



Camden and Brent
Business Climate Challenge
Saving energy and money for businesses

The central graphic is set against a blue background and features several circular icons connected by dashed lines. On the left, a large circle contains icons for a gear with an upward arrow, a lightbulb, and buildings. To its right are two smaller circles: one with a clipboard and a line graph, and another with a handshake and a pound coin. In the center, a large icon shows a lightning bolt and a building with a pound coin. To the right of the central text are three more circles: one with a hand holding a leaf and a pound coin, one with a lightbulb containing a leaf, and one with a lightning bolt and a downward arrow.

Agenda

09.00 Registration

Light refreshments

Networking

9:25 – 9:35 Welcome and Introduction, Camden Climate Alliance – Abigail Roberts

Housekeeping

Introductions

Overview of Camden and Brent Business Climate Challenge

9:35 – 10:35 Introduction to Energy Management – Turner & Townsend

What is Energy Management?

6 steps to achieving net zero

Grants and resources

10:35 – 10:50 Summary and questions – Turner & Townsend

10:50 – 11:05 Refreshment break

Movement break

11:05 – 11:35 IO-Gen, Energy Management dashboard demonstration – IO-Gen

How it works

Using the tool

Live demonstration

11:35 – 11:45 Questions – Turner & Townsend

11:45 – 12:00 Summary – Turner & Townsend

Key takeaways

12:00 – 12:30 Event close

Welcome and Introduction



Saving energy and money for businesses

Meet the presenters

Camden
Climate Alliance



Abi Roberts
Climate Alliance Lead



Qasim Akhtar
Senior Consultant



Shraddha Nair
Consultant



Jed Palma
Energy Management
platform founder



Imogen Stewart-Green
Junior Consultant

The Business Climate Challenge

What is the programme?

A free energy efficiency programme to help 125 businesses reduce their energy costs and cut carbon emissions.

It is a follow-on programme from the successful Mayor of London's Business Climate Challenge (BCC) which has supported more than **200 London businesses** which included **46 Camden Climate Alliance businesses** and **22 Fitzrovia partnership businesses** between 2022-23.

Brent council successfully executed a similar programme, assisting **54 businesses** through audits and grant funding opportunities.

What can my business expect to receive in the Camden and Brent Business Climate Challenge?

- An energy audit
- A recommendation report – actions, savings, ££ payback
- The opportunity to apply for grant funding in the FY 2024/25 to facilitate the implementation of recommendations from the report
- Access to an Energy Management dashboard
- Training – x6 sessions over the course of the programme

Camden
Climate Alliance



The
Fitzrovia
Partnership
Business Improvement District


Brent
for business

 Camden and Brent
**Business Climate
Challenge**
Saving energy and money for businesses

The challenge?

Reduce your energy consumption by **10%**

BCC Pilot 2020-21:

Participants reduced energy consumption by **16%** on average in 9 months, saving **£8,300** in energy costs.

BCC scale up 2022-23:

Within the first 9 months, participating businesses that received their recommendation report more than 6 months ago, were already on track to save **9%**

Training sessions to be offered through CBBC

Business
Sustainability Series:
Upcoming Training Sessions



2024
June 19/06, 9am-12pm: Energy Management Best Practice, King's Cross, [In person]

July 11/07, 11am-12.30pm: Behaviour Change & Employee Engagement, 11am - 12.30pm [Online]

Sept Energy-saving technologies and funding [In person]

Oct Communicating your sustainability journey [Online]

Nov Accredited Carbon Literacy Training, 1 day [In person]

2025
Jan Understanding scope 3 emissions [online]

Delivered through:



Open to all businesses based in Camden, Brent and The Fitzrovia Partnership

What do you get from the Business Climate Challenge?

Participating in the **Camden and Brent Business Climate Challenge (CBBCC)** provides tangible economic, environmental and social benefits that will help you future proof your business.



Reduce energy bills



Access peer-to-peer learning



Support London's net zero efforts and be recognised



Opportunity to apply for grant funding



Access expert technical support and upskill your staff



Improve the value and health of your workplace



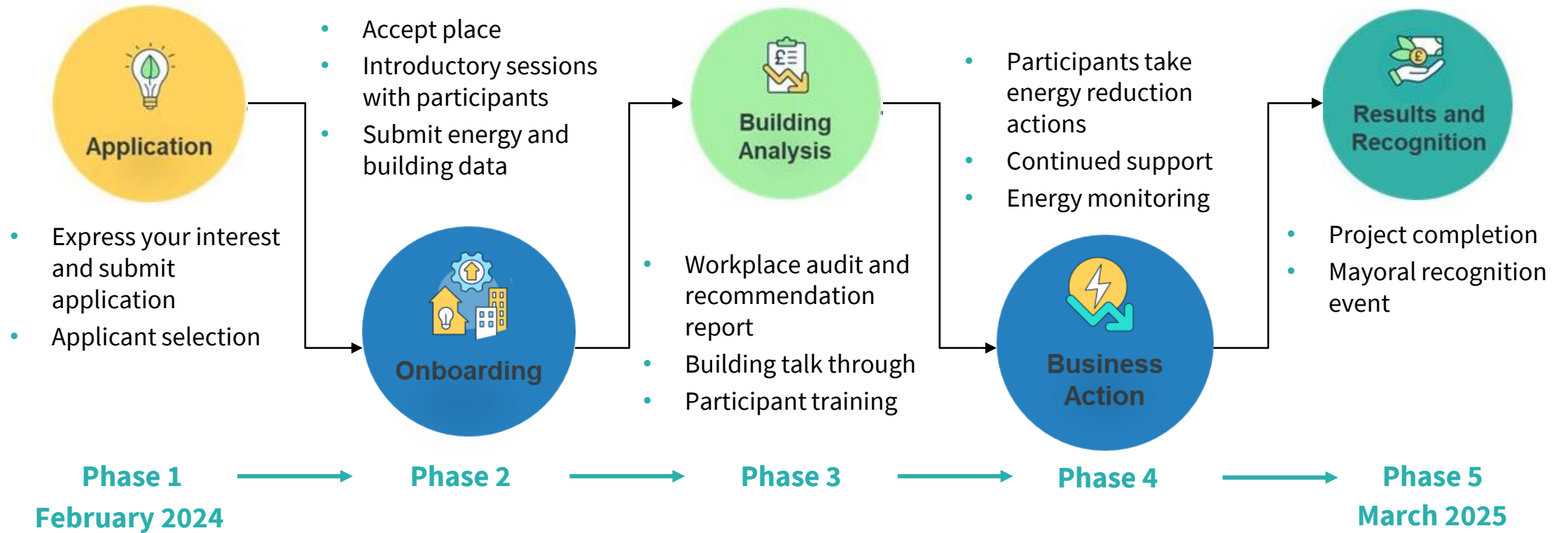
Attract talent, clients and engage staff

Clean Break Theatre – BCC 2022-23



Link to video: [Clean Break Theatre Company - Business Climate Challenge \(youtube.com\)](https://www.youtube.com/watch?v=...)

Business Climate Challenge Journey



Recognition for leading businesses

Business engagement, training sessions and knowledge-sharing activities/event

Introduction to Energy Management



Saving energy and money for businesses

What is Energy Management?

*The process of monitoring, controlling
and conserving energy in a building
or organisation*

Why is Energy Management important?

Manage costs

Increased awareness of energy demand

Manage carbon emissions

Forecast and measure energy efficiency

Inform business decisions

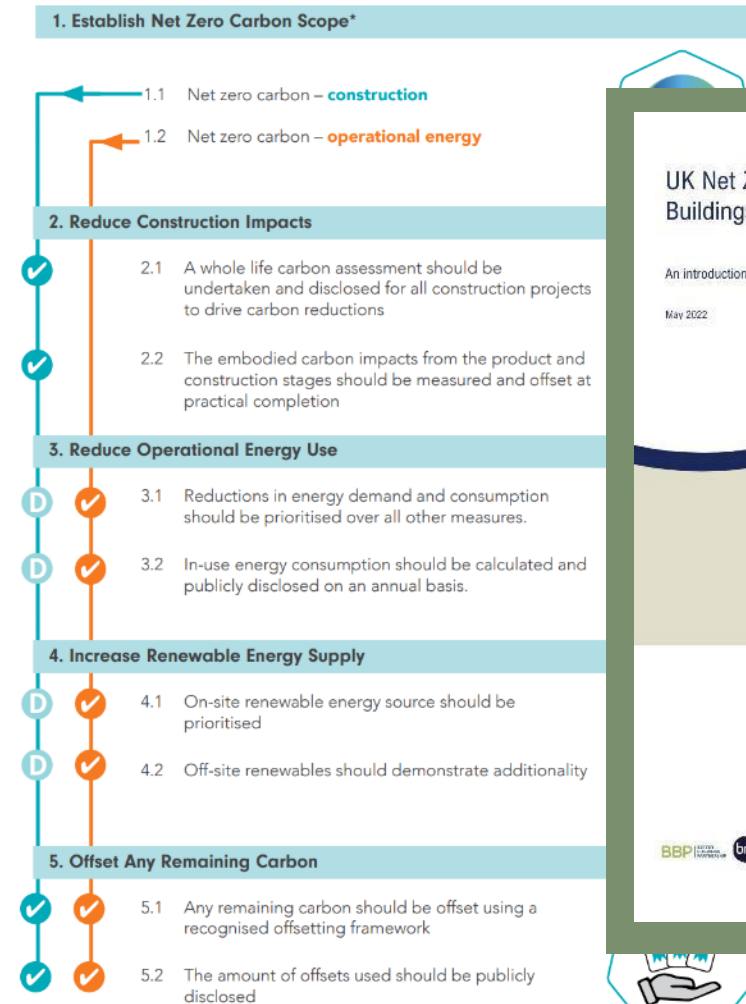
Influence behaviour

Net zero buildings

What is a net zero building?

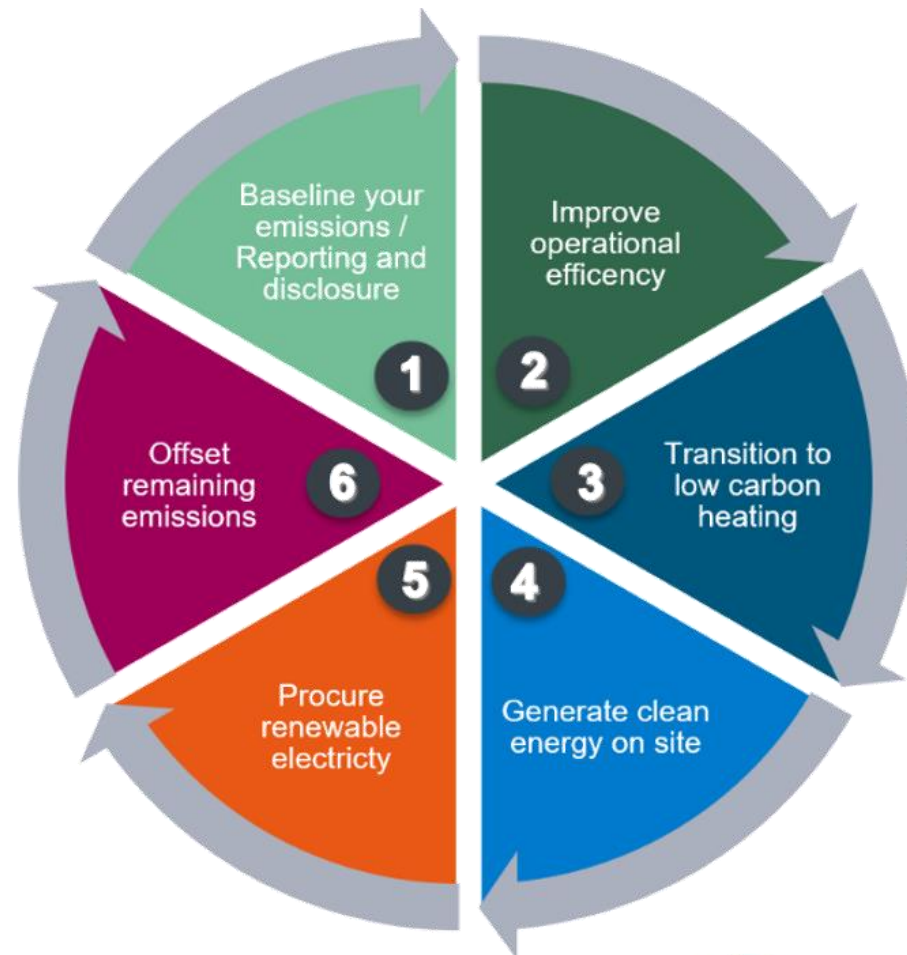
A '**Net Zero Carbon – Operational Energy**' asset is one where **no fossil fuels** are used, all **energy use has been minimised**, the building meets the local energy use target (e.g., kWh/m²/year) and **all energy use is generated on- or off- site using renewables** that demonstrate **additionality**. Any residual direct or indirect emissions from energy generation and distribution are '**offset**'.

Definition by LETI, RIBA and WLCN



How can we achieve net zero buildings?

1. Baseline, reporting and disclosure
2. Improve operational efficiency
3. Transition to low carbon heating
4. Generate clean energy on site
5. Procure renewable electricity
6. Offset remaining emissions



Baseline, reporting and disclosure



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Baseline



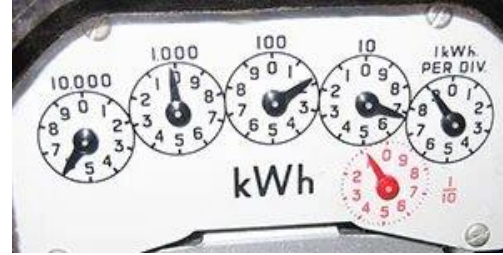
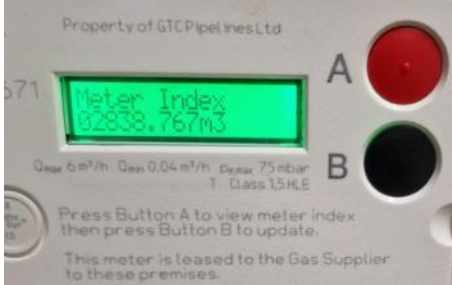
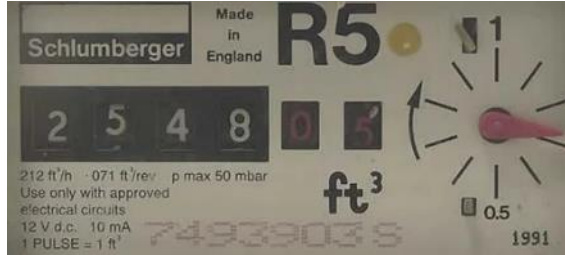

Baseline – Starting point, energy consumption before joining BCC to measure your progress

Creating a baseline requires:

- Regular meter readings
- Tracking meter readings
- Converting meter readings into energy use (kWh), carbon (tCO₂e)

Total Energy Use	Normalised energy
<ul style="list-style-type: none"> • Quarterly • Monthly • Weekly • Daily 	<ul style="list-style-type: none"> • kWh per capital (e.g. employee, footfall) • kWh per unit of occupied space (e.g. m²) • kWh per unit of revenue

Reading meters

Electricity	Digital Meter	Dual Meter	Dial Meter
	 <p>Meter reading is 042410 kWh</p>	 <p>Meter reading is 12049kWh, 77749kWh</p>	 <p>Meter reading is 60279kWh</p>
Gas	Digital Meter	Imperial Meter	Dial Meter
	 <p>Meter reading is 02838m³</p>	 <p>Meter reading is 2548ft³</p>	 <p>Meter reading is 7120ft³</p>

- Gas is measured in cubic meters **m³** or cubic feet **ft³**
- Gas is billed as **kWh**
- If no meter readings are taken, **suppliers will estimate electricity and gas use**

Meter readings and bills - Electricity

Your Energy Charges In Detail

Electricity	Supply number	S	3	801	204
Postcode area alpha identifier: TBC					
[Redacted] (31st January 2023 - 27th February 2023)					
Energy Charges for Meter	F88A 16735				
31st Jan 2023	156035.0 Customer reading				
28th Feb 2023	158285.0 Customer reading				
Energy Used	2250.0 kWh @ 14.83p/kWh	£333.68			
Standing Charge	28 days @ 25.64p/day	£7.18			
Energy charges before VAT and CCL		£340.86			
Climate Change Levy (CCL) @ 0.00775 £/kWh on 2250.0 units		£17.44			
Subtotal of charges before VAT		£358.30			
VAT @ 20% on £358.30		£71.66			
Total Electricity Charges		£429.96			

Energy used - consumption in kWh

Standing charge - fixed daily charge covering supply of electricity to your property

MPAN number - Electricity supply number

Meter number

Electricity meter reading (kWh)

Climate Change Levy - this is an environmental levy charged on business energy use

Tariff type

About Your Tariff

Electricity

Tariff Name
Payment Method
Agreement End Date
Estimated Annual Usage

Green Octopus 24M Fixed
Direct Debit Monthly
2nd May 2023
26269.1 kWh

Electricity mix

We believe that **renewable energy is no longer an opportunity - it's a responsibility**. Because of that, every single one of our business tariffs are powered by REGO-backed **100% renewable** electricity. As a group we also invest heavily in renewable generation; in fact, we're proud to say that the solar farms we've funded generate over 40% of all the UK's large scale solar.



Meter readings and bills – Gas

Gas	Meter Point Reference:			Meter Point Reference - Gas supply number
	Supply Address:			Business address
Flexible Octopus (1st January 2024 - 11th March 2024)				
Energy Charges for Meter	E6S00212751456			Gas meter number
1st Jan. 2024	8083.0 Estimated reading			Gas meter readings (m³)
12th March 2024	8247.0 Customer reading			
Consumption	164.0 Units (m ³)			
Energy Used*	1816.4 kWh @ 6.96p/kWh	£126.44		Energy used - consumption converted to kWh
Standing Charge	71 days @ 26.16p/day	£18.57		
Subtotal of charges before VAT		£145.01		Standing charge - fixed daily charge covering supply of gas to the property
VAT @ 5.00%		£7.25		
Total Gas Charges		£152.26		

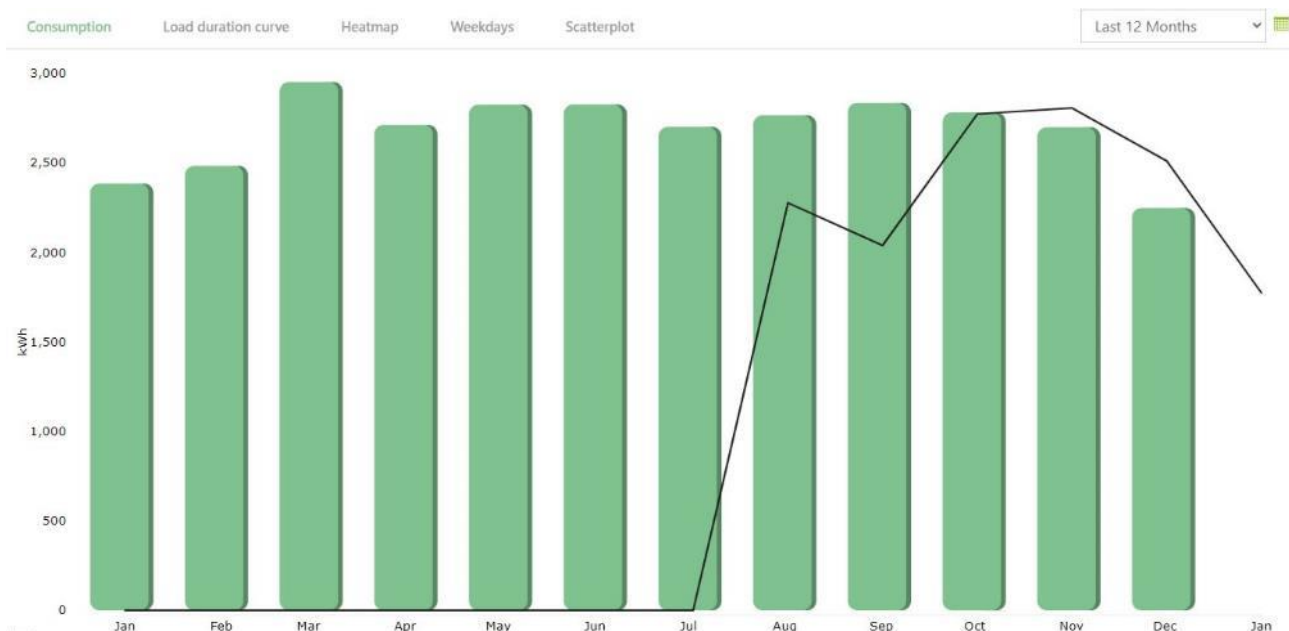
About Your Tariff

Prices do not include VAT unless otherwise noted.

Gas

Tariff Name	Flexible Octopus	Tariff type
Product Type	Variable	
Payment Method	Direct Debit	
Unit Rate	6.96p/kWh	Unit rate - cost of gas per kWh used
Standing Charge	26.16p/day (£95.48/year)	
Price Guaranteed Until	Not applicable	Standing charge rate - charge per day
Early Exit Fee	None	
Estimated Annual Usage*	5177 kWh	

Visualising energy data



Baseline year

- This shows the energy data from the previous year, which will be the reference point to compare after the recommended changes have been actioned.
- IO-GEN Energy Management platform can be used for this.

Annual energy consumption

- 12 months of energy data
- Trends across the year
- Understand the peaks
- What energy is necessary and out of hours

Target setting

- CBBCC target is **10% energy reduction**
- **Baseline energy consumption – 10%** = Year 1 target energy consumption

Reporting

- Can incorporate into other targets too (e.g. net zero)
- Disclosure of energy consumption
- IO-Gen platform is the programme's reporting tool
- Smart meters reporting automatically
- For analog/older meters, participants need to report monthly readings

Operational efficiency

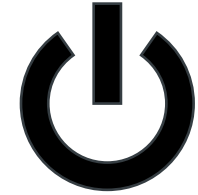


Saving energy and money for businesses

Watts - Understanding the units

A Watt (W) – Is a measure of how much power an appliance needs to run

- **1 Watt (W)** = 1 Joule per second ($1W = 1 J/s$)
- **1 kilowatt (kW)** = 1,000 Watt (W)



5W LED bulb	50W laptop	6.5kW industrial dishwasher	1,240kW condensing boiler
			

kWh - Understanding the units

Kilowatt hour (kWh) is a measure of how much energy you're using

- The number of kilowatts you're using per hour
- It's a unit of measurement
- It is also the unit that energy is sold in

Kilowatt hour
kWh
A measure of how much energy is used and a unit of energy that is sold
Example: 2kW dishwasher x 2hrs = 4 kWh

Dishwasher	
Instant power requirement?	2kW
Power consumption of 1 x cycle (2 hours)	2kW x 2h = 4kWh
Cost to run a cycle (£0.20/kWh)	£0.20/kWh x 4kWh = £0.80
Cost to run the dishwasher once a day, 365 days	£0.80 x 365 = £292

Time for an exercise

Kilowatt hour

kWh

A measure of how much energy is used.

Electricity is charged in **Kilowatts per hour (kWh)**.

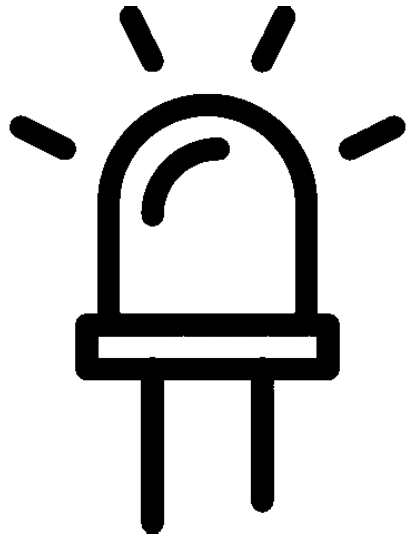
To convert watts to kilowatts, **divide by 1,000**.

So, **3,000 watts** is the **same as 3 kilowatts**, this means an electric kettle uses 3 kilowatts of electricity per hour.

Work on your tables to calculate how much energy is used by the various appliances. Use an energy price of £0.20/kWh in your calculations.

$$\begin{array}{ccccccc}
 \text{Lightbulb icon} & \times & \text{Alarm clock icon} & \times & \text{Banknote icon} & = & \text{Power button icon} \\
 \text{kW} & & \text{time} & & \text{cost per kWh} & & \text{total energy cost}
 \end{array}$$

LED lighting usage



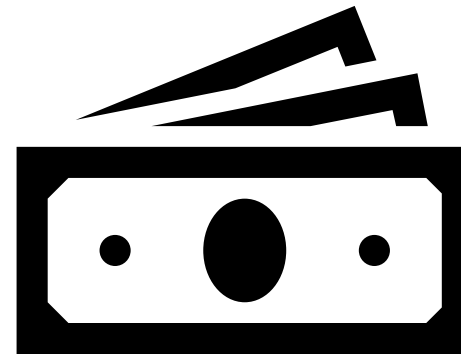
5 W

X



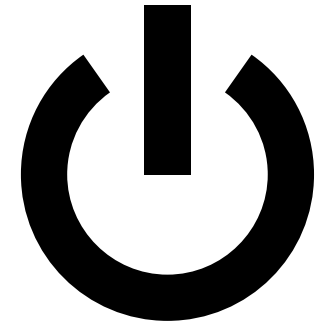
time

X



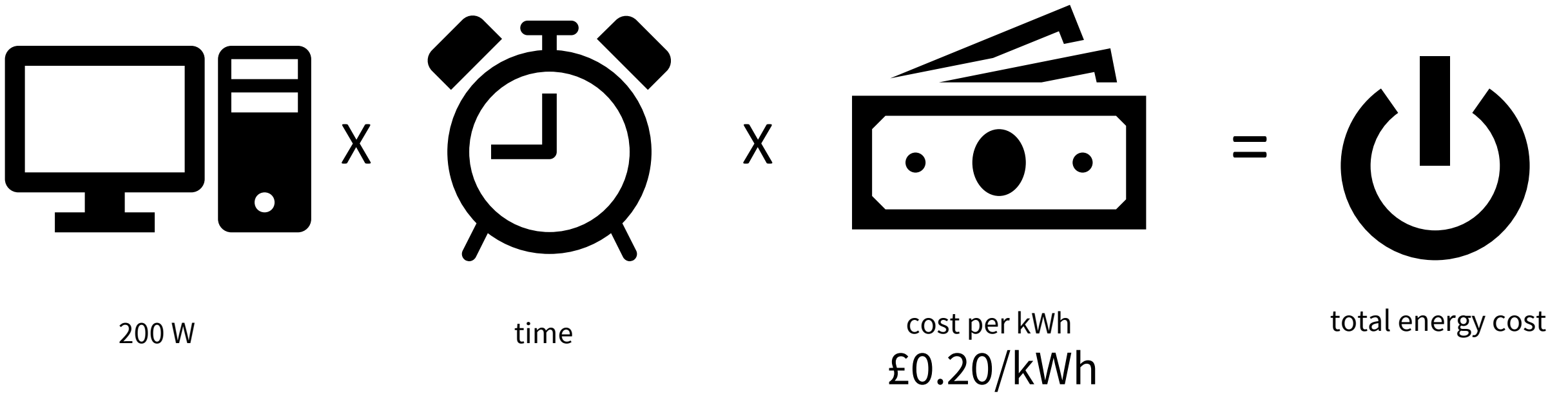
cost per kWh
£0.20/kWh

=



total energy cost

Desktop computer usage



Kettle usage



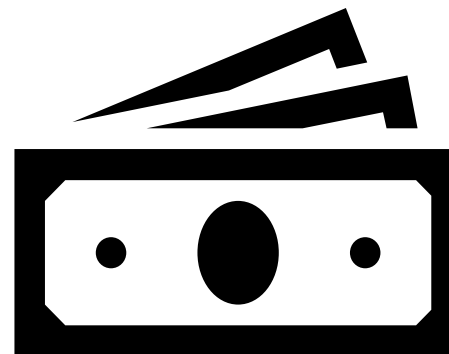
3 kW

X



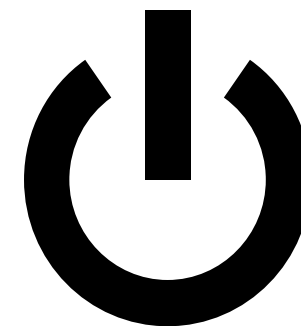
time

X



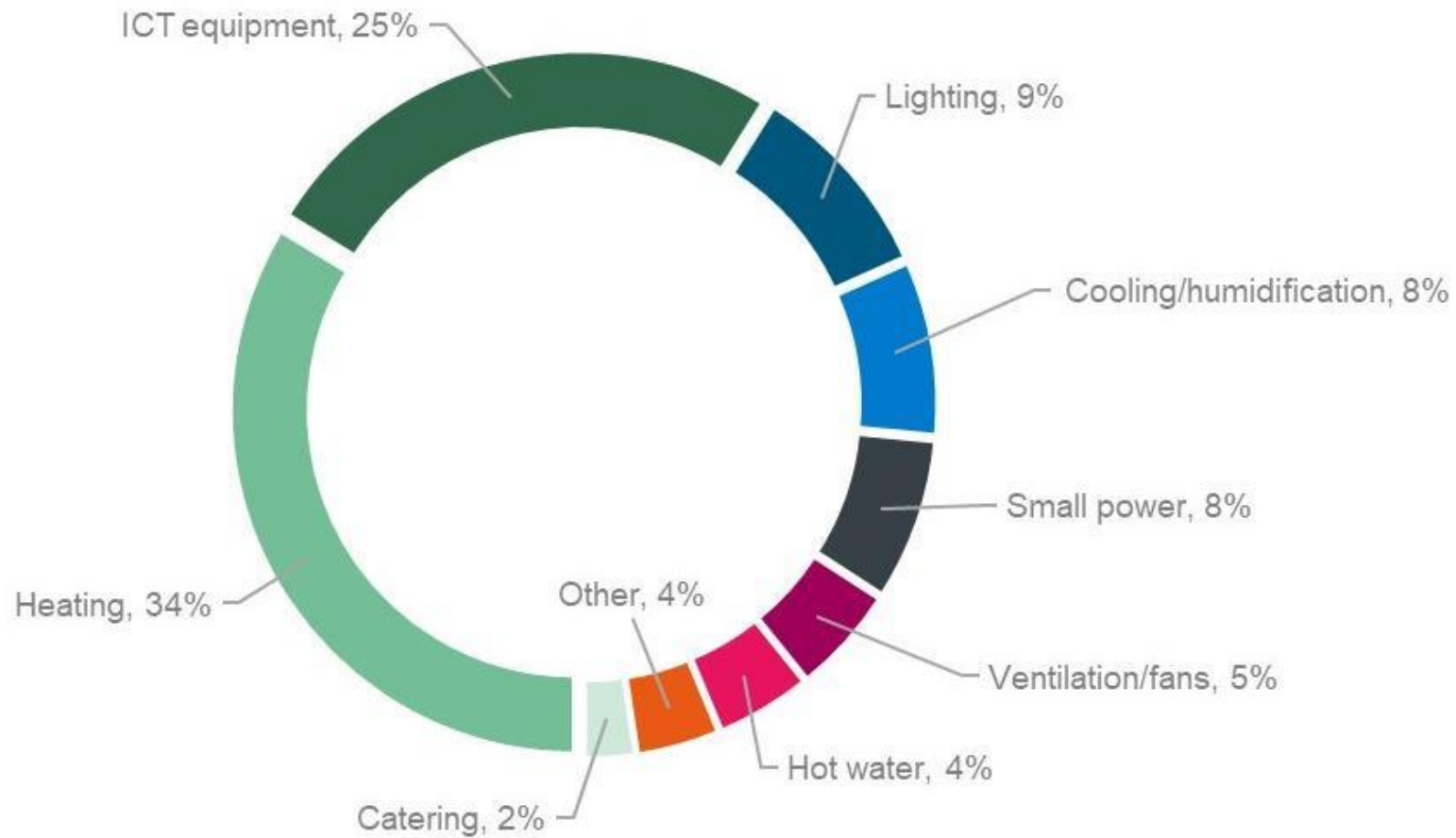
cost per kWh
£0.20/kWh

=



total energy cost

Typical usage in offices (UK)



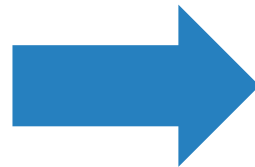
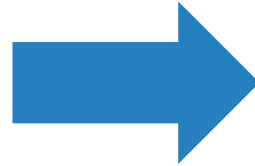
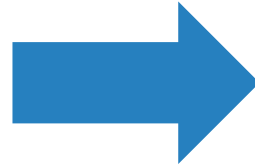
Improving operational efficiency

What can we be looking at to improve the efficiency of our buildings?

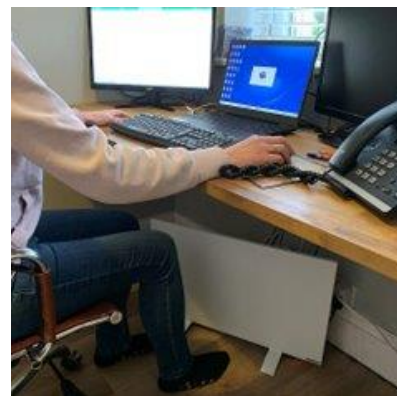
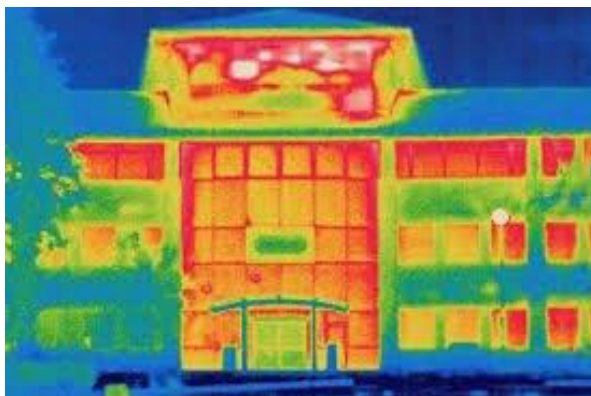
- Equipment on when needed
- Automation of control systems: Business Management System (BMS), sensors such as Passive Infra-Red (PIR) for lighting
- Checking that temperature set points are optimised for heating and cooling systems
- Regular maintenance of equipment
- Behaviour change and staff engagement
- Energy management and corporate sustainability policy



Using more efficient equipment



Using more efficient equipment



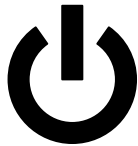
Quick tips for saving energy



Provide regular meter readings to energy suppliers



Check thermostats and timers are set to the appropriate time, day, and temperature settings for the building



Encourage staff to switch off IT equipment and lighting after use



Arrange workspaces to make best use of natural light, reducing the need for artificial lighting



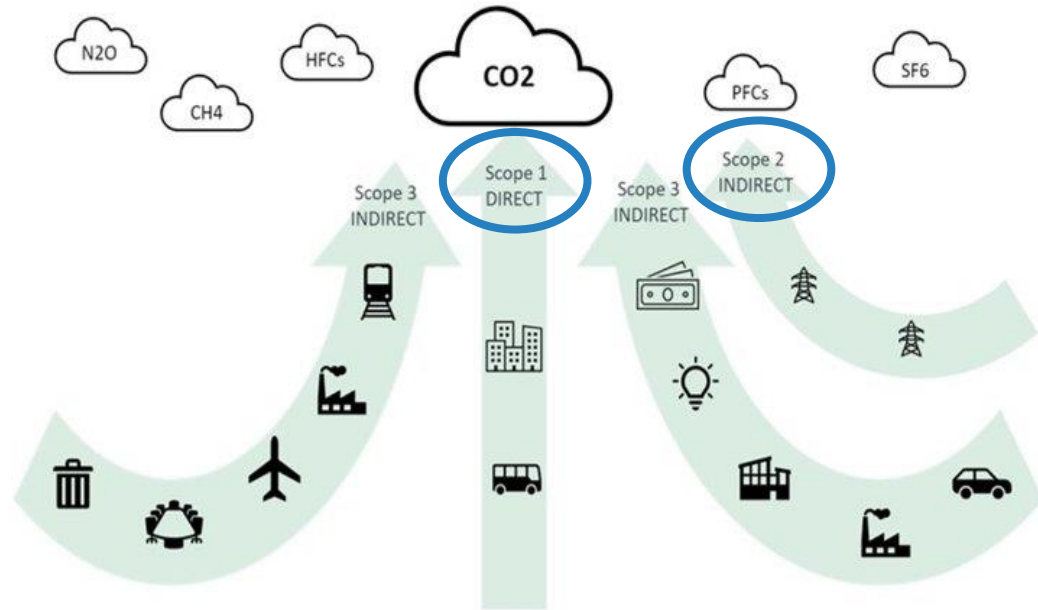
Run staff engagement workshops to disseminate and encourage sustainable practices

Transition to low carbon heating



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Energy and Carbon



Scope 1 – Direct emissions that are controlled by the reporting business
Includes: gas, oil, biomass

Scope 2 – Indirect emissions generated from purchased energy
Includes: Grid electricity, heat networks

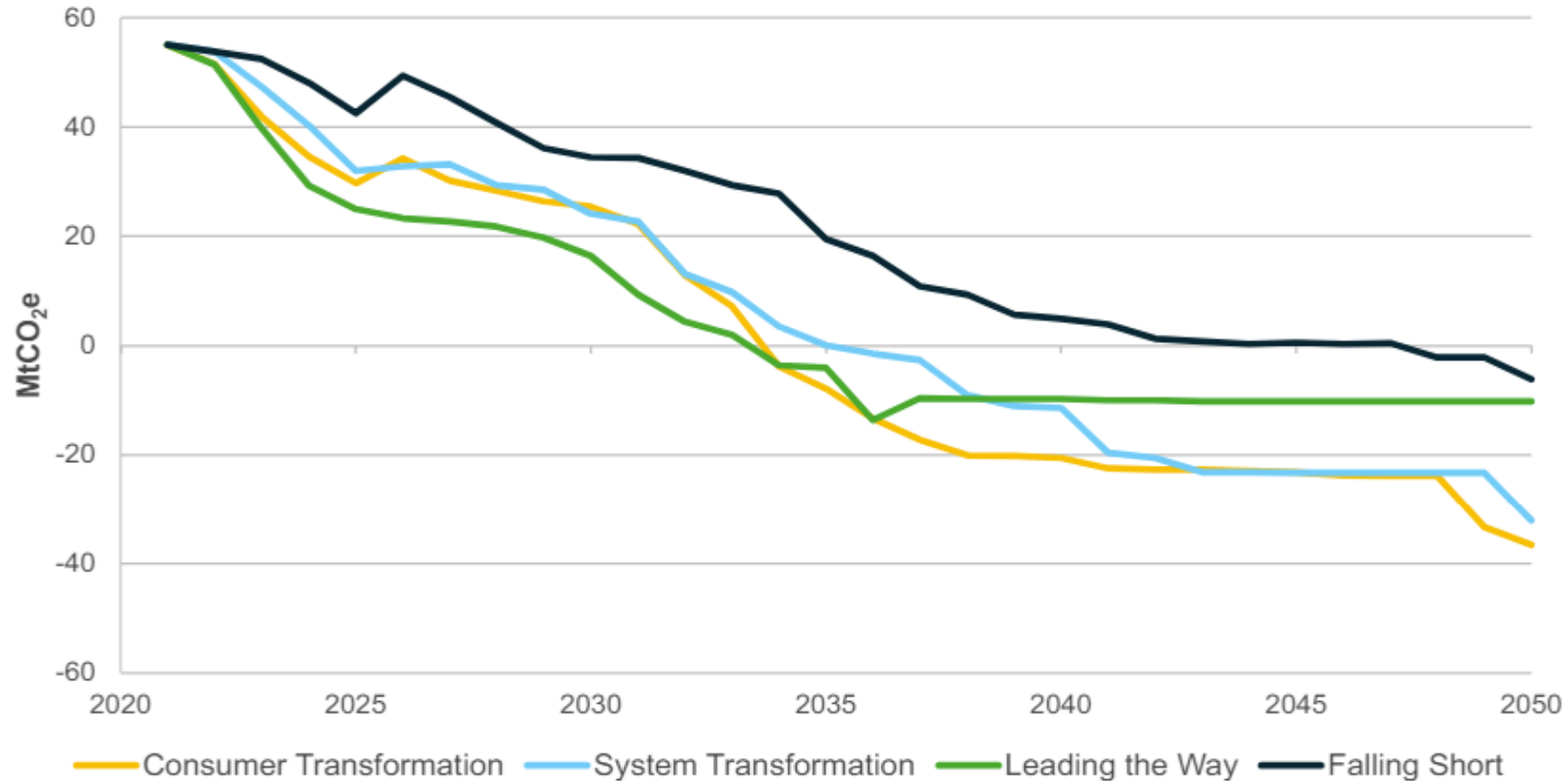
Electricity Grid Generation	%
Fossil Fuel (Coal, Gas)	43.3%
Renewables (Solar, Wind, Hydro)	35.0%
Other (Nuclear, Biomass)	23.3%

Carbon calculators allow you to measure your carbon emissions based on the source of energy and how much is used (kWh).

kWh of energy used X emission factor = carbon dioxide eq

Intensity of the electricity grid

Figure NZ.04: Power generation emissions out to 2050



Low carbon heating

Low carbon heating sources

The transition to low carbon heating and cooling systems includes removing old inefficient boilers and using smart replacements:

- Using air source heat pumps
- Utilising London's heat networks

Reducing heat loss/heat gain

Operate the building as efficiently as possible, minimising waste through better insulation and draft proofing measures

- Installation of double or triple glazing
- Insulation around pipes from heating systems
- Improving insulation from retrofitting

Efficient heating controls

Controlling your heating through efficient controls that optimises the equipment you have

- Thermostat measures
- Auto off
- Timers in place
- Zoning your heating



Generate clean energy on site



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Onsite generation

Benefits:

Energy security and grid resilience

- Onsite generation reduces reliance on the National Grid, enabling businesses to have greater control over energy supply.
- Businesses are better equipped to withstand power outages or disruptions on the grid.

Cost and carbon savings

- By generating energy onsite, businesses are less exposed to fluctuations in energy prices, resulting in lower bills.
- Onsite generation reduces carbon emissions associated with business operations and energy use.

Considerations:

Roof access

- Roof access allows the potential for multiple renewable energy generation options, such as solar PV.

Planning and Orientation

- An audit optimises the location of the solar PV array to achieve maximum energy generation such as positioning solar to be south facing.

Building ownership/lease

- The ability to implement of renewable energy generation can depend on the ownership or tenancy of your business's workspace.



Conservation areas and listed buildings



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Conservation areas and listed buildings

Conservation areas and listed buildings hold cultural, architectural and identity value, necessitating careful preservation and sustainable management over time.

To make alterations to a property in a conservation area or a listed building, **planning permission will usually be required**. For listed buildings, **listed building consent** will also be required.

Listed buildings

- A listed building is a building that is of national historical or architectural interest.
- Listed buildings are usually assigned one of three grades, **Grade I, Grade II* and Grade II**.
- Camden has over **5,600 listed buildings**.

Conservation areas

- Conservation areas are areas of land that have been designated or labelled as being of special architectural or historical interest.
- Camden has **40 conservation areas covering around 50% of the borough**.
- Four Camden conservation areas - **Belsize, Hampstead, Primrose Hill and South Hampstead** have **'Article 4 Directions'**
 - This restricts the removal of historic doors, windows, boundary walls, railings and changes to roofs and chimneys.

Planning requirements in conservation areas

Energy conservation measure	Is planning permission usually required?	Planning requirements
External wall insulation	Yes	Typically, planning permission is required.
Roof insulation	No	Typically, deemed to be permitted development.
Cavity wall insulation	No	Typically, deemed to be permitted development.
Double glazing	Yes	Planning permission may not be required if there is no change in shape and dimensions of windows. Typically, full planning permission required.
Secondary glazing	No	Typically, deemed to be permitted development.
Air source heat pumps	Yes	Typically, planning permission is required.
Solar PV	Yes	Typically, planning permission required. Solar PV system less than 50 kWp in size are less likely to require planning permission.

For planning advice, please contact your local council's planning department.

Solar PV Installation – Listed building & Camden Climate Fund case study

Doughty Street Chambers, a participant on the BCC 22–23 installed **96 solar panels** in November 2023 across their 4 premises, no. 10, 11, 53 and 54 Doughty Street.

10 & Doughty Street are Grade II listed buildings and therefore required planning permission and a heritage site assessment.

The project received planning permission and also awarded £10,000 from the Camden Climate Fund to support with the installation.

The system is expected to:

- Generate approx. **35,000 kWh per year**
- **Save 3.5 of carbon (tCO₂e)** per year
- Generate savings of **£27,479** over three years



Procure renewable energy



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Energy trends

Global drivers of the energy price fluctuations:

Global prices for energy started to increase in 2021. Reasons for this included:

- Covid-recovery
- Depleted gas stockpiles in Europe
- Supply disruption
- Ukraine war
- Increased global energy demand

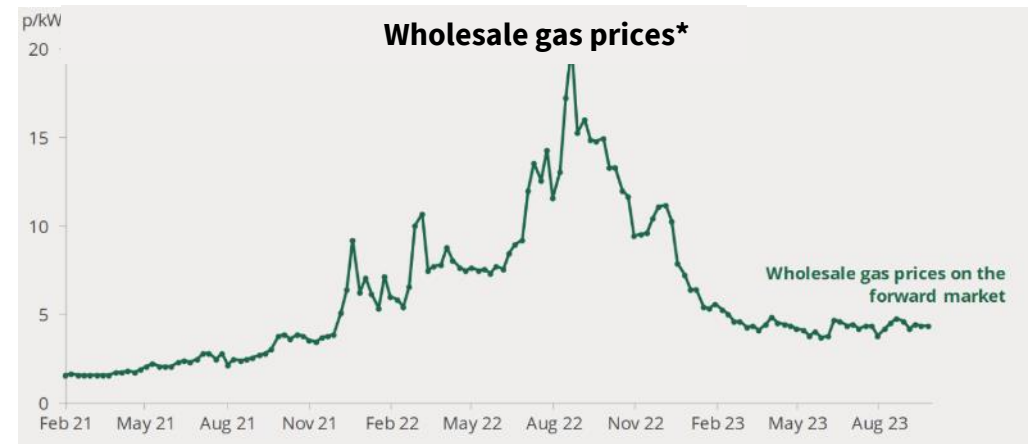
The UK government launched the energy price guarantee in October 2022 to cap energy prices.

Whilst energy prices have continued to fall since this time, prices remain 39% higher than there were in Winter 2021/22.

Prices are expected to fall by 7% in Q3 2024 and are then expected to rise by 12% in Q4 2024, remaining at this level in early 2025.

Energy efficiency and retrofit trends

- Cost of energy efficiency measures and renewables reducing
- More finance for energy efficiency projects
- More innovation, creating new products
- Quicker pay back
- But still skills shortages, immature supply chain, materials shortages



*Gas and electricity prices during the 'energy crisis' and beyond <https://commonslibrary.parliament.uk/research-briefings/cbp-9714/>.

Energy procurement

Review the type of contract you procure

Rather than securing your energy costs through a Fixed Rate contract, which allows little flexibility, Flexible or Variable Rate contracts may allow you to take advantage of lower energy prices depending on the time of day in which you use your energy.

Collective purchasing

This is when organisations group together to purchase their energy. By combining purchasing power, it is possible to achieve lower prices, as suppliers compete for the overall business of collective energy consumption.

Green tariffs

Energy is still supplied by the grid, but the amount used is produced by renewable and/or fossil free sources.

- What does your supplier count as green/renewable?
- Can your supplier prove the energy is from renewable sources?
- Do they have a Renewable Energy Guarantee of Origin (REGO) certificate?

Renewable energy procurement

To ensure you are choosing the right green energy tariff for your business there are 3 things you can check:

- 1. Is your supplier buying a Renewable Energy Guarantee of Origin (REGO) certificate with their supply of renewable energy?** This will be presented to you as a customer to prove the percentage of renewable energy with your green tariff supply. However, the REGO can be bought separately without proof of renewable energy bought by the supplier, so check the originality of it.
- 2. What percentage of your green tariff is renewable energy?** Your tariff will use a mixture of renewable energy and energy generated from fossil fuels. By checking that the supplier's business strategy includes increasing renewable energy generation, you can ensure the supplier is using your green energy tariff to provide support for renewable energy generation over REGO.
- 3. Does your supplier state the source of their renewable energy?** Transparency of energy generation site is a good sign that the business is providing a reliable green tariff for your business and support the UK renewable energy industry. The current greenest tariffs available are Good Energy, Ecotricity, and Octopus.



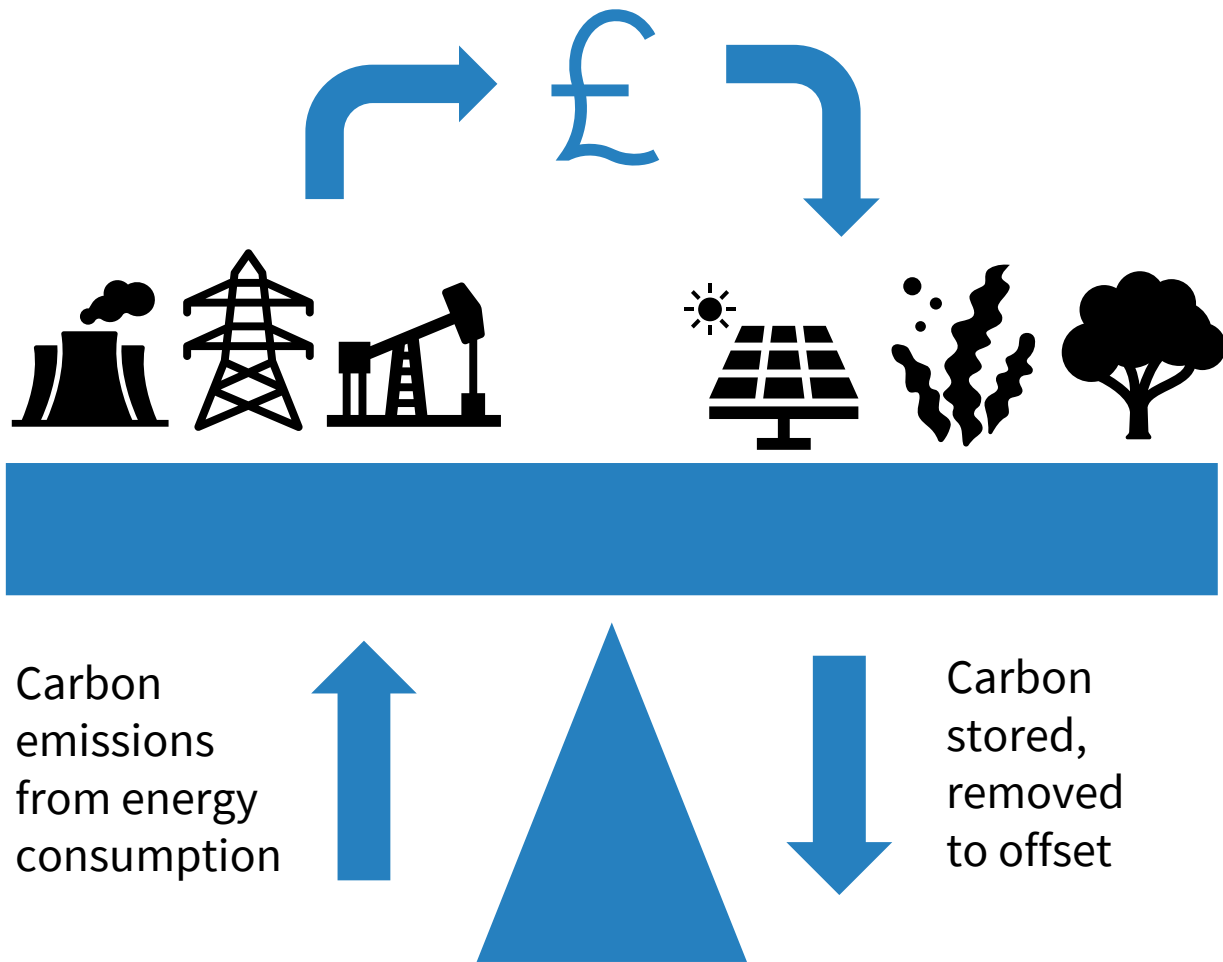
Offset remaining emissions



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Offset remaining emissions

A carbon offset broadly refers to a reduction in GHG emissions – or an increase in carbon storage (e.g., through land restoration or the planting of trees) – that is used to compensate for emissions that occur elsewhere.



Reforestation



Coral and phytoplankton restoration



Wetland conservation and restoration



Camden Retrofit Credits

London Borough of Camden has developed a pioneering local carbon offsetting approach for businesses called the **Camden Retrofit Credits Scheme**.

- The scheme provides businesses with the opportunity to purchase carbon credits that are linked to Social Housing retrofits in Camden, to offset their residual emissions.
- The scheme calculates the carbon emission savings and social value savings that will be achieved through the purchase of the carbon credits.
- The scheme is being run in partnership with the Housing Association Charitable Trust.
- The scheme aims to address many of the concerns that exist with global offsetting schemes on quality, locality and integrity of carbon offsets.
- Further details about the Camden Retrofit Credits scheme can be found on the Camden Climate Alliance website.

Read more here about the scheme: [Camden Retrofit Credits - Camden Climate Alliance](#)

Camden Climate Alliance

ABOUT US GET INVOLVED OUR IMPACT CONTACT   

GET INVOLVED

CAMDEN RETROFIT CREDITS

The Camden Retrofit Credit Scheme is a pioneering approach to carbon offsetting. The carbon credit scheme provides a framework for businesses to offset emissions locally by investing in Social Housing Retrofit in Camden.



About the scheme

DETAILS



How does the scheme work?

DETAILS



How can I purchase credits?

DETAILS



Saving energy and money for businesses

Grants and resources

Camden Climate Fund



Access to funding to support your net zero journey

Funding is available to support organisations to implement key recommendations that improve the efficiency of their workplace and achieve cost and carbon savings.

Camden Climate Fund

Businesses based in Camden who are participating through the [Camden Climate Alliance](#) or [The Fitzrovia Partnership](#) can apply for a **business grant** from the Camden Climate Fund for up to **£10,000 match-funding** to install renewable technologies and/or energy efficiency measures.

Measures include solar PV, thermal performance e.g. insulation, light and lower carbon heating upgrades e.g. LEDs, heat pumps.

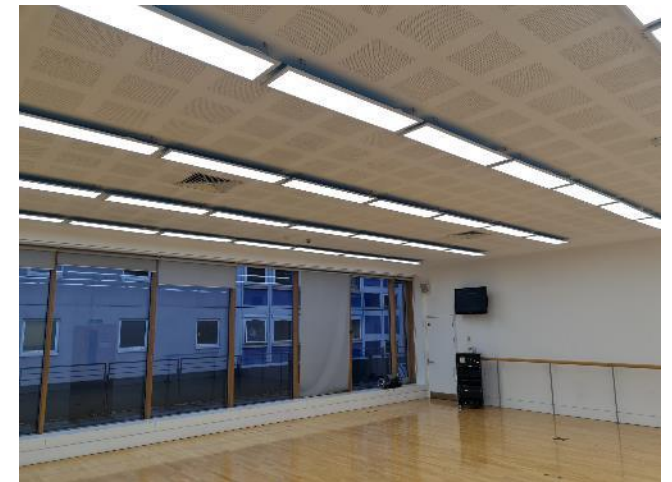
To be considered for funding your business must be:

- A small-to-medium enterprise (SME) including third-sector organisations and sole traders
- Have premises where the work will be conducted located within the borough of Camden
- Be a member of the Camden Climate Alliance
- Deadline: applications are reviewed and accepted on a rolling basis.

Find out more about the grant and read the [Terms and Conditions](#) here: [Camden climate fund - Camden Council](#)

Apply here: [Camden Climate Fund: Business Grant - We Are Camden - Citizen Space](#)

For any questions or to discuss your application contact: camdenclimatefund@camden.gov.uk



*The grant supported us to install more than £20k of LED lighting upgrades helping us to save energy, futureproof fixtures and deliver on our ambition to be a net carbon zero building by 2030. **The Place, BCC Participant 2022-23.***

Brent for Business Energy Saving Scheme



Access to funding to support your net zero journey

Funding is available to support organisations to implement key recommendations that improve the efficiency of their workplace and achieve cost and carbon savings.

Brent for Business Energy Saving Scheme

Businesses based in Brent who are participating through the programme can apply for a **business grant** of up to **60% of the eligible costs or £18,000, whichever is lower, to install renewable technologies and/or energy efficiency measures, with the remaining 40% of match-funding coming from the business or landlord.**

Measures could include solar PV, thermal performance e.g. insulation, light and lower carbon heating upgrades e.g. LEDs, heat pumps.

The grant provides a capital subsidy to help businesses implement energy efficiency initiatives. The maximum level of the grant is £18,000 which would require a total project value of at least £30,000.

To be considered for funding your business must be:

- A small-to-medium enterprise (SME) including third-sector organisations and sole traders
- Have premises where the work will be conducted located within the borough of Brent

Deadline: applications are reviewed and accepted on a rolling basis.

Please act quickly as this funding is time limited.

For further information on funding applications please email: business@brent.gov.uk



Free available resources



- **Camden Climate Fund:** Grant funding for local community energy projects: <https://www.camdenclimatealliance.org.uk/get-involved/camden-climate-fund/>
- **Brent Business Climate Charter:** <https://www.brent.gov.uk/business/business-advice-and-support/brent-business-climate-charter#climatecharter>
- **Carbon Footprint Calculator | Compare Your Footprint:** <https://compareyourfootprint.com/difference-scope-1-2-3-emissions/>
- **Greenhouse gas conversion factors for company reporting:** <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>
- Other ways to get involved: <https://www.camdenclimatealliance.org.uk/get-involved/climate-connectors/>
- **Guides and webinars:**
 - BCC IO-Gen resources: <https://bcc.io-gen.com/Basic/Documents/Index/309021>
 - The Carbon Trust Guides: <https://www.carbontrust.com/our-work-and-impact/guides-reports-and-tools>



Camden
Climate Alliance



2023 Government
Greenhouse Gas
Conversion Factors for
Company Reporting

Methodology Paper for Conversion Factors
Final Report

June 2023

Heat Pumps

Introduction
Heat pumps are an established technology that are being increasingly adopted across the UK as a viable alternative to current carbon intensive heating methods. They can represent a smart long-term investment for businesses.

What is a heat pump?
A heat pump is a device that can heat a building by transferring thermal energy from the outside (typically air, ground, or water) using a refrigerant cycle. Many heat pumps can also operate in the opposite direction, cooling the building by removing heat from the occupied space and rejecting it outside.
A heat pump uses electricity to run the compressor and circulating pumps - to transfer the energy from the heat source into the heating system. The heat energy produced by the heat pump is greater than the energy needed to power it, (typically for each kWh of electricity consumed, 2.5 kWh heat is supplied).
Learn more about how different types of heat pumps work here.

How do heat pumps reduce carbon emissions?
Heat pumps are powered by electricity, unlike a boiler which runs on fossil fuels (e.g. natural gas or oil). Although grid electricity has a slightly higher carbon intensity than fossil fuels currently, due to the efficiency of the heat pump, carbon emissions will be lower. Furthermore, the electricity grid is continually decarbonising as more renewables and low carbon generators are added to the UK electricity mix. When a heat pump is combined with electricity generated by renewables, it becomes a carbon-free source of heat.

MAJOR OF LONDON
MAYOR'S BUSINESS CLIMATE CHALLENGE

What is a heat pump?
A Heat Pump Guide

WSP

SUPPORTED BY
MAYOR OF LONDON

TILNEY & TOWNSEND

The journey to Net Zero for SMEs

11 FEBRUARY 2024

CARBON TRUST

An SME guide to financing energy efficiency projects

Enabling SMEs to invest in energy efficiency

enter

Summary

- **Energy Management** is the process of monitoring, controlling and conserving energy in a building or organisation and provides a process for **reducing energy costs** and **carbon emissions**.
- There are **6 steps to achieving net zero buildings** with **Energy Management**, this includes:
 - Baselineing, reporting and disclosure
 - Improving operational efficiency
 - Transitioning to low carbon heating
 - Generating clean energy on site
 - Procuring renewable electricity
 - Offsetting remaining emissions
- When undertaking energy improvement projects within a listed building or conservation area, **contact your local council's planning department for advice**.
- **Apply to the Camden and Brent Business Climate Challenge** to receive an energy audit and recommendation report to identify how your business can reduce its energy costs and cut carbon emissions.



Saving energy and money for businesses

Questions

Refreshment break

slido

Please download and install the Slido app on all computers you use

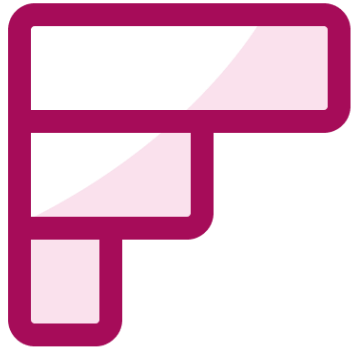


Is your business planning to implement any energy efficiency measures?

① Start presenting to display the poll results on this slide.

slido

Please download and install the Slido app on all computers you use



I feel more confident in my understanding of what my business can do

① Start presenting to display the poll results on this slide.

IO-GEN Energy Management platform



Saving energy and money for businesses

Why does energy efficiency matter?

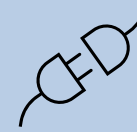


“Unprecedented cost inflation in the utilities market.”

Net zero by

2030

Mayor of London target



“In industries – like retail, utilities are in the top 5 overhead costs. Usually just after staffing and waste.”

Inflation

9.2%

CPI 12-month rate
(December 2022)



“The growing pressure to hit targets in reducing carbon footprint and sustainability.”

Top

?%

In your business type where does it sit currently?

How does the IO-Gen Energy Management platform work?

Data is collected from



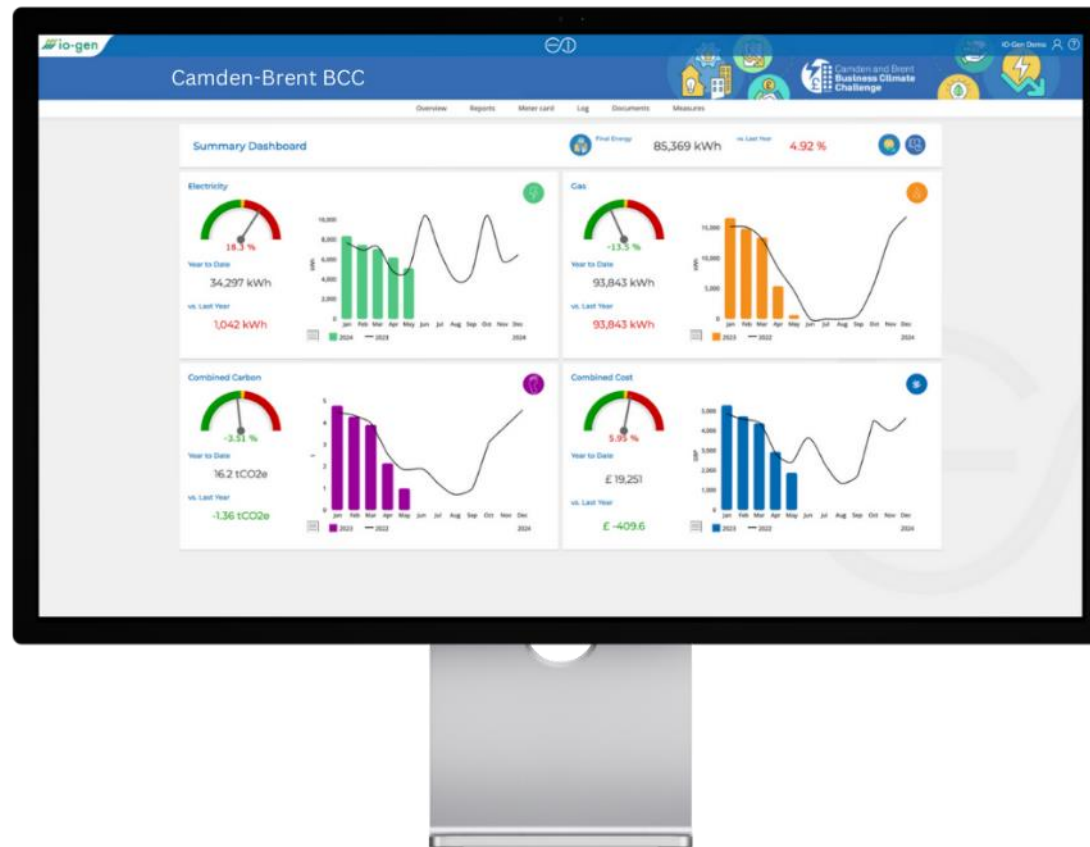
Meter readings



Bills / invoices



Energy suppliers



BCC 2023 on IO-Gen

IO-Gen allows us to easily see the direct results of implementing energy efficiency initiatives or installing energy saving equipment. The platform is easy to use thus making it easier to hit your sustainability targets. You can easily compare to where you were year ago to ensure you are improving year on year. You are even able to document and log the energy saving measures you take and the dates of these within the platform.

**London BioScience Innovation Centre,
Camden Climate Alliance BCC 2023
Participant**

We found the IO-Gen platform helpful when visualising our electricity usage. We had a lot of issues during the BCC period getting our smart meter installed with our provider, so having a platform that allowed us to input our meter readings and give us stats and graphs was useful when tracking the effects of the changes we were implementing to reduce our usage. Once we did get our smart meter sorted, IO-Gen became even easier to use. As well as showing us the efficacy of our policies, the graphs are great for wider internal communications and staff engagement, as it is a simple way to show the successes of their efforts too.

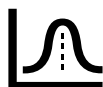
**Goodman Jones, The Fitzrovia Partnership
BCC 2023 Participant**

Using the IO-Gen platform and key learnings



Dashboards and Reports

(understanding the dashboards)



Baseline

(how to set a baseline and baseload)



The CBBCC

(updating data and tracking)



Measures

(tracking the BCC recommendations)



Team Engagement

(engage colleagues by sharing progress)



Site Diary

(notes and documents)



Monthly notifications

(notifications for monthly meter reads)



Web-app

(for meter reads with offline access)

Live demonstration

Questions

Summary

- **Energy Management** is the process of monitoring, controlling, and conserving energy in a building or organisation and provides a process for **reducing energy costs** and **carbon emissions**
- There are **6 steps to achieving net zero buildings** with **Energy Management**, this includes:
 - Baseline, reporting and disclosure
 - Improving operational efficiency
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 - Generating clean energy on site
 - Procuring renewable electricity
 - Offsetting remaining emissions
- **Apply to the Camden and Brent Business Climate Challenge** to receive an energy audit and recommendation report to identify how your business can reduce its energy costs and cut carbon emissions.
- **IO-Gen Energy Management platform** is the reporting tool for the **Camden and Brent Business Climate Challenge** and enables businesses to baseline their energy consumption and monitor energy savings from energy saving projects.



Saving energy and money for businesses

Thank you

Key Contacts

Key Contacts	Troubleshooting (not exhaustive)	Email
Technical Delivery Unit	Queries relating to accessing your energy data, asbestos register, audit, recommendation report	businessclimate@turntown.com <i>Or if you've received your recommendation report, contact your auditor directly</i>
IO-Gen Energy Management Dashboard	Access/understanding your dashboard, how to upload data and measures, changes to your energy supplier	Jed Palma: info@io-gen.com
Camden	Completing your application, general queries, trainings, programme feedback	Abi Roberts: Abigail.Roberts@camden.gov.uk Susanna Sparrow: Susanna.Sparrow@camden.gov.uk
Brent	Completing your application, general queries, trainings, programme feedback	Jide Ogunro: Jide.Ogunro@brent.gov.uk Danica Sharan: Danica.Sharan@brent.gov.uk
The Fitzrovia Partnership	Completing your application, general queries, trainings, programme feedback	Stella Pyke: Stella.Pyke@fitzroviapartnership.com