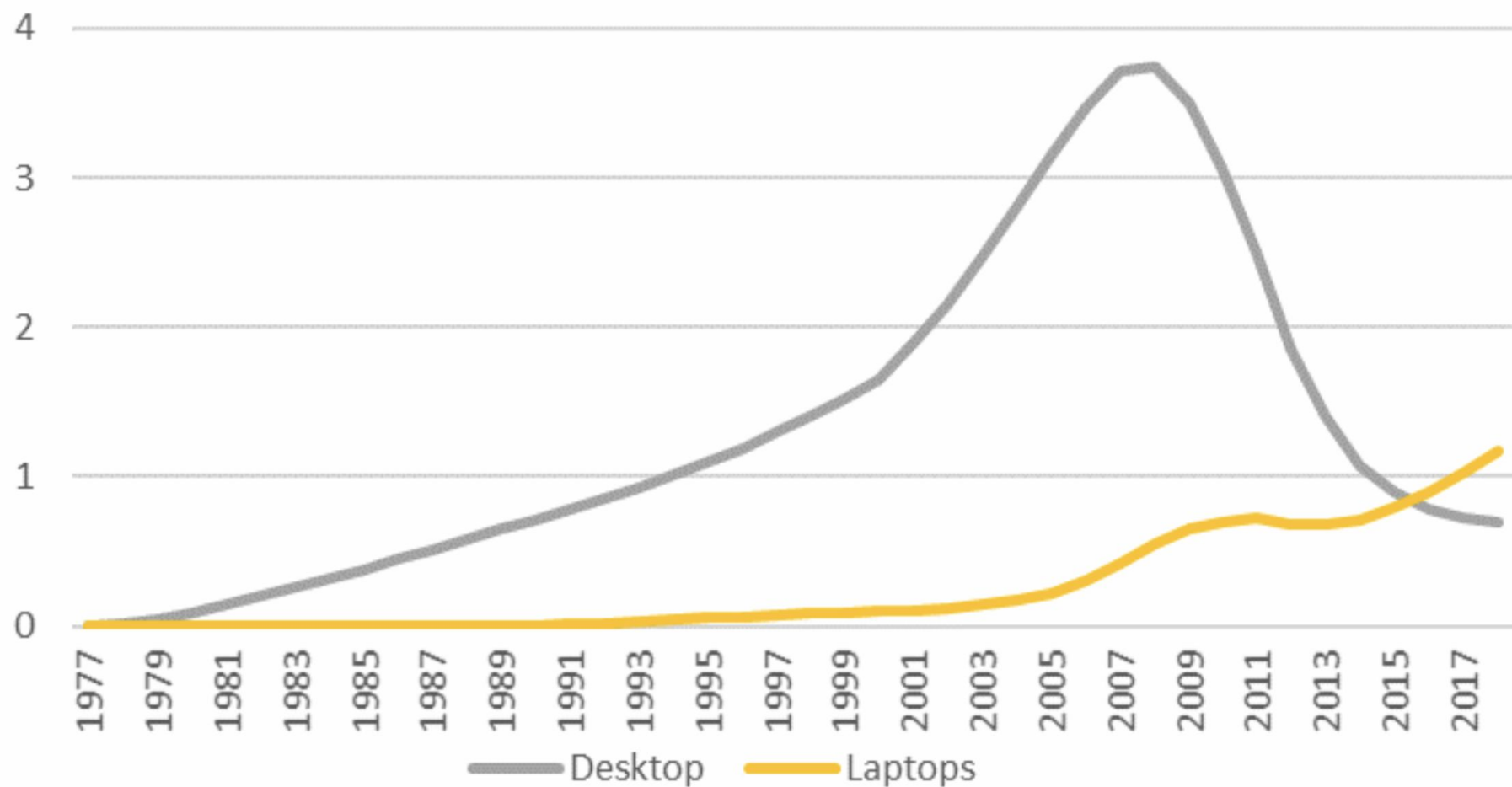


Llama-thanks!

The whiteboard in the background contains the following text:

- HYPOTHESES**
- EXPERIMENTS**
- HOW WILL WE TEST THIS W/ DATA?**
- HOW CONFIDENT ARE WE ABOUT THIS HYPOTHESIS?**
- Carbon footprint**
- Social proof**
- Financial savings**
- Users**
- Levels?**
- Cost**
- Energy consumption**
- Network comparison**
- Storage**
- Automated**
- Comparison**
- Results**
- Analysis**
- Conclusion**
- Recommendation**
- Implementation**
- Deployment**
- Monitoring**
- Feedback**
- Iteration**
- Optimization**
- Scalability**
- Security**
- Compliance**
- Documentation**
- Communication**
- Collaboration**
- Coordination**
- Consistency**
- Clarity**
- Conciseness**
- Completeness**
- Correctness**
- Consistency**
- Clarity**
- Conciseness**
- Completeness**
- Correctness**

TWh





Department of Energy & Climate Change

HOW CONFIDENT ARE WE ABOUT THIS HYPOTHESIS?

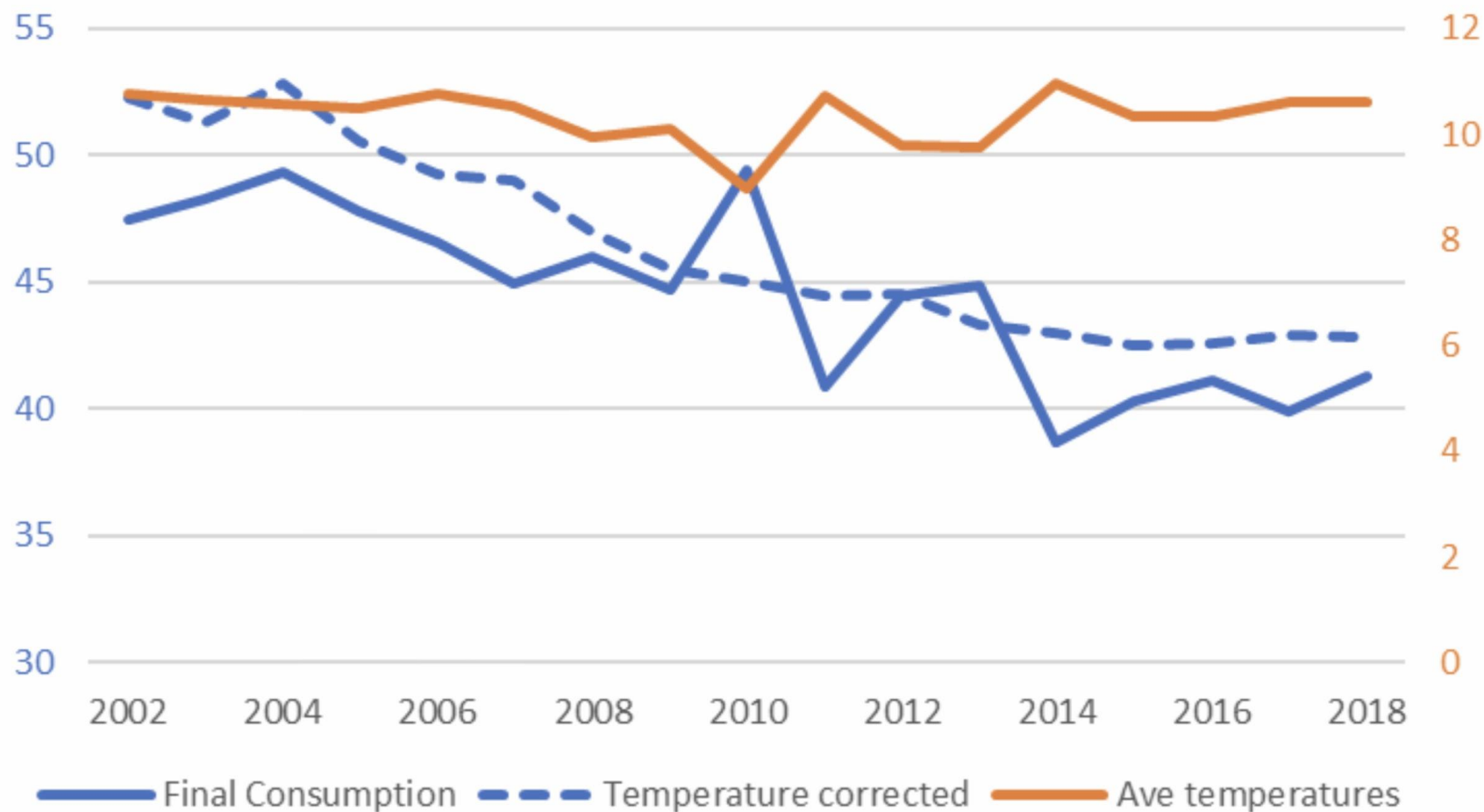
We can link decarbonisation to Smart Meters

Carbon footprint
Cost Savings
Positive
Net-zero

Domestic Consumption

Deg, Celcius

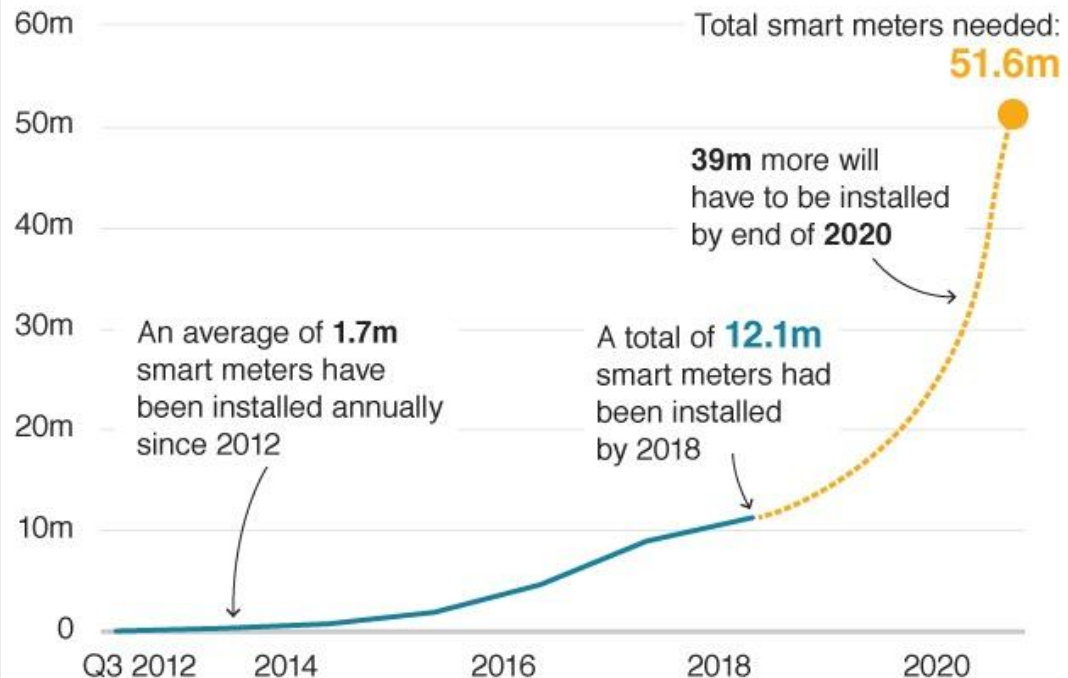
Mtoe



We need to step up
the pace of
installation

Can the smart meter target be reached?

Cumulative installations by year



Note: Quarterly figures for England, Scotland and Wales.
Data includes domestic and small businesses

Source: National Audit Office

BBC

IN SUPPORT OF



A horizontal banner with a dark blue background featuring a view of Earth's horizon from space, with stars visible in the upper right. The text "THE CLIMATE EMERGENCY HACKATHON" is written in white, bold, sans-serif capital letters.

THE CLIMATE EMERGENCY HACKATHON

Thanks!

The Just Llamas
@twitters



Home spend



Detailed history



Appliance breakdown



Household profile



Energy saving tips

Home profile

What type of house do you live in? ✓



Flat



Detached



Semi-detached



Mid-terrace



End of terrace



Bungalow

When was it built?

Pre 1919

Number of bedrooms

2

Number of occupants ✓

1

Heating type

Gas

Hot water

Gas

Cooking

Electricity & gas

Save



January 2020 **£100.68**



Heating

£65



Appliances

£17



Entertainment

£8



Cooking

£6



Lighting

£3



Hot water

£1

Day

Week

Month

Year



Similar homes

On

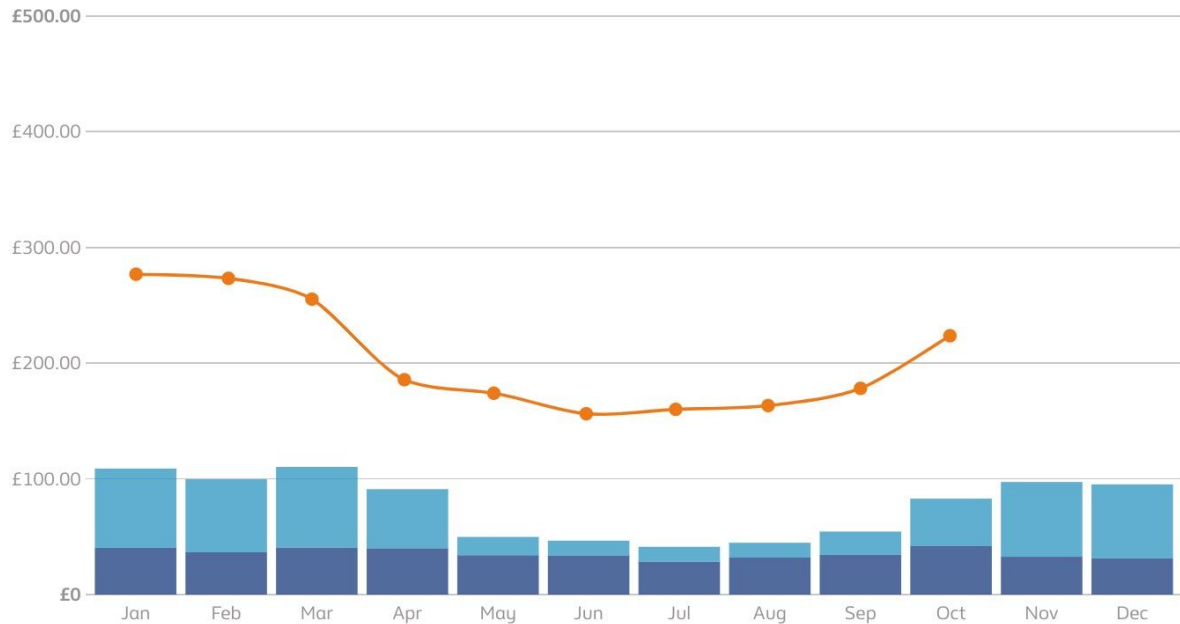


Spent in £

Used in kWh

Gas

Electricity



Highest

£110.37

March

Average

£76.87

Lowest

£41.29

July >

Branch: master ▾

dcarb-postcode-mapping / data /

Create new file

Find file

History



jdzool shape file

Latest commit b7428d0 7 minutes ago

..

📄 .DS_Store	initial commit	22 minutes ago
📄 consumption_data_london_postcodes_consumption.csv	shape file	7 minutes ago
📄 london_districts.dbf	shape file	7 minutes ago
📄 london_districts.fix	shape file	7 minutes ago
📄 london_districts.prj	shape file	7 minutes ago
📄 london_districts.shp	initial commit	22 minutes ago
📄 london_districts.shx	shape file	7 minutes ago
📄 london_postcode_list.csv	initial commit	22 minutes ago