



Demand for Green Skills and Opportunity for Green Jobs

Hertfordshire's Green Economy

Helen Pollock, Clean Growth Manager
January 2025





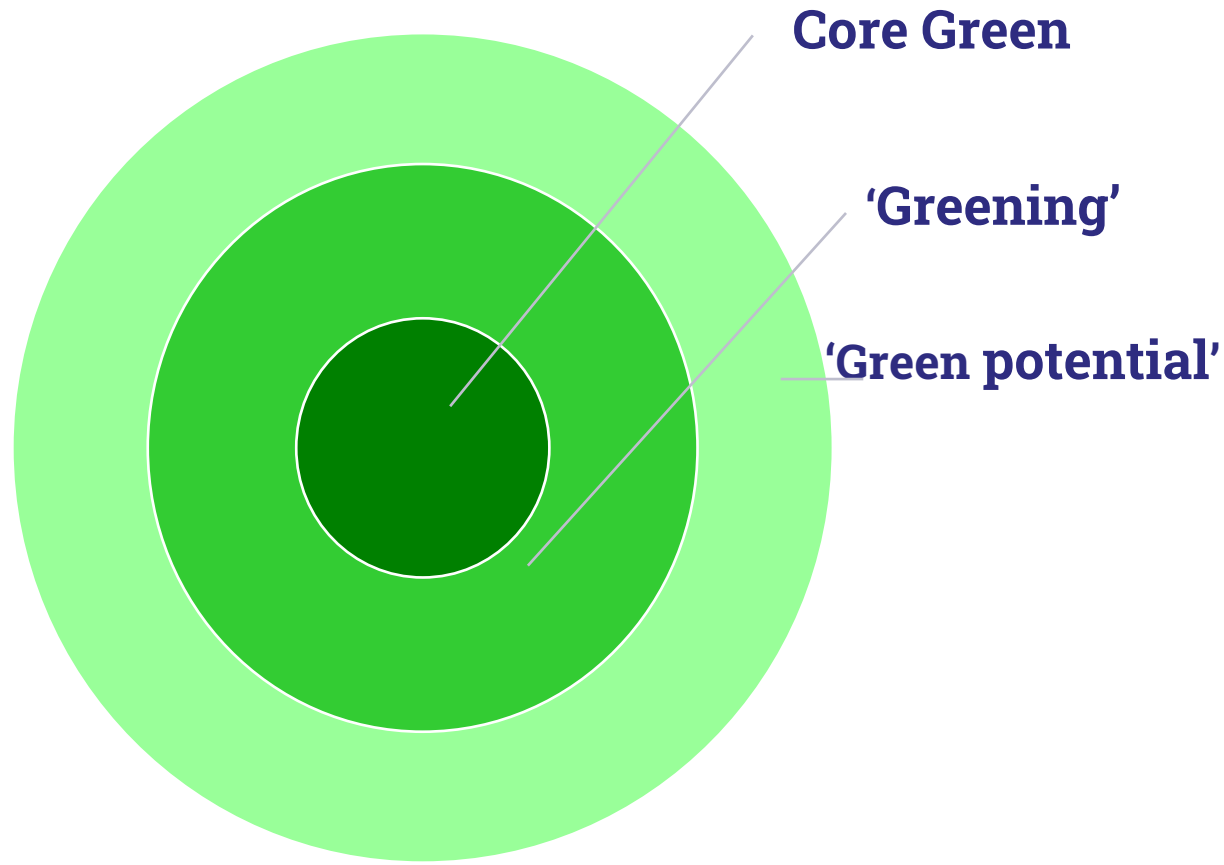
Most young people are passionate (and worried) about the environment

Few know the vast range of jobs options that enable them to make a positive impact and have a 'quality' career

Less know about the growing need and huge future demand for green skills



Green Skills and Green Jobs



'Green skills' is the umbrella term for the technical skills, knowledge, behaviour and capabilities required to tackle core environmental challenges.

Every job has the potential to become green or be affected by greening, but not all jobs or sectors will be impacted in the same way or at the same time.

'Green jobs' sits on an intensity scale





Environmental & Sustainability is a Priority Growth

Why? It supports:

Hertfordshire's & Government's **legal Net Zero targets** and tackles environmental challenges

Business net zero transition – **corporate reporting** responsibilities affects the whole supply chain

Significant economic growth and job creation opportunities in **Low Carbon Environmental Goods and Services Sector**

Sustainable Housing: building 100,000 new home and need to retrofit 500,000 in Hertfordshire



Sector value to Hertfordshire

In 2021/22, Hertfordshire's Low Carbon Environmental Goods and Services sector:

- Was worth £5.8bn in sales
- Had over 2,000 businesses
- Employed over 40,000 people

Hertfordshire LCEGS is an **economically significant** sector, accounting for 12.4% of Hertfordshire's GDP
(vs UK average of 11.4%)



Hertfordshire's top sub-sectors by sales 2021/22



1. Alternative Fuels – £810m
2. Wind – £804m
3. Building Technologies – £717m
4. Alternative Fuel Vehicle – £665m
5. Geothermal – £424m
6. Photovoltaic – £323m
7. Energy from Waste – £322m
8. Biomass – £276m
9. Recovery & Recycling – £264m
10. Water and Waste Water Treatment – £255m
11. Waste Management – £174m
12. Carbon Finance – £148m



LCEGS Sector forecast

Sales Values forecast to rise over £8.2 bn by 2025/26.

Employment potential to reach Net Zero 2050 with current policy is significant!

Potentially 20-30 times employment increase required

Government policies are key and driving change



Growing Demand for Green Skills and Jobs

Various government and skills reports highlight the growing need for green skills in the UK

e.g. Offshore wind needs 70k by 2026 (up from 26k)

Retrofit needs 230k by 2030

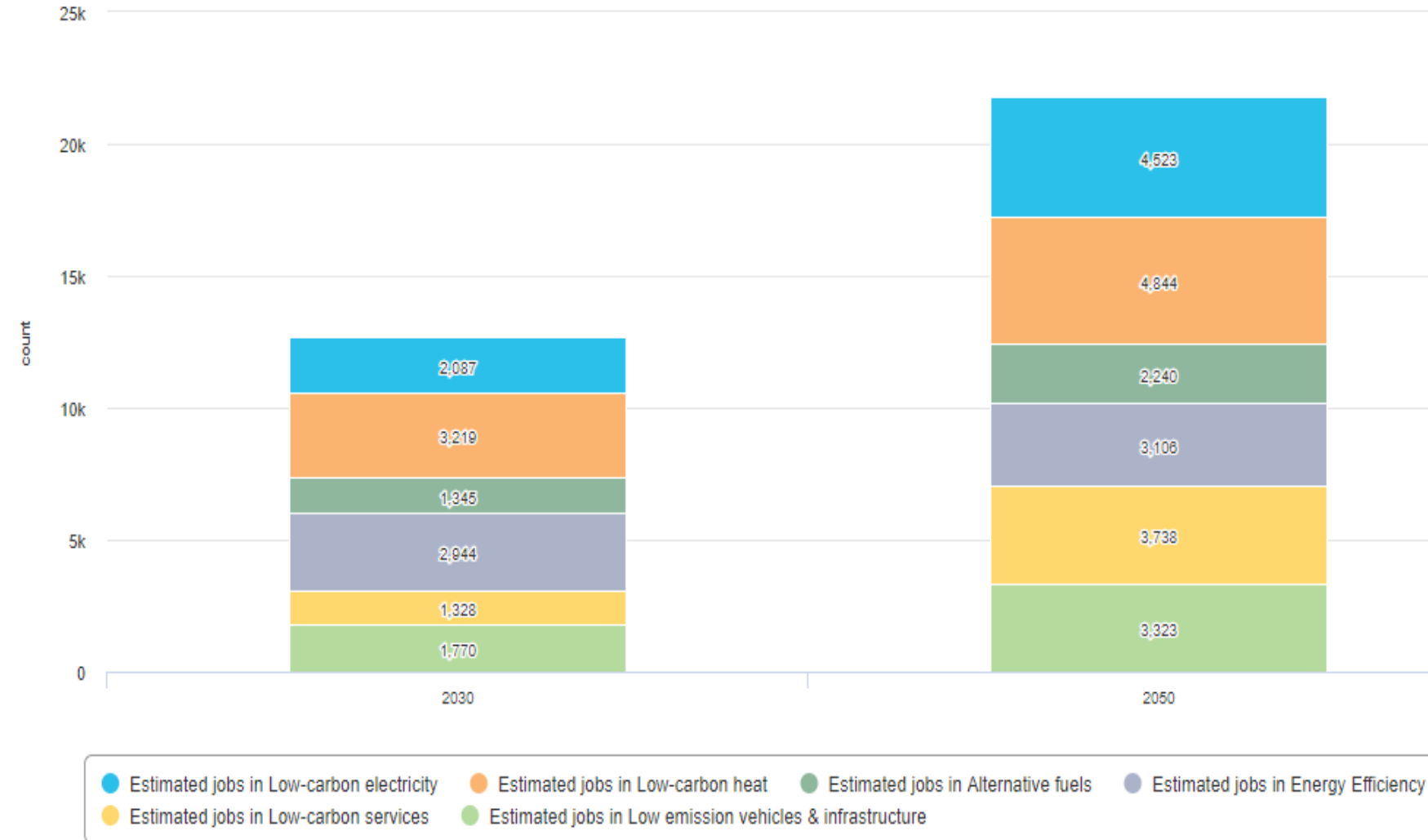
But jobs posted shows what is happening now.

LinkedIn – One in eight jobs posted want green skills. UK Demand surged by 46% in 2024



Hertfordshire' Green Jobs in Demand

Estimated number of direct jobs by sector in Hertfordshire



LGA report estimates that for low carbon & renewable energy alone:

- 13K Herts jobs will be required by 2030
- 22K Herts jobs by 2050



Summary and next steps

- Meeting the UK's Net Zero targets, tackling climate change, and enabling a greener economy is a priority for Government and Hertfordshire
- Hertfordshire's Low Carbon Environmental Goods and Services is an economically significant sector and the need for green skills is growing.
- Hertfordshire Futures will continue highlight the demand and range of green job opportunities available, particularly through **HOP**, Bootcamps, Step2Skills and our retrofit skills programmes.
- Increasingly curriculum-linked and free resources for schools are becoming available to introduce and promote green careers.
- Welcome a discussion on how to further green careers support for schools.





Emma Fletcher
Octopus Energy

The background is a solid dark blue. It features several abstract geometric elements: a large white right-angled triangle on the left side, a smaller white right-angled triangle in the top right, a teal right-angled triangle in the top center, a teal right-angled triangle in the middle right, a teal right-angled triangle in the bottom right, and several smaller white and teal right-angled triangles scattered throughout the lower left and bottom center areas.

Thank you

Questions?

01438 843000

info@hertfordshirefutures.co.uk

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[LinkedIn](#)

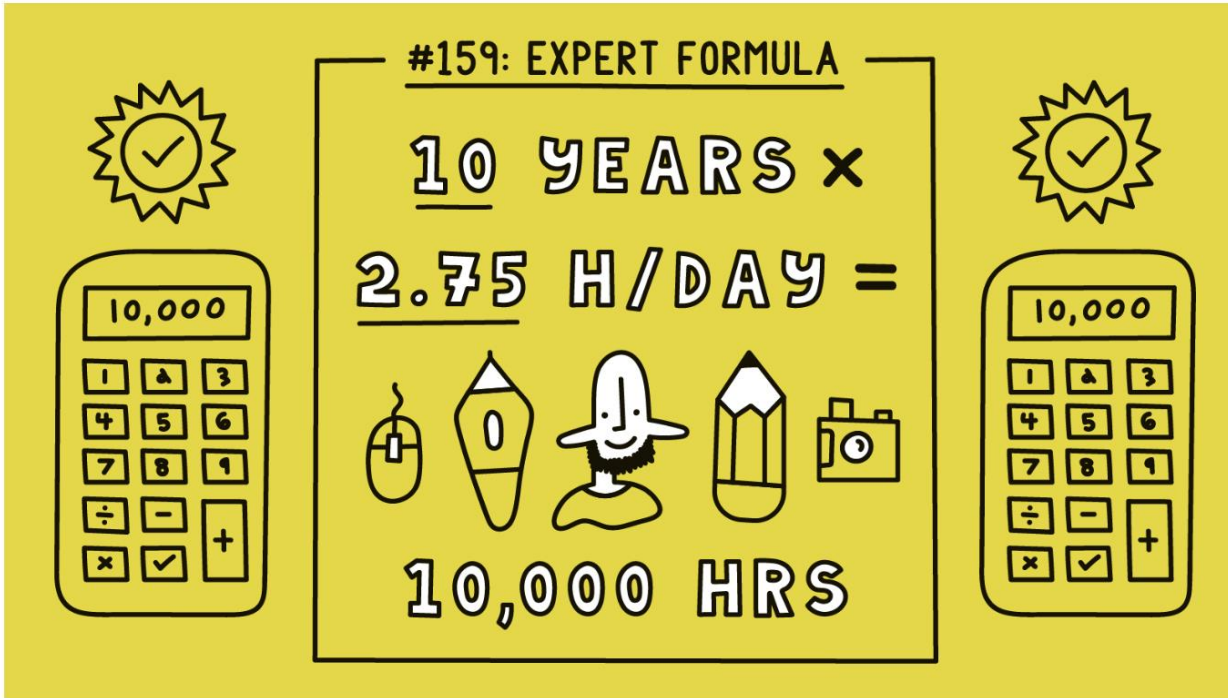
Teachers Encounters

Exploring the Octoverse....

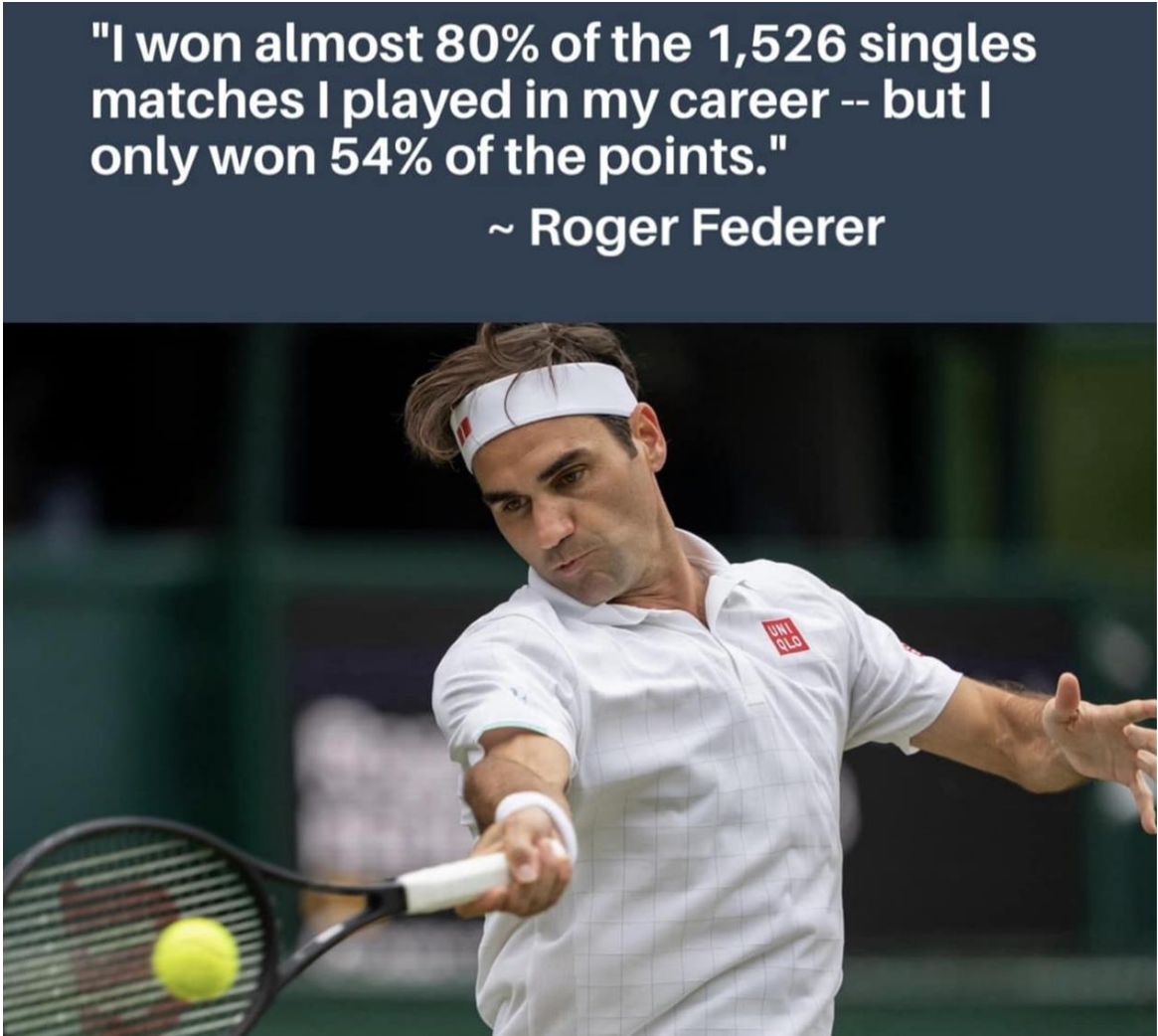
Emma Fletcher - Low Carbon Homes Director



octopusenergy



April 29, 2020—Malcolm Gladwell’s 10,000-hour rule seems intimidating, but you can easily make your own path by breaking it into hours per day.



"I won almost 80% of the 1,526 singles matches I played in my career -- but I only won 54% of the points."
~ Roger Federer



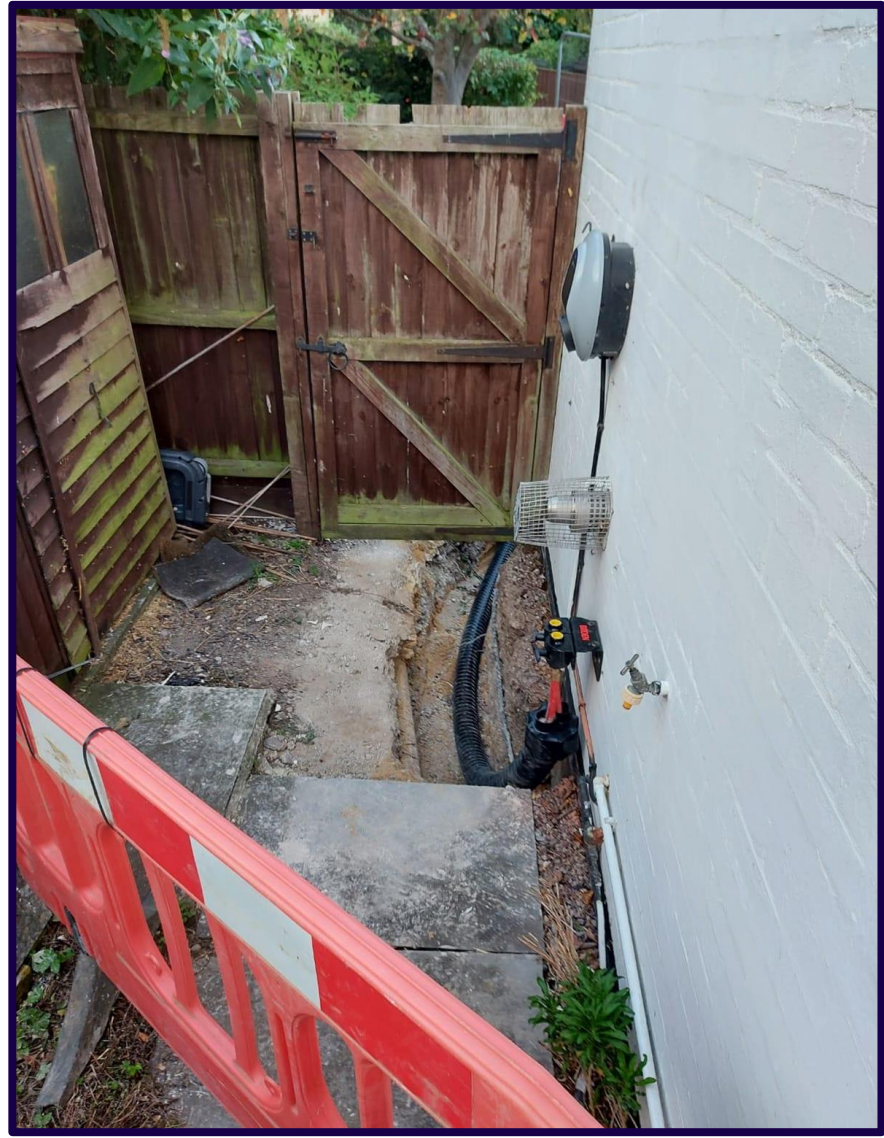
**YOU CAN DO
ANYTHING, BUT
NOT EVERYTHING**

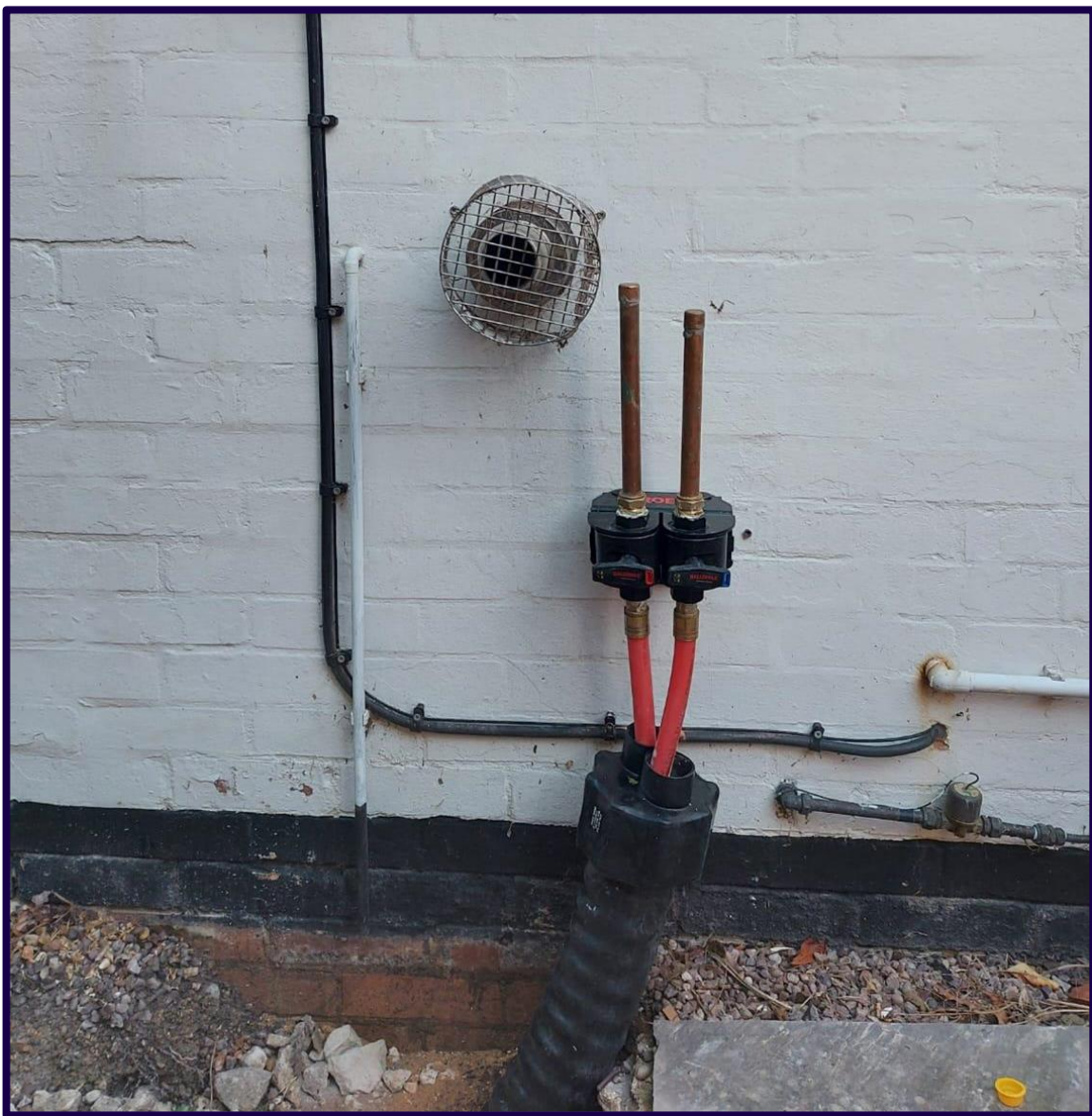
DAVID ALLEN













We use **technology** to drive the green energy revolution – making it **cheaper and faster** for citizens and the planet.





18

4



\$9bn



7.7 million



54 million+



4.8 Trustpilot



Which? Recommended Supplier



UK's #1



leading investors in renewable generation

All on the back of Kraken



INDUSTRY NEWS

Kraken Technologies expands into water and broadband



5000MW
of contracted capacity

30 MILLION
customer accounts

16 COUNTRIES
home to Kraken

30+ MIGRATIONS
from legacy systems

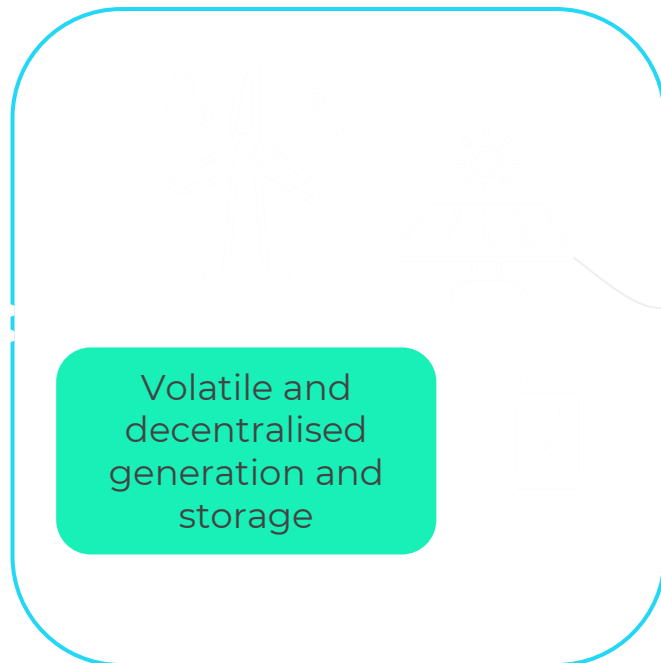




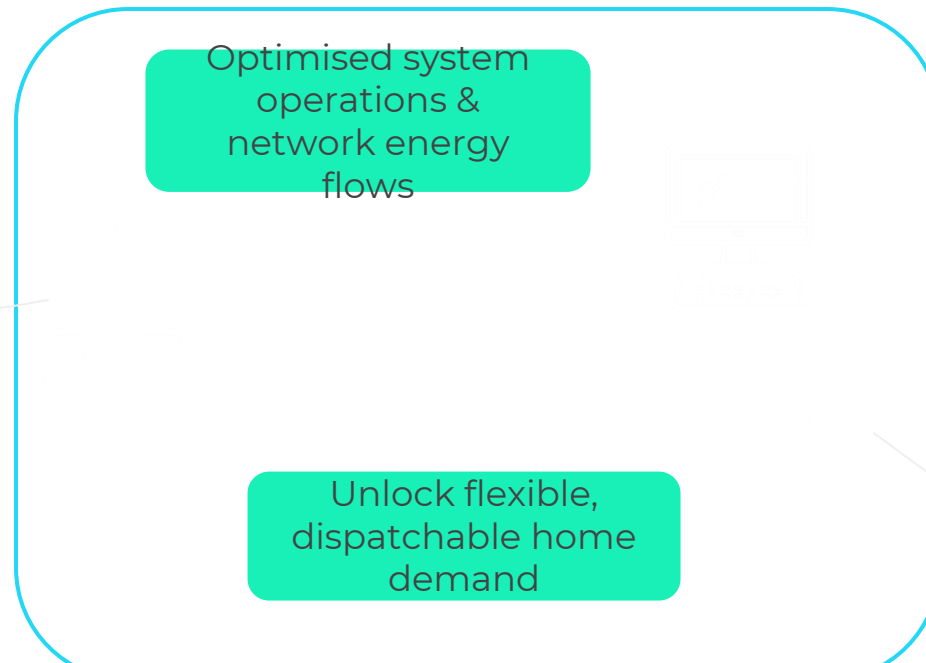
Dispatchable fossil
fuel generation

Linear transmission and distribution

Static consumption by
the end consumer



Volatile and
decentralised
generation and
storage



Optimised system
operations &
network energy
flows

Unlock flexible,
dispatchable home
demand



Offer customers next-
generation tariffs &
energy products



outrageously good customer service

This one's new

Which?
Recommended
Provider

JANUARY 2024

Uswitch
Supplier of the Year
Winner

GOOD SHOPPING GUIDE
ETHICAL

2024 · 7 YEARS RUNNING

2023 · 2021 · 2020 · 2018

INDEPENDENTLY ACCREDITED

Great value for the long term

Our standard prices have **always** been cheaper than any other large supplier.

The UK's most awarded energy supplier

We've won more awards for customer service than anyone else.

Energy for a cheaper, greener future

We're one of Europe's leading investors in renewable generation.

Rated 5 stars for customer service from **284,086** reviews.

★ **Trustpilot**

★★★★★



Cheaper, greener energy

"The best energy supplier in the UK" **techradar**

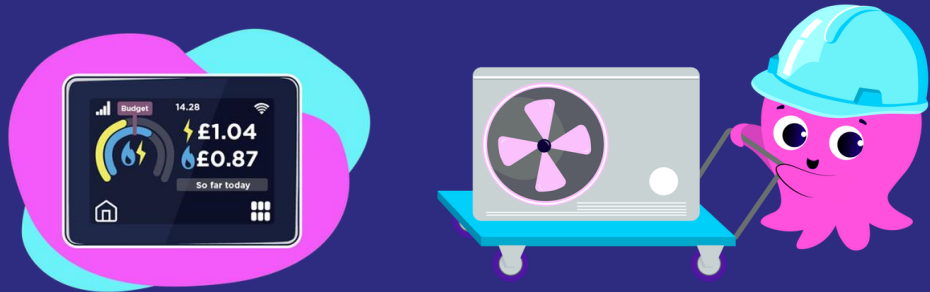
"the only energy firm we've awarded more than twice" **Which?**

Uswitch "Supplier of the Year for the second year running"

Join the UK's most awarded energy supplier

octopus energy

Octopus Energy Services is spearheading the energy transition providing a **one-stop shop, end-to-end installation service** for the delivery of low-carbon tech in homes across the UK and globally



We have built a state-of-the-art **training and R&D centre** for low carbon technologies, investing £10 million of our own money. This year we have the capacity to train **1,000** low carbon heating (ASHP) **engineers** from this centre alone

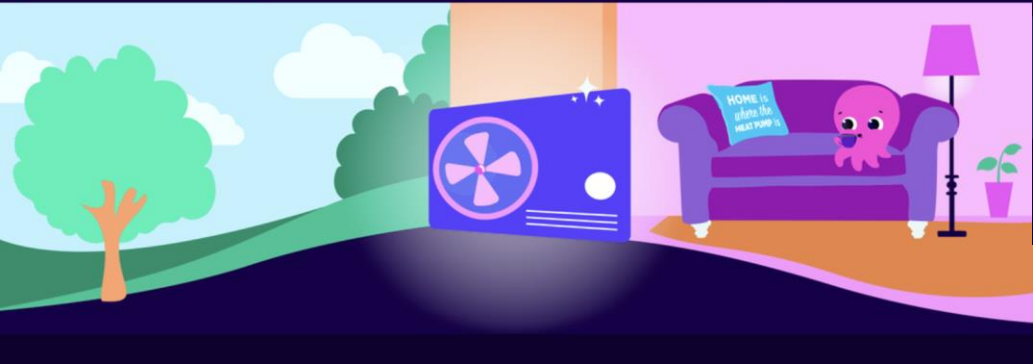


The Cosy 6 heat pump: revolutionising heating the Octopus way

Green home tech

Flexibility & smart energy

Octopus news



“ This is a huge day for clean heating. The combination of a high-temperature heat pump – as hot as a gas boiler – Octopus smart tariffs and room sensors across your home doesn’t just open up cheaper clean heating – but more comfort too

GREG JACKSON (CEO)

	Cosy 6	Cosy 10
Heat capacity	6 kW	10 kW
Sound power levels	53.8 dBa	56.1 dBa
Efficiency	340%	360%
Dimensions (W x H x D)	855mm x 1125mm x 595mm	855mm x 1375mm x 595mm
SCOP (designed at 50°C)	3.4	3.6
Max flow temperature	75°C	75°C



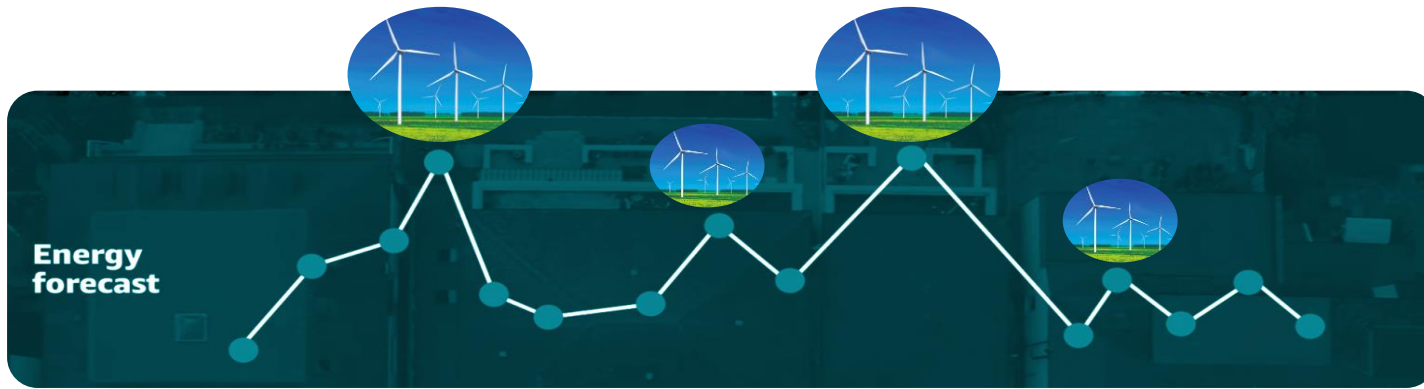


Accessing your live data is easy.

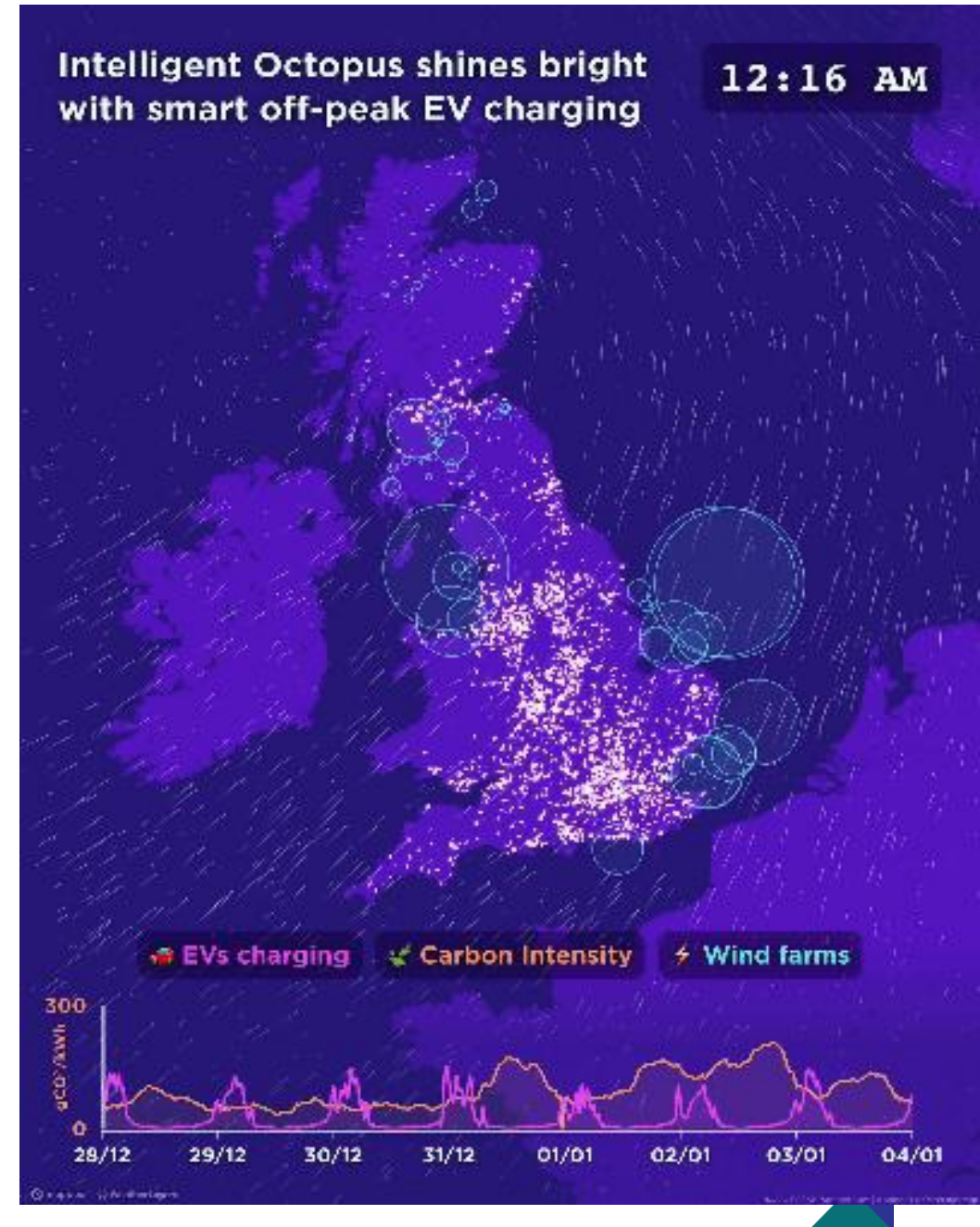
You just need to plug the Home Mini in, follow the setup journey in the Octopus Energy app and **you'll soon be able to see your electricity consumption and what you're spending in near real-time** and your gas every 30 minutes.



Our next generation of EV tariffs - **Intelligent Octopus** smart charges your EV when the grid is the greenest



- **6 hours** of smart charging every night at a **super low rate** (11:30pm to 5:30am @ 7p per kWh)
- Charging of your EV takes place when the price of **energy is the cheapest**
- Customer via the **Octopus Energy App** can set their charging preferences or bump charge at any time



But what if it were possible to decarbonise our homes and not have an energy bill at all....?



Your energy account

1st Sep 2022 - 30th Sep 2022

On 21st Sep 2022
Your balance was zero:

£0.00

1. Your Zero Bill home
You still have **92% of your annual quota** left

Electricity imported
31st Aug 2022 — 28th Sep 2022

472 kWh

Electricity exported
31st Aug 2022 — 28th Sep 2022

732 kWh

As of 30th Sep 2022
Your balance is zero:

£0.00



ZERO BILLS

Now 10 YEARS guaranteed!

SOLAR
PANELS

HEAT PUMP

BATTERY



KRAKEN
FLEX

Bellway



Citra



CLARION
HOUSING GROUP

platform
housing group

SNG | Formerly
SOVEREIGN



Hill
The Hill Group



Persimmon
Together, we make a home.

Keepmoat



Vistry Group





 **Persimmon**
Together, we make your home



Bellway



 **ST.MODWEN**



 **VERTO**



 **EDENSTONE
HOMES**



 **TILIA
HOMES**


HOPKINS HOMES



Citra



 **Hill**







ISI
HOLLYMEAD SQUARE

SALES SUITE
OPEN THURSDAY -
MONDAY
10:00 AM - 5:30 PM

Please scan QR code
to visit our website



so.uk/hollymead-square



octopusenergy

ZERO BILLS

Enjoy zero energy bills
for 5 years guaranteed*
with Octopus Energy

To find out what's included, visit
octopus.energy/zero-bills-home

*Limits, exclusions, and T&Cs apply.



Our first Zero Bills Home Retrofit Project





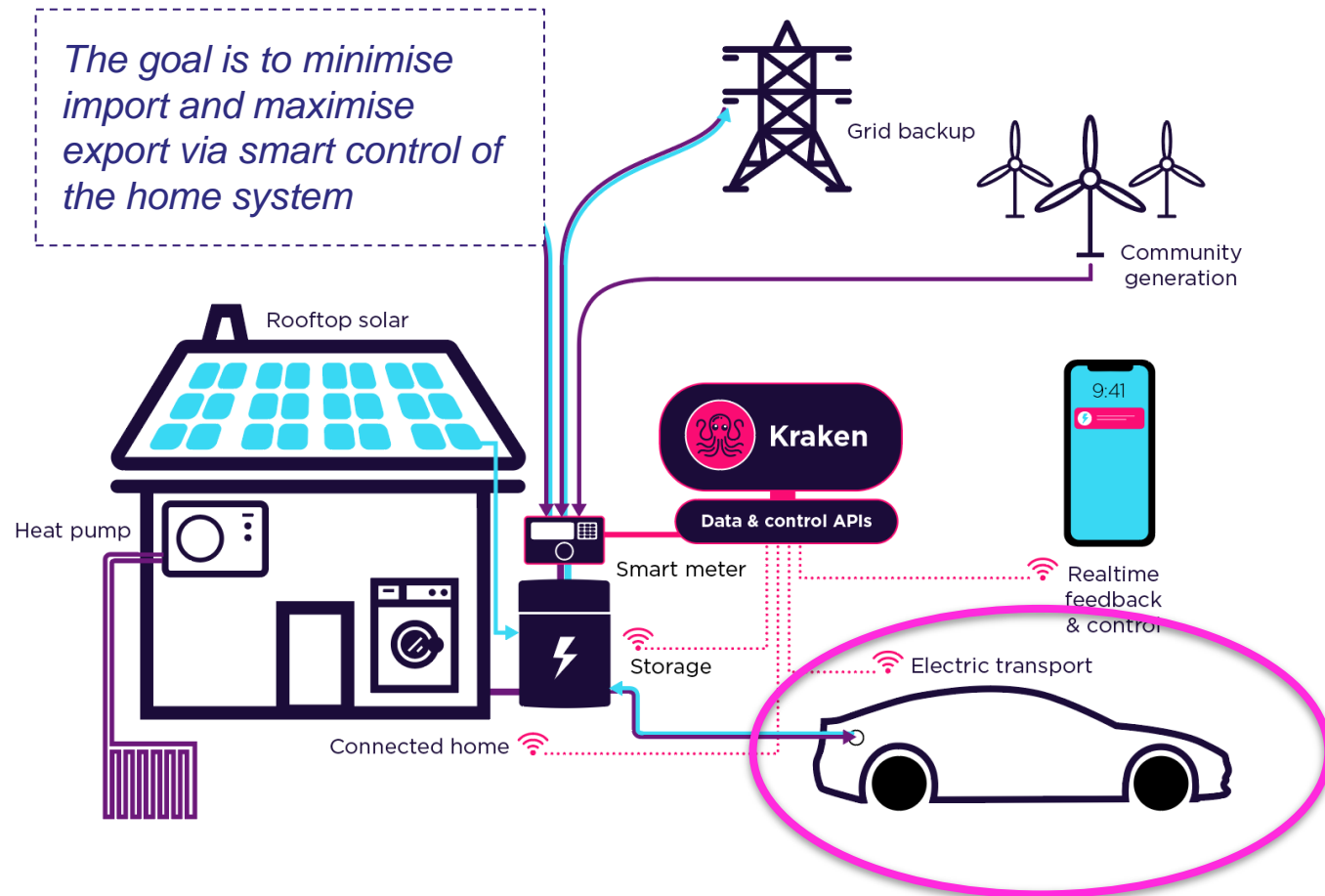
ZERO BILLS

RETROFIT TRIALS

5 Years Zero Bills



Could adding the car to the home unlock Zero Bills in retrofit?



Combine **Air Source Heat Pump (ASHP), Solar PV, Smart Meter, domestic battery** and **domestic electric car** to eradicate energy bills





Power pack is currently compatible with:

Nissan Leaf

Nissan e-NV200

Mitsubishi Outlander PHEV

And we're working hard on more integrations!

Octopus Power Pack: the UK's first Vehicle-to-Grid tariff

Get free EV charging with our groundbreaking vehicle-to-grid (V2G) tariff

Add Octopus Power Pack to your regular tariff. We'll set up your V2G charger to automatically manage your charging and discharging in the greenest way possible, so you can fill up for free.

A typical V2G driver could **save £880 per year compared to Flexible Octopus**, and **£180 compared to Intelligent Octopus Go**.

rightmove 

D-C

Property improving from an EPC rating of D to C
Average increase in value of 3%, or **£11,157**

E-C

Property improving from an EPC rating of E to C
Average increase in value of 7%, or **£26,033**

F-C

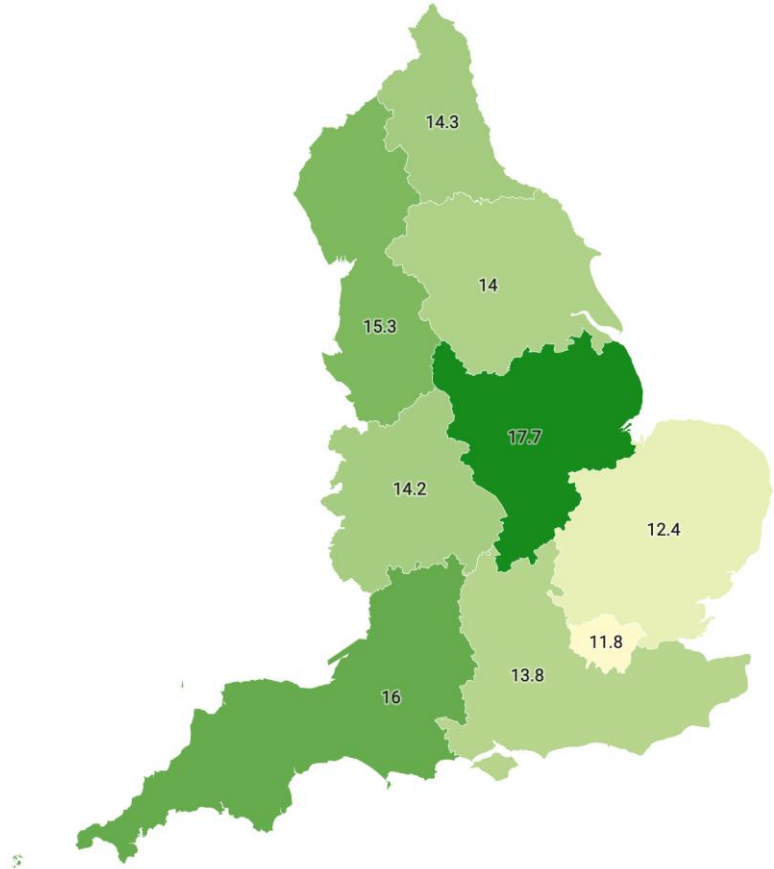
Property improving from an EPC rating of F to C
Average increase in value of 15%, or **£55,786**



Source |

Greener Homes
Green Homes Revolution

Zero Bills Value Uplift (%)



Source |



PERENNA ZERO BILLS MORTGAGE

No energy bills. No rising mortgage payments. No shocks.

Say hello to great value for the long-term. When you combine a Zero Bills™ home with a Perenna Zero Bills mortgage, you can wave goodbye to energy bills, and leave your mortgage worries at the door, knowing your mortgage payments will never go up.

PERENNA ZERO BILLS

Where can I find a
Zero Bills™ home?

Verto Homes
Cornwall & Exeter

[Visit developer](#)

The Hill Group
Essex

[Visit developer](#)

Bellway
Bedfordshire

[Visit developer](#)

St Modwen Homes
Oxfordshire

[Visit developer](#)

Thakeham
West Sussex

[Visit developer](#)



Equity joint venture for the development of four new retirement communities



Homes
England

we manage a portfolio of over 98 modern, purpose-built care homes.

Greener Homes Alliance

Our new partnership with Homes England

We are providing discounted development finance to support housebuilders in the UK to build high quality energy efficient homes achieving a SAP score of over 85, equivalent to an EPC of B and above.

- Homes that achieve a SAP score of 92 and above (EPC A) will receive **2% discount** on interest rate
- Homes that achieve a SAP score of 85 and above (EPC B) will receive **1.25% discount** on interest rate
- Benefit from initial free of charge, expert advice from sustainability consultants McBains and Octopus Energy



NewArch Homes is a registered provider of social housing.

We are regulated by the Regulator for Social Housing to provide affordable homes for those who may be unable to afford to buy or rent one on the open market.

Our goal is to build homes to high quality and energy efficiency standards. This means that our homes cost less to heat, and that the ongoing operation of our homes has a lower impact on the environment.

NewArch

Building homes and
communities for people
who need them most



NewArch Homes is funded through long-term investment from investors who are motivated to deliver good quality housing. This investment is managed by Octopus Investments Ltd, who also manage NewArch Homes.





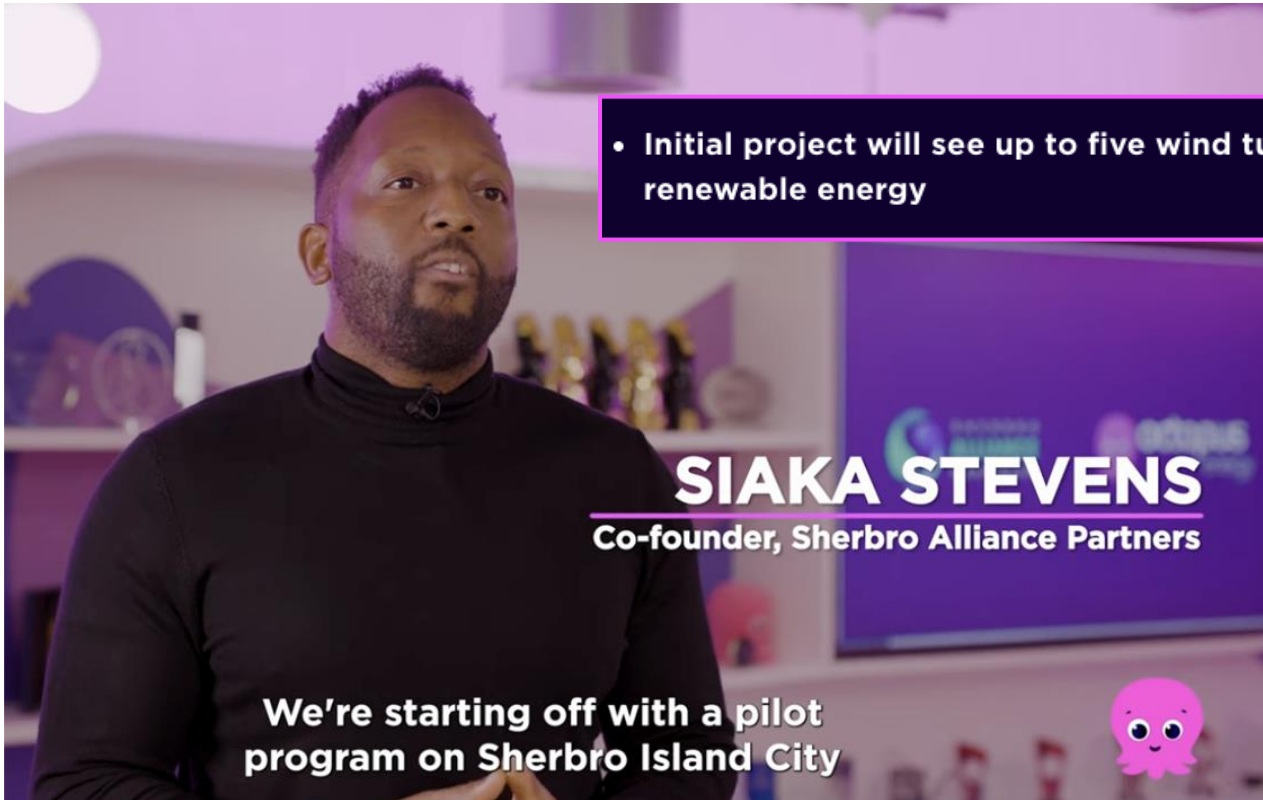
SHERBRO
ALLIANCE
PARTNERS



octopus
energy



- Initial project will see up to five wind turbines built with solar and battery storage to accelerate the roll-out of renewable energy



SIAKA STEVENS
Co-founder, Sherbro Alliance Partners

We're starting off with a pilot program on Sherbro Island City



Today, 7 out of 10 people in Sierra Leone don't even have electricity.



and we're planning to build the first West African smart city.



Eclipse Power Networks - Octopus IDNO, microgrids & grid balancing

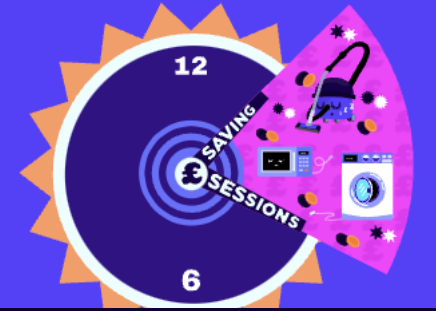


Why choose an IDNO?

A traditional Distribution Network Operator (DNO) is limited to a geographical part of the UK. An independent DNO – like Eclipse Power Networks – can operate nationwide. We can also be more flexible in the way we interpret the standards set by DNOs – many of which vary from region to region.

Unlike DNOs we can also pay you an Asset Value when you join our network. In other words we buy the electricity network that you install in your development and manage it from then on. A DNO is legally barred from paying you anything for your assets.

Octopus SAVING SESSIONS



Get paid to use less at peak times this winter

Cutting down on energy **at certain times of the day** can have a bigger impact on the planet, the energy system, and your wallet.

With Saving Sessions, we pay you to use less power.

Battery powered Emirates Stadium



Over 103 games have been played using sustainable energy to power the stadium



Octopus Power-ups - South East & East England

Power up for free on spare green electricity





Centre for Net Zero

Powered by Octopus Energy

Our **access to tens of billions of customer data points** gives us an unparalleled insight into the real behaviours of people and businesses.

**FOUNDED BY
OCTOPUS ENERGY**

**GROUNDING IN
REAL-WORLD DATA**

**OPERATED
AUTONOMOUSLY**

**PIONEERING RESEARCH TO MAKE
THE FUTURE ENERGY SYSTEM
A REALITY.**

Powered by Octopus Energy.

We **set our own research agenda** and operate on a not-for-profit basis.





octopus electric vehicles

Save your team up to 40% on brand new electric car with salary sacrifice

Help your business improve your team's engagement and retention and attract new talent all while meeting your sustainability goals and saving on National Insurance.

It's free to join and easy to set up. You can get going in as little as 2 weeks.



Over 2,600 schemes now live and counting...!



Electric car leasing from Octopus EV

The whole EV package. Car, charger, energy.



We also invest in bigger energy projects too...

We're one of the largest investors in solar energy in Europe and a fast-growing investor in wind energy too



£5.8bn

The global portfolio of assets we manage.



3.3GW

Our assets are made up of over 240 large scale and over 4,500 small scale energy projects



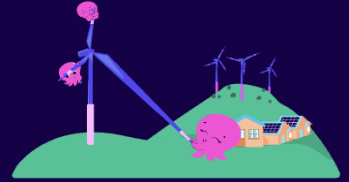
2.2m

Homes powered each year by the renewable assets we manage.



ZESTEC
Renewable Energy

Solar Energy Solutions



Repowering

We're finding ways to produce as many green electrons as possible to help the UK ditch gas for good.

Our latest plan has the potential to create enough new power for hundreds of thousands of homes a year, without having to start a single new turbine project from scratch...

Octopus Energy Generation will refurbish up to 1,000 of the UK's oldest turbines by the end of 2025.

Let's build more wind

Plots for kilowatts!

Help bring about the future of UK energy and security by telling us about where we can build a turbine on your land.

Register your interest in 60 seconds



1 in 10 solar farms in the UK are managed by Octopus!



Investing £3b in green hydrogen for heavy industry

Octopus Energy and Legal & General make £70million investment into ground source heat pump business - The Kensa Group



And support communities too to do the same...

Welcome to the
Octopus
Fan Club,
Halifax!

You could save half
on your electricity
when the wind blows



octopusenergy

Glastonbury's 'biggest fan': UK festival gets an eye-catching 28 metre wind turbine



Heat the Streets
Low carbon alternative
to the gas network

Making people-powered energy a reality

younity
coop | octopus

Energy producers Take Action Funding Community Power Tariff

energising
community
energy



Octopus Fan Club

Currently for postcodes: BD22, CF81, DN31, DN32, DN33, DN34, DN35, DN36, HX2, LN11, LN12, LN13, NP24, PE24, PE25 and YO43



OCTOPUS
FAN CLUB

20%

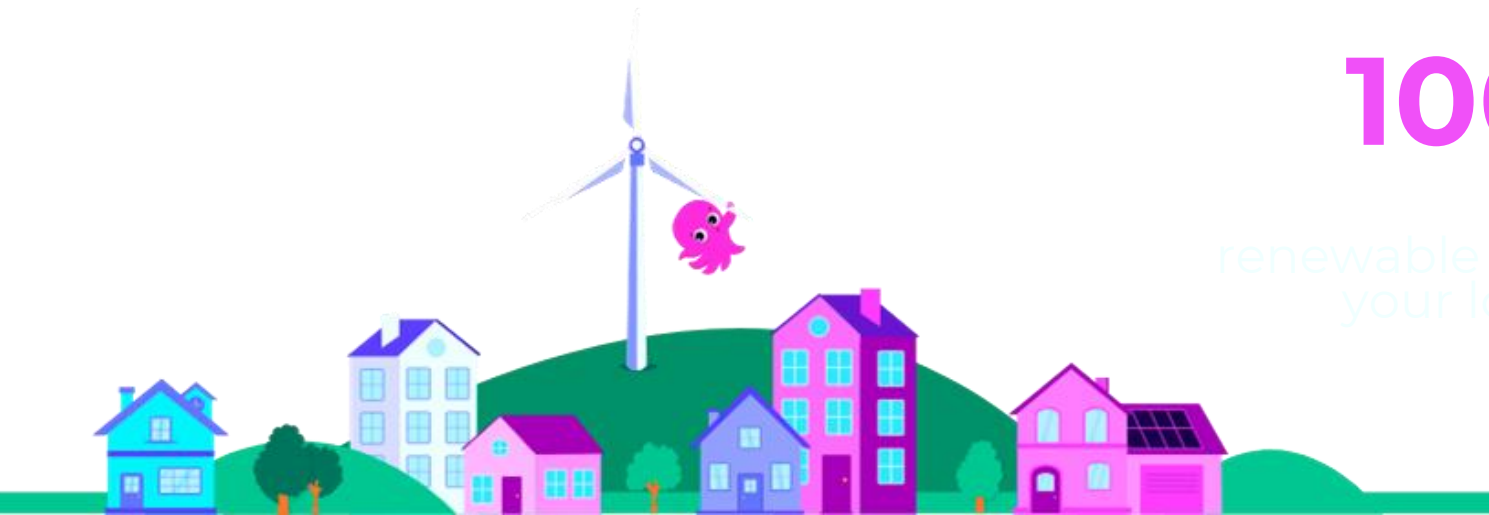
off your unit rate whenever
your turbine is spinning
and you're using electricity

50%

off your unit rate when the
wind picks up and the green
electrons are really flowing

100%

renewable energy from
your local fan



You're invited to our public consultation!



What?

An Octopus
Wind Turbine
Event

Where?

Market Hill,
Clare, Sudbury
CO10 8NN

Wednesday,
November 20th
9am - 6pm

Wind is cheap. Gas is expensive.



The fastest route to energy independence in Britain is green.





Futureproof your home with the Melbourne Energy Superloop

Looking to the future

Zonal pricing: UK Government pledges cheaper electricity for those living near renewables projects

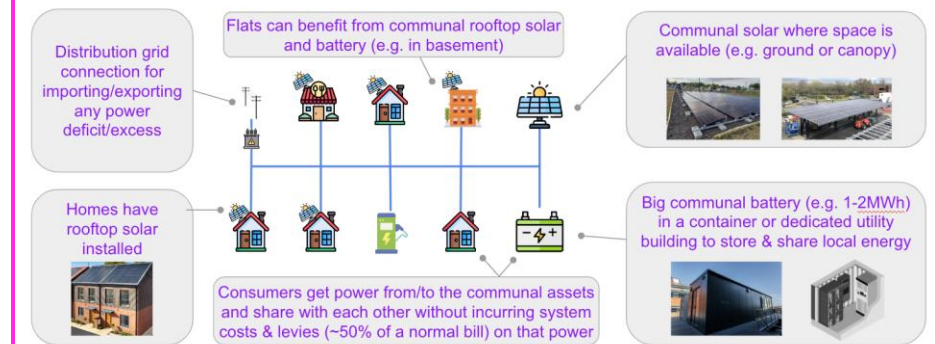


HEAT PUMPS

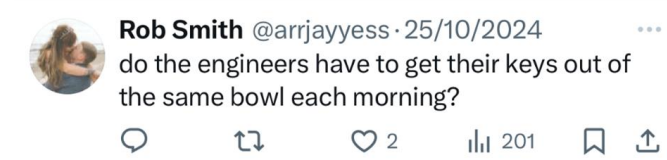


With Octopus Energy and Halifax, you could get a heat pump at home for free

A local microgrid with communal low-carbon tech assets



BE Good (not perfect)...and own it...





Thank you!

Love & Power

emma.fletcher@octoenergy.com
07785 324729

