



Worldwide leaders in public and management accounting

Addressing the Energy Crisis

Lynn Tracy

Net Zero Business Support Manager, Electricity North West Ltd

Alasdair Dazel-Job

Sustainability & Net Zero Advisor, The Business Growth Hub

Vicky Wilding

Senior Business Advisor, Green Economy

23 January, 2023



Addressing the Energy Crisis

20th January 2023

Lynn Tracey, Net Zero Business Engagement
Manager

Stay connected...



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Context – Global Commitments

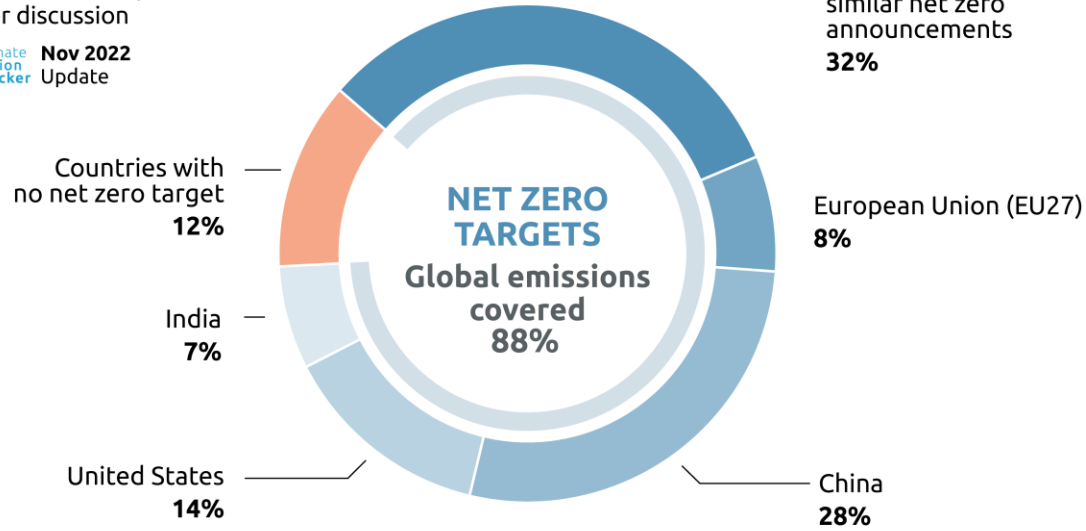


November 2022

Net zero emissions target announcements

Agreed in law, as part of an initiative, or under discussion

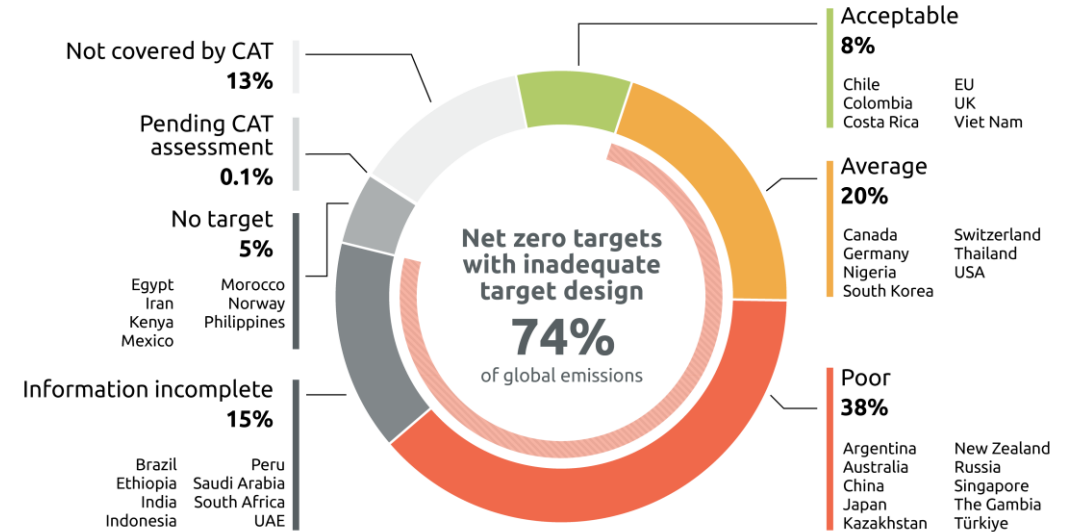
Climate Action Tracker
Nov 2022 Update



Net zero target design - mostly inadequate to date

Quality of net zero targets by percentage of global emissions evaluated using the CAT's design blueprint for transparent, comprehensive and robust national net zero targets

Climate Action Tracker
Nov 2022 Update



<https://climateactiontracker.org/global/cat-net-zero-target-evaluations/>



1.5oC goal - on track for 2.4oC

Annual meetings to submit updated national plans



Headlines



- 1990 baseline
- 44% CO₂ reduction achieved by 2019
- 68% CO₂ reduction by 2030
- 78% CO₂ reduction by 2035
- Net zero by 2050.

Transport



- No new petrol or diesel cars or light vans sales from 2030
- No hybrid sales from 2035
- All new HGVs <26 tonnes sold zero emission by 2035
- All new HGVs sold zero emission by 2040.

Energy



- Decarbonised power sector by 2035
- Currently 43% of electricity from renewables (2020)
- 7% in 2010.

Buildings and heating



- Heating from:
 - Heat pumps
 - Heat networks
 - Hydrogen (Decision 2026)
- EPC B for landlord properties by 2030
- EPC C all homes by 2035 'where practical, cost-effective and affordable'.

UK Net Zero Strategy: <https://www.gov.uk/government/publications/net-zero-strategy>

Transitioning to Zero Emissions Cars and Vans: <https://www.gov.uk/government/publications/transitioning-to-zero-emission-cars-and-vans-2035-delivery-plan>

HGV announcement: <https://www.gov.uk/government/news/uk-confirms-pledge-for-zero-emission-hgvs-by-2040-and-unveils-new-chargepoint-design>

Heat and Buildings Strategy: <https://www.gov.uk/government/publications/heat-and-buildings-strategy>

Drivers for businesses to act now



Commercial & market drivers

Policy & legislation



Energy costs
and financial
savings



Investors and
stakeholders

Your
customers

Your
competitors



Financial
incentives &
grants



Requirements



Increased
innovation

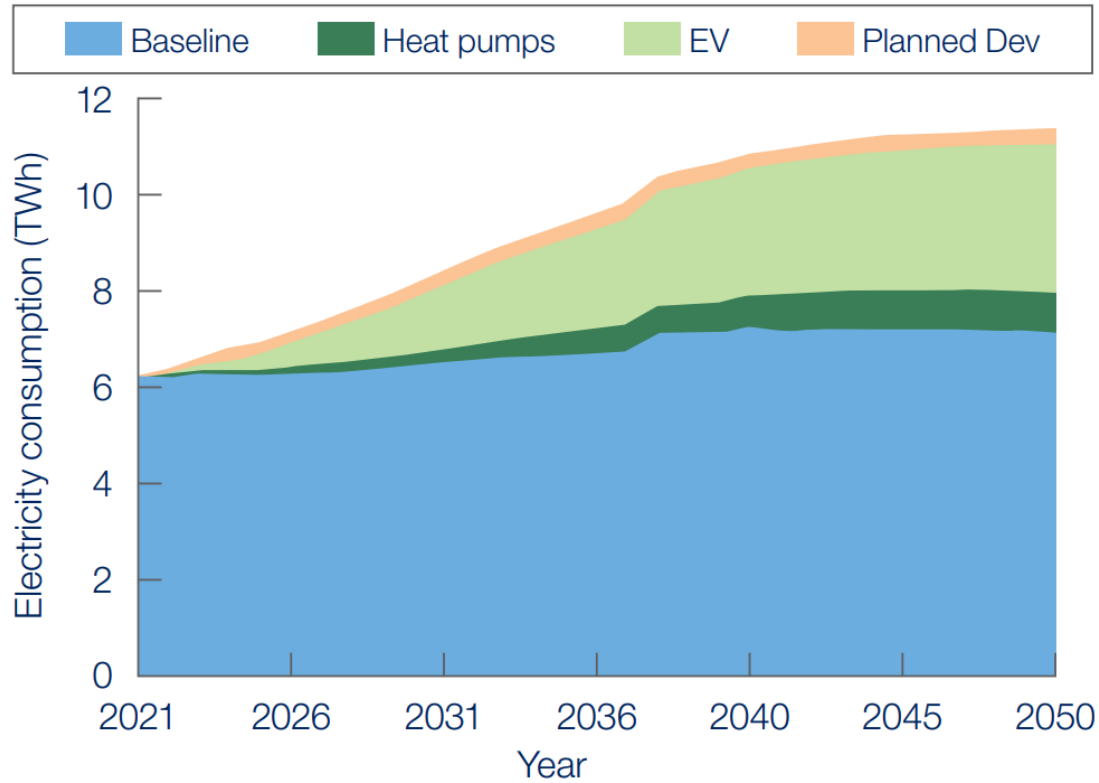


Improved
reputation

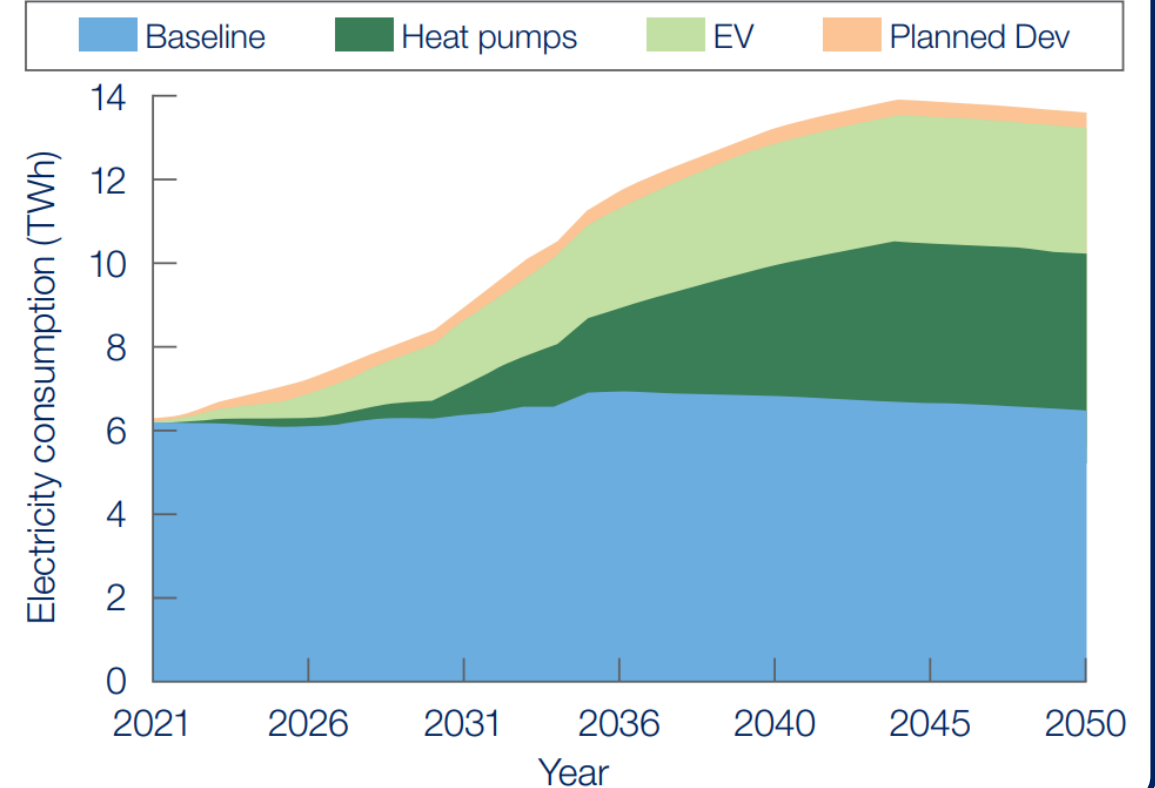
Forecasts – electricity demand in Lancashire



Future annual demand for Lancashire – ‘best view’



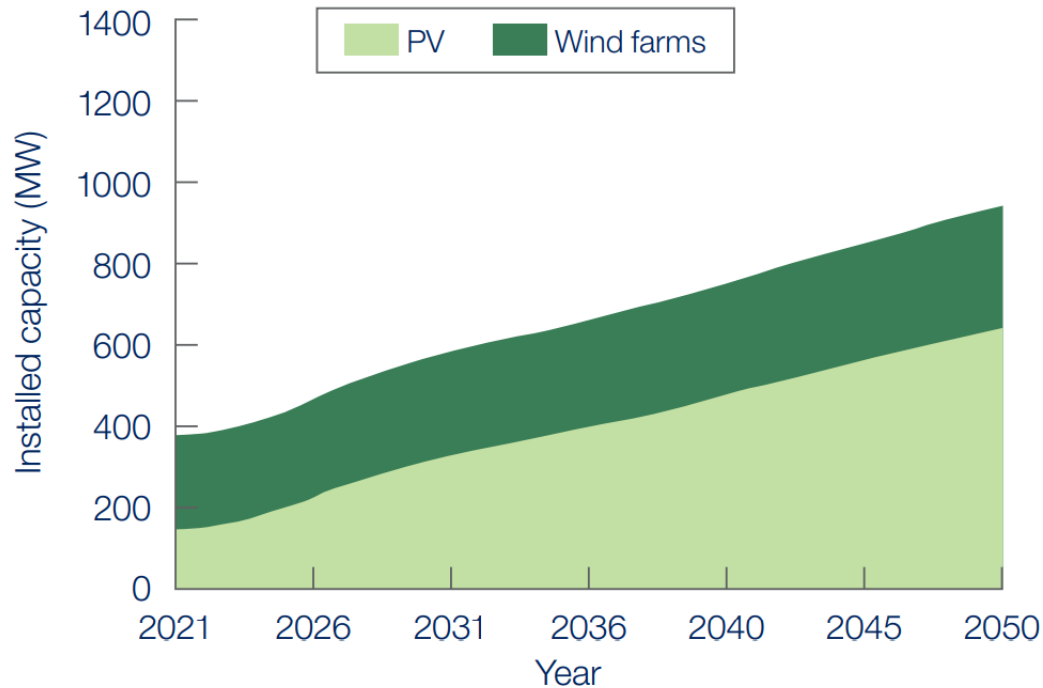
Future annual demand for Lancashire – ‘leading the way’



Electricity demand expected to x2-2.5 to meet net zero



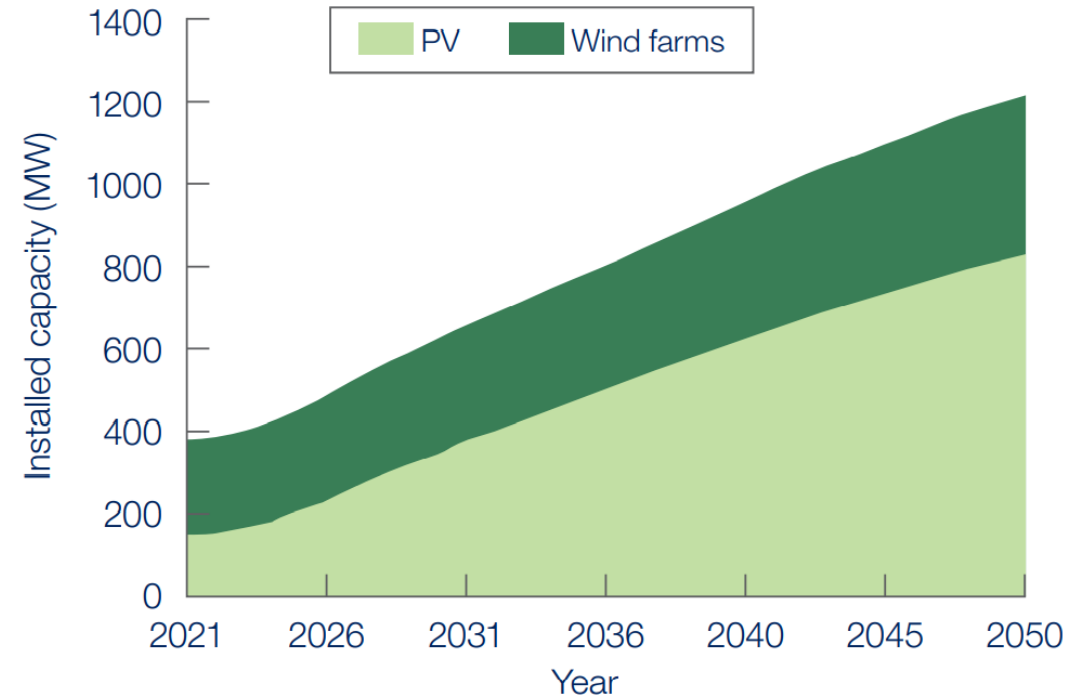
Future installed PV and wind generation capacity – ‘best view’



Non-domestic PV across North West

- Progress: +24MW per year during last four years
- Action required: +44MW per year to be on track with 2050 net zero (DFES 2021)
- More action required to accelerate decarbonisation

Future installed PV and wind generation capacity – ‘consumer transformation’



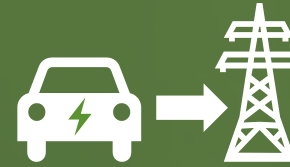
Wind generation across North West

- Progress: +4MW per year during last four years
- Action required: +13MW per year to be on track with 2050 net zero (DFES 2021)
- More action required to accelerate decarbonisation

Our role – leading the North West to net zero



Our business plan 2023-28 – Leading the North West to net zero



1) **Enabling** –
network
capacity &
reliability



2) **Leading by**
example



3) **Helping** our
customers take
action on net
zero

Business

Domestic

Community

c) Project development support



A free service to help North West businesses reduce their energy bills and carbon emissions

1)

Explaining the technologies available

2)

Highlighting the latest funding, grants and financial incentives

3)

Sharing case studies of successful projects

4)

Signposting to local suppliers and installers

5)

Introducing other support available from Electricity North West and our partners

One-to-ones • Website • Events

enwl.co.uk/NetZeroForBusiness

e) Reducing the cost of connections



Ofgem 'access significant code review' new arrangements from 1 April 2023

Different charging arrangements for demand and generation

Demand – no reinforcement charges

Generation – reduced reinforcement charges

Storage treated as generation

	Extension assets	Reinforcement assets at connection voltage	Reinforcement assets at connection voltage +1
Current arrangements	Connecting customer pays 100%	Connecting customer pays a proportion of the reinforcement costs	Connecting customer pays a proportion of the reinforcement costs
New arrangements (Demand)	Connecting customer pays 100%	Fully funded by the DNO via DUoS	Fully funded by the DNO via DUoS
New arrangements (Generation)	Connecting customer pays 100%	Connecting customer pays a proportion of the reinforcement costs	Fully funded by the DNO via DUoS

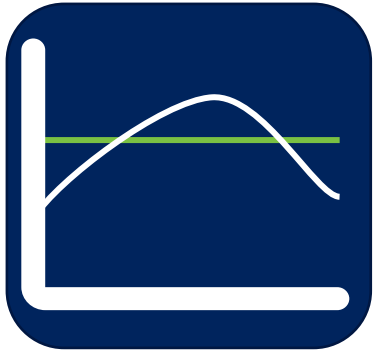
Some exceptions...

What are Flexible Services?



Flexible Services is the term given to the act of reducing or increasing consumption or generation following receipt of a signal, due to a network constraint.

In simple terms, it means a customer generating more or using less electricity after we've asked them to.



A network constraint is when safe network operating limits are breached.

This means the requirement for electricity in the area is greater than the amount that the local network is capable of providing.

In return for providing Flexible Services a customer will **receive payment**





Following feedback from stakeholders we've developed some case studies as examples of who, and how could participate



Demand reduction

A supermarket is looking to provide Flexible Services through a Secure contract by reducing their energy usage at peak times.

[Read more →](#)



Generation

A dairy farmer is looking to provide Flexible Services through a Dynamic contract by increasing their generation following a fault or unplanned network event.

[Read more →](#)



Energy efficiency

A warehouse is looking to provide Flexible Services through a Sustain contract by reducing their long term energy demand.

[Read more →](#)

These are available here: [Flexible Services case studies \(enwl.co.uk\)](https://enwl.co.uk/flexible-services-case-studies)



Email

For all queries relating to this event, or flexibility services, please contact our team at flexible.contracts@enwl.co.uk



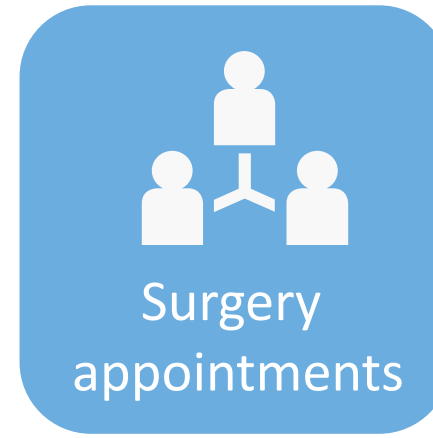
Feedback form

Alternatively, you can fill out our [online feedback form](#)



Register asset

You can [register your asset\(s\)](#) on our website to be notified when we have a requirement in your area



Surgery appointments

We offer 1-2-1 surgery appointments to assist with any queries relating to the process of providing flexibility [Book here](#)



Sign up

[Sign up to our distribution list](#) to receive our newsletters, tender information and event invites



Lynn.tracey@enwl.co.uk



enwl.co.uk/net-zero-for-business



07900 165 889

References

DFES 2021

enwl.co.uk/dfes

**Access significant
code review**

ofgem.gov.uk/publications/access-and-forward-looking-charges-significant-code-review-decision-and-direction



POLL

Where are you on your journey to net zero?



Here for Business



Energy Efficiency Actions

Alasdair Dalzel-Job

Sustainability and Net Zero
Advisor





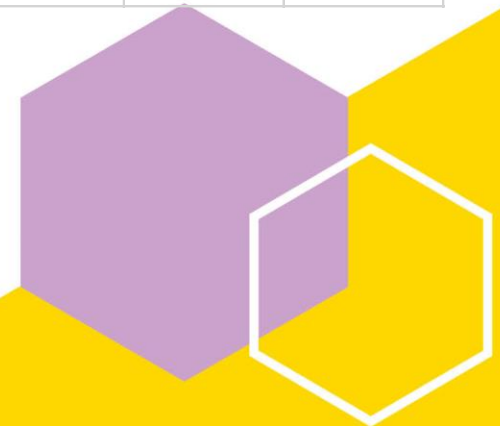
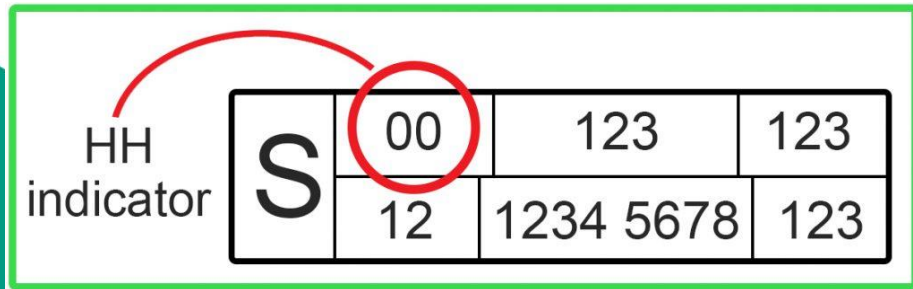
1. Data

Get data from bills

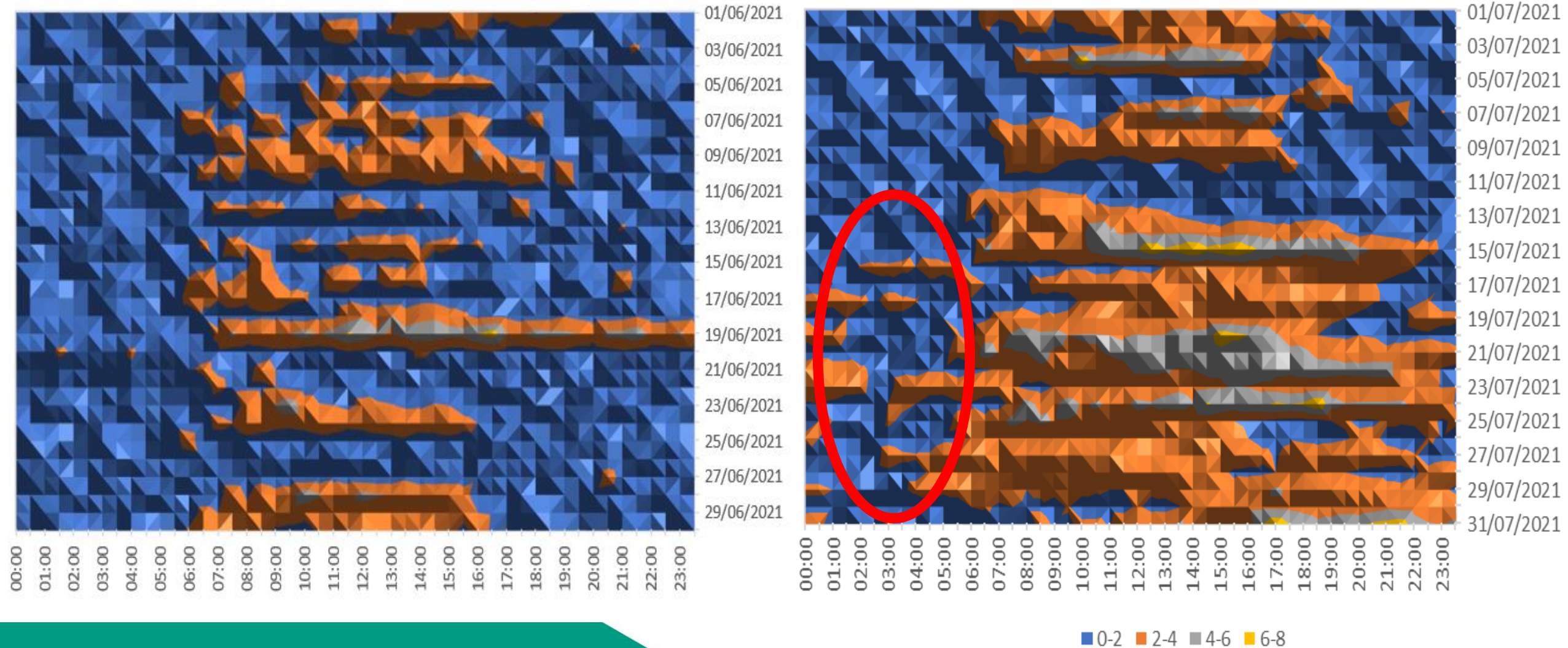
Get Half Hourly data from supplier

Vital to see where your energy is used

DATE	0000	0030	0100	0130	0200	0230
01/02/2022	3.6	3.6	3.6	3.6	3.7	3.7
02/02/2022	3.6	3.6	3.6	3.7	3.6	3.6
03/02/2022	3.6	3.7	3.7	3.7	3.6	3.6
04/02/2022	36.6	37.3	36.7	37.4	36.8	36.5
05/02/2022	36.5	37.8	37.1	35.8	36.3	36.4
06/02/2022	34.7	34.5	36.6	34.2	34.9	35.3
07/02/2022	34.2	35.8	36.4	35.5	35.5	36.2
08/02/2022	33.4	34.4	17.6	3.4	3.4	3.5
09/02/2022	3.4	3.4	3.4	3.5	3.4	3.4
10/02/2022	3.4	3.5	3.4	3.5	3.4	3.4



Half Hourly Data review



2. People

Embed behaviour change within your company and get:

- **Quicker savings**
- **With a lower cost to achieve those savings**
- **Extend the time until you need to invest by reducing wear and tear on kit**
- **Behaviour change is long term**
- **Helps get that low hanging fruit**
- **Applies to domestic as well**



People Power

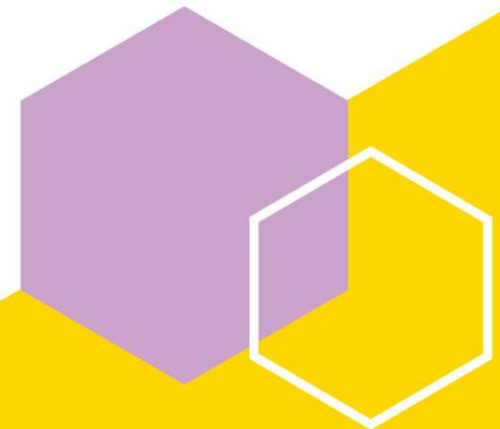
Assign resources to this now

Gather a team

Staff surveys – as they have the best ideas

Competitions & prizes if needed

Continuous feedback is essential



“Lighting can be responsible for 40% of your building’s electricity use.”

Lighting quick wins

Switch off lights when not in use

Optimise the use of daylight – raise blinds

Clean skylights and windows

Label light switches

Review lighting levels in work areas



Lighting next steps



Consider lighting controls – they can save up to 50% in a typical office

Timers

Occupancy sensors (PIR)

Daylight sensors

Upgrade fittings to LED alternatives - 1 year return





Heating quick wins

Use timers, thermostats & TRVs

1°C reduction saves 8% off heating bill!

Don't obstruct heaters & radiators

Don't heat unoccupied rooms

Remove portable electric heaters

Draft proof

Insulate cylinder and pipes

Heating and insulation

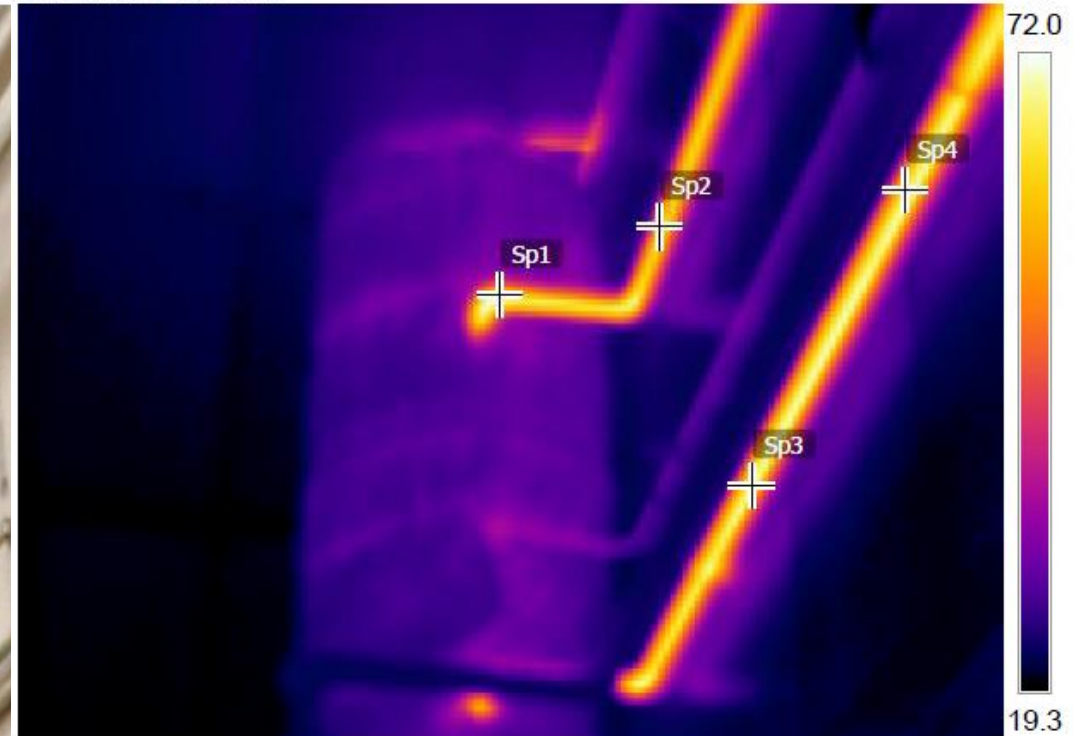
25/03/2014 13:32:35



Heat losses from a 25mm pipe at 70 degC are ~50W/m.

(Source: Carbon Trust)

25/03/2014 13:32:35



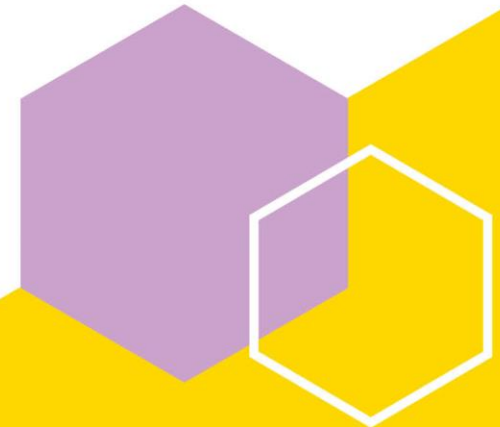
Heating next steps

Roller shutter interlock with heating control

Destratification fans to push air down

Roof insulation

Consider heat pumps



Equipment – Maintenance is key

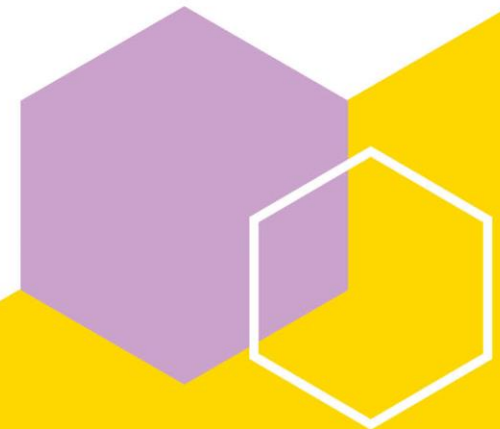
Switch off when not in use

Fix compressed air leaks – 1 leak can now cost £2000 per year

Check pressures

Check compressed air is necessary for the job

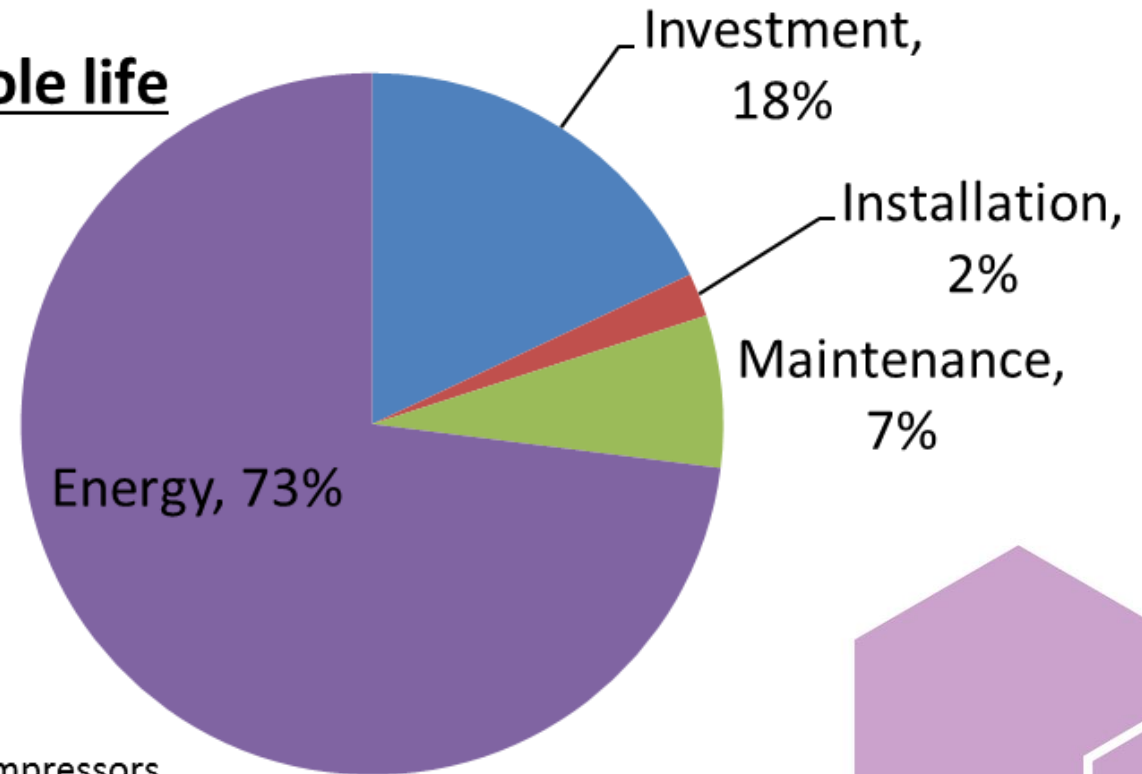
Replace filters and service regularly



“Motors can consume their purchase price in electricity in just the first month or two of use. For a continuously run motor its initial cost is only 1% of its ten-year life cost.”

Marginal Cost Difference

Compressor whole life costs



Source of data: Glaston Compressors

Direct cost savings from using less energy

Reduced Carbon emissions and liabilities

Reduced maintenance costs

Lower demand, decreasing expenditure on transmission and supply

Improved comfort, well-being and productivity

Extended capital replacement cycles

Decreased asset depreciation

Decreased insurance costs

Greater energy security and lower exposure to price volatility

Enhanced flexibility and reliability

Enhanced reputation and increased brand value

Greater competitiveness and market share

Better air quality and lower impact on water and land

Additional job-creation in low-carbon sector

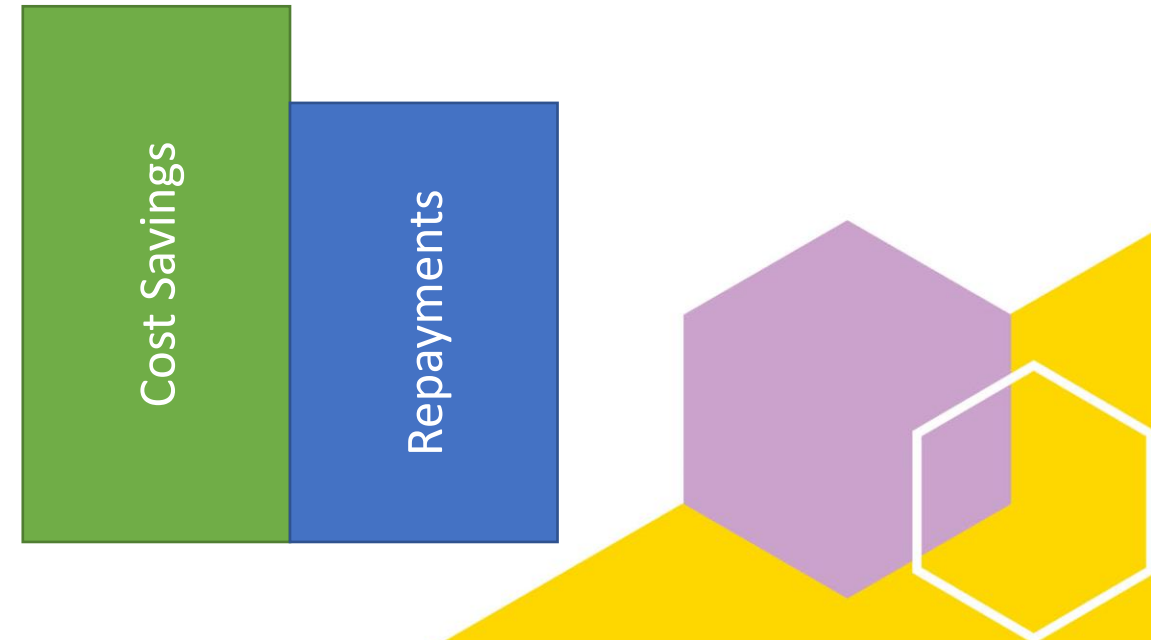
Survival

Financing Options

Bank Loans

Green Asset Finance Schemes

'Pay as you save' schemes



Summary

Remember 50% of opportunities have no cost or low cost

But you will need your people to make this happen

You have still got time; but there's no time to waste!





Our support for

<https://www.businessgrowthhub.com/services/resource-efficiency>

Case studies:

<https://www.businessgrowthhub.com/case-studies/trufab>

<https://www.businessgrowthhub.com/case-studies/metalube>

<https://www.businessgrowthhub.com/case-studies/teledata>

HERE FOR BUSINESS

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Here for Business

Thank You.

[https://www.businessgrowth
hub.com/here-for-business](https://www.businessgrowth
hub.com/here-for-business)





POLL

What element of green technologies are you most interested in?





GREEN ECONOMY

Addressing the Energy Crisis

CIMA

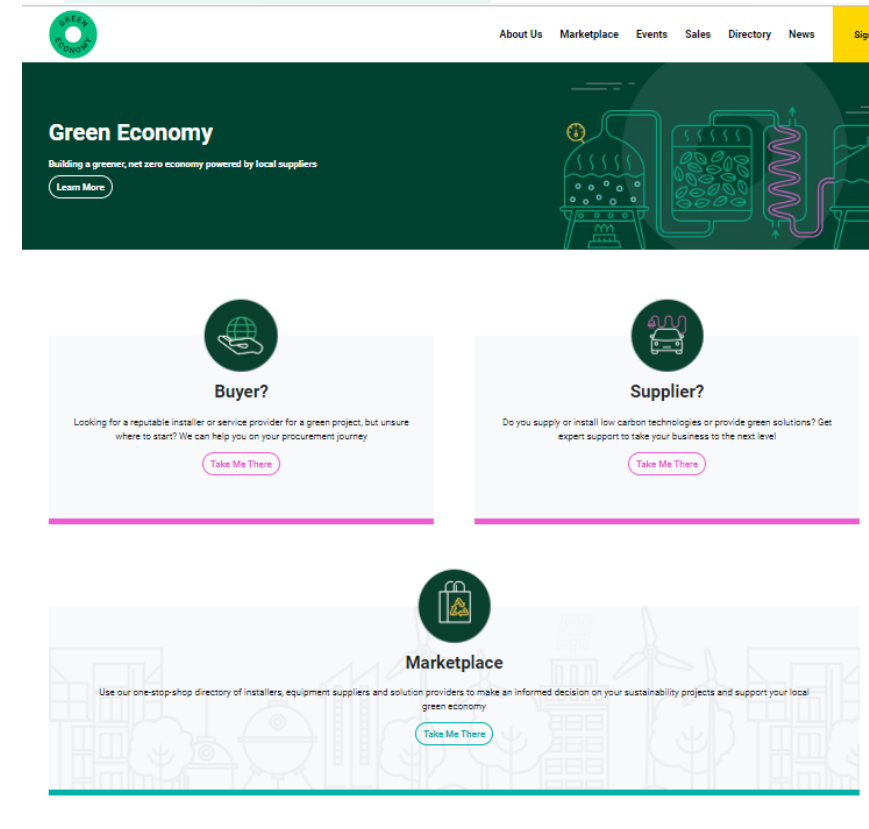
#HereForBusiness

Vicky Wilding



Green Economy

- **Building a greener, net zero economy powered by local suppliers**
- Improve the competitiveness of the green tech and services supply chain
- Overcome the market failures around uptake of low carbon tech
- New rebranded service and website - designed to be more accessible to buyers.





Marketplace

- **An** online searchable database of local low carbon, sustainable and environmental products and services - connecting buyers to suppliers of green tech and services
- Improved access and confidence to buyers around accreditation and assurance.
- Raising the profile of green tech installers and providers

Marketplace
Find your perfect, green, project partner.

Search Marketplace
Our directory of installers, equipment suppliers and solution providers is here to help you make an informed decision when sourcing local suppliers for project or business. Search for the service you need e.g. electric vehicle installation, LED light fitter, waste management, and filter the results based on your requirements.

Search
env

Location

Services

Accreditations

Appointed Health and Safety Competent Person

ISO 14001

ISO 14064

ISO 22301

ISO 27001

ISO 45001

Sort by:

Cantec Energy Solutions Ltd
Cantec E.S – an independent energy and controls Consultancy - was formed by Chris Norburn and commenced trading in May 2021. Cantec Energy Solutions aims to support its clients in both the public and...
[Find out more →](#)

EGEMS
We are a B2B environmental, sustainability commercial and construction sectors.
[Find out more →](#)

Ligerio Design Ltd
We are a UK-based designer and manufacturer of bespoke LED lighting solutions. We pride ourselves on reducing our customers' energy bills by designing and manufacturing ultra-efficient LED lighting systems. This is achieved by utilising the latest technology and prime branded components to provide the best solution for any facility. This will reduce your carbon footprint and minimise energy usage. We manufacture and supply a full range of industrial, commercial, and architectural lighting products. All our products are designed using only prime-branded components, with the latest LED technology and control gear to provide maximum energy savings and efficiency. We have completed many projects via direct supply or with our installation partners and distributors. These projects have been into many high-end production, office space and manufacturing facilities. Our installations have improved the working environment by vastly increasing the light levels to comply with certain audit requirements.
[Find out more →](#)

Ligerio Overview
We are a UK-based designer and manufacturer of bespoke LED lighting solutions. We pride ourselves on reducing our customers' energy bills by designing and manufacturing ultra-efficient LED lighting systems. This is achieved by utilising the latest technology and prime branded components to provide the best solution for any facility. This will reduce your carbon footprint and minimise energy usage. We manufacture and supply a full range of industrial, commercial, and architectural lighting products. All our products are designed using only prime-branded components, with the latest LED technology and control gear to provide maximum energy savings and efficiency. We have completed many projects via direct supply or with our installation partners and distributors. These projects have been into many high-end production, office space and manufacturing facilities. Our installations have improved the working environment by vastly increasing the light levels to comply with certain audit requirements.

Services / products
 LED Lighting

CSR Overview
 Environmental Policy

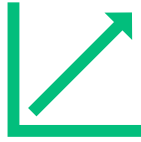
Net Zero Reporting
 Net Zero target in place
 Recolight Member

Trading Address
103A High Street Lees
Oldham
Greenfield
Greater Manchester
OL4 4LY

Areas Covered
 North West

Activate Win
Go to Settings to

HEADLINES – 2019/2020



8.64BN
SALES



3,144
COMPANIES

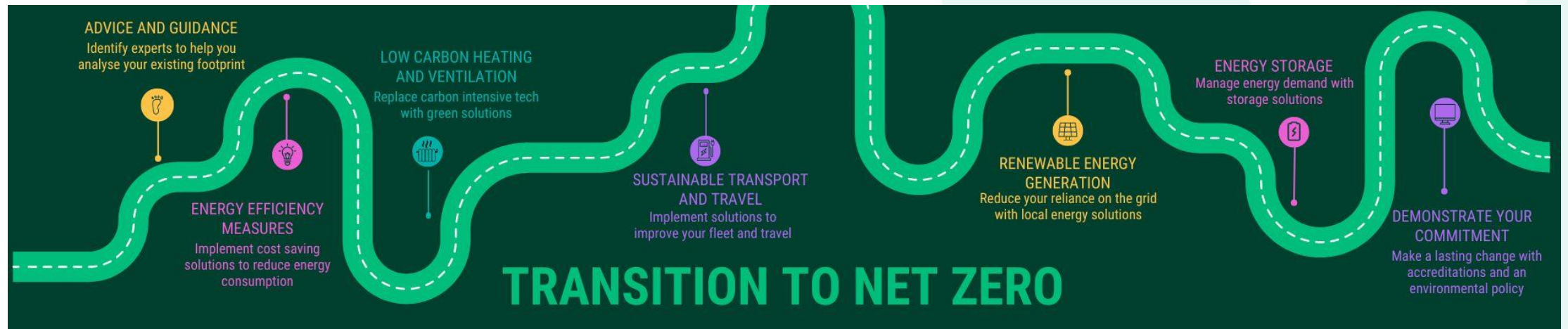


58,736
FTE EMPLOYEES



National & International context:

- Global sales - £7.1trn (up 14% on 2018/19)
- UK sales growth rate = 7.4%
- GM sales growth rate = 7.1%
- GM sales 2nd behind London and the South East





POLL

What are the key barriers to your business achieving net zero?





GMCA GREATER
MANCHESTER
COMBINED
AUTHORITY

In partnership with
**NORTHERN
POWERHOUSE**

 **European Union**
European Regional
Development Fund

Thanks

vicky@greeneconomy.co.uk

www.greeneconomy.co.uk

www.businessgrowthhub.com/here-for-business