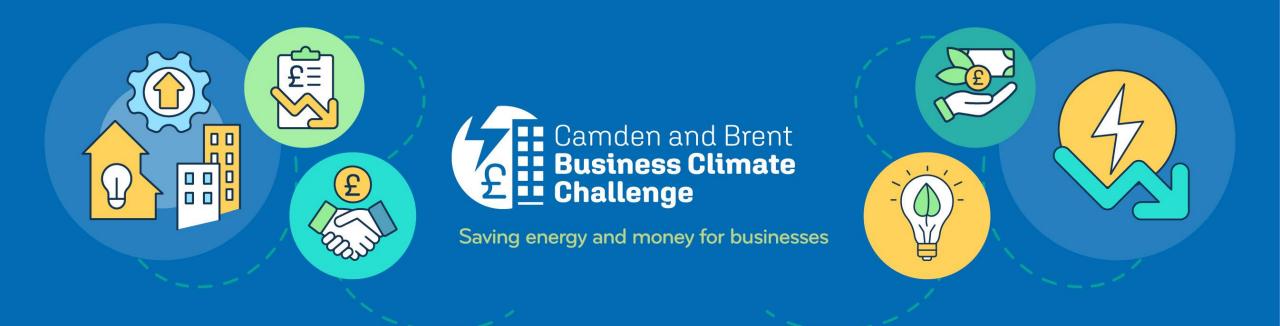




Camden Climate Alliance







SUPPORTED BY

MAYOR OF LONDON

Agenda

Part 1 – Introduction

- Meet the presenters
- Purpose of this training session
- Polls
- Introduction to BCC

Part 2 - LED Lighting

- Types of lighting
- Ways to control lighting
- Considerations for lighting replacement
- Case Study Studio 274

Part 3 – Heat Pumps

- What is a heat pump?
- Types of heat pump
- Heat pump controls
- Considerations for heat pumps
- Case Study heat pumps in 6 storey building

Part 4 – BMS and controls

- Overview of BMS Controls
- How does a BMS help me?
- How can I utilise BMS to save energy?
- Case Study Reed House

Part 5 – Building Fabric Improvements

- Fabric first
- Roof and ceiling insulation
- Cavity wall insulation
- Internal and external wall insulation
- Finding a competent contractor

Part 6 - Funding

- Camden Climate Fund
- Brent for Business Energy Saving Scheme

Summary, Q&A and Close



Meet the presenters

Camden Climate Alliance



Abi Roberts Climate Alliance Lead





Qasim Akhtar Senior Consultant



Ryan Smith Principal Consultant



Imogen Stewart-Green Junior Consultant



Icebreaker question

What brings your business to today's training?









Icebreaker question

If your business is planning to implement energy saving measures, when do you expect to start implementing one or more of them?









Purpose of this session





Understand how LED lights, lighting controls, building management systems, heat pumps and building fabric improvements can save energy.



Understand how to plan energy saving improvements to your building.



Understand how to deliver an energy saving project in your building.



Understand funding that is available and how to apply.

Introduction



Saving energy and money for businesses





Reduce your energy consumption by 10%

BCC Pilot 2020-21:

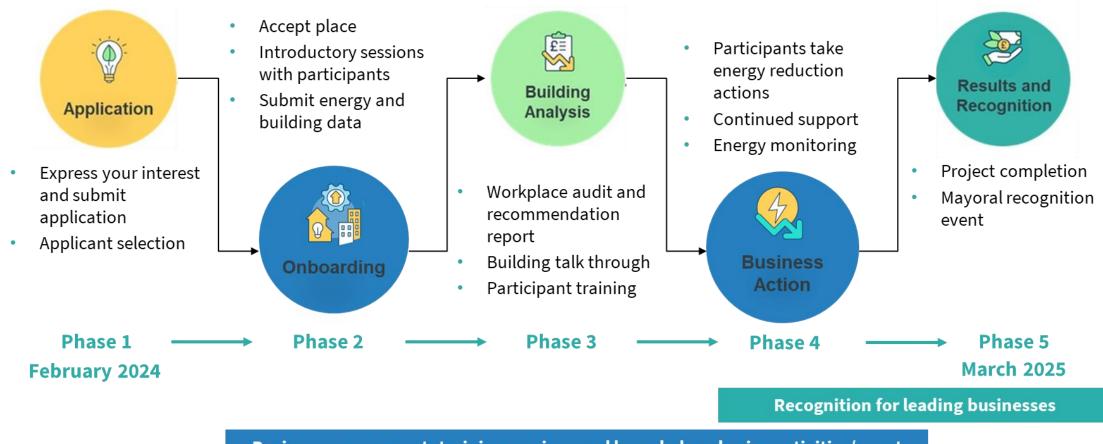
Participants reduced energy consumption by **16%** on average in 9 months, saving **£8,300** in energy costs.

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%**.

Business Climate Challenge Journey





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

Business Climate Challenge Journey



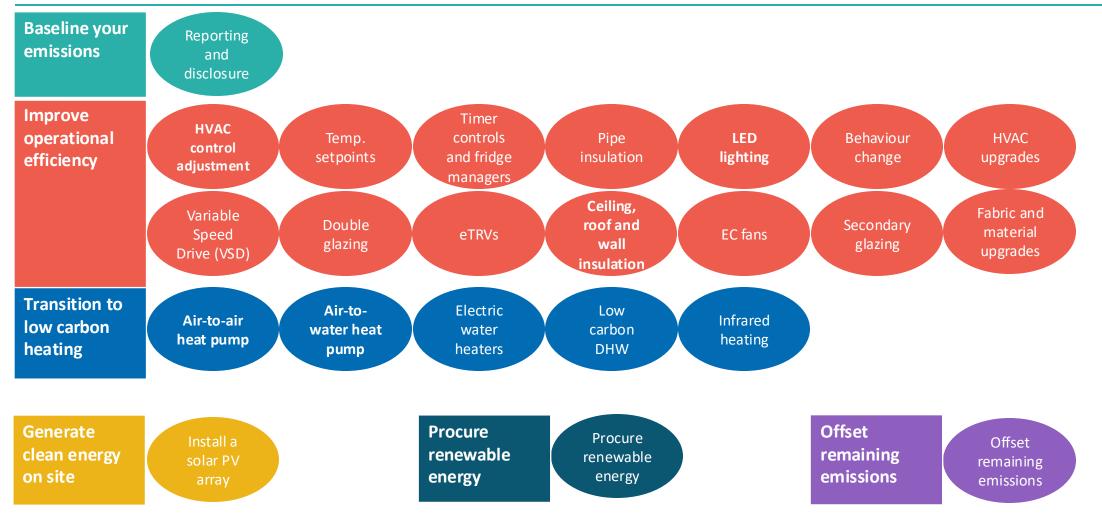
Energy audit recommendation report



Business Climate Challenge Journey



Measures and recommendations



Example



Replace fluorescent lighting with LED lighting

| Six steps to building decarbonisation | Recommendation | Cost | Estimated savings | | | Lifetime carbon savings | Payback period | |
|--|---|----------------------------------|----------------------------------|--------------------------|---------|-------------------------|-----------------------------------|---------|
| | | £ | kWh/year | % of total | £/year | tCO₂e in year 1 | tCO_2e (over measured lifetime) | Years |
| 1. Baseline your emissions | Request your supplier fits automatic half hourly meters to enable real-time monitoring of energy use. | Likely covered by provider | - | - | - | - | - | - |
| 2. Improve operational efficiency | 1. Encourage staff to turn off lighting and IT equipment when not in use. | Free | 438 | 1% | £140 | 0.04 | 0.5 | Instant |
| | 2. Install LED Lighting | £1,300 | 1,060 | 4.9% | £370 | 0.2 | 1.4 | 3.5 |
| | 3. Install secondary glazing where single glazed windows are used. | £18,200 | 4,165 | 3% | £260 | 0.8 | 11.4 | >25 |
| | 4. Develop policy to ensure sustainability is considered in all procurement | - | - | - | - | - | - | - |
| 3. Transition to low carbon heating | Install a low carbon air source heat pump heating system and electric instant hot water heaters. | £52,000 | Elec: -44,899 Gas: 155,593 | Elec: -137% Gas: 100% | -£4,900 | 19.6 | 372 | None |
| 4. Generate clean energy on site | Install a solar PV array (not considered feasible). | £7,500 | 1,504 | 5% | £490 | 0.3 | 1.9 | 15.3 |
| 5. Procure renewable electricity | Procure renewable electricity. | Not estimated | - | - | - | - | - | - |
| 6. Offset remaining emissions | Purchase offsets to 'neutralise' your remaining emissions. | Not estimated | - | - | - | - | - | - |
| Total | | £79,000 | 117,860 | 62% | -£3,640 | 20.7 | 386 | |

Example

Replace fluorescent lighting with LED lighting

Details

- Lighting has been estimated to account for around 11% of electricity use at the site, costing ~£850 /year and causing the emission of ~0.5 tCO2e per year.
- The existing lighting system is made up of a mixture recently installed LED lighting and 13x legacy fluorescent lights, that are to be replaced at the end of their lifecycle. Whilst these were once considered the most efficient technology available, they have been proceeded by more efficient LED lighting technology that can offer superior illumination and energy performance.
- The existing hanging 13x T5 lighting can be directly replaced by LED panel lighting, which is already underway. Specific LEDs of choice and their related energy consumption and costs have been incorporated into the savings calculations.
- Consideration should be given to incorporating presence sensors, similar to those found in the toilet and shower rooms to the setup to ascertain the level of lighting that is required, particularly if staff are not spending prolonged periods in the basement.







LED Lighting



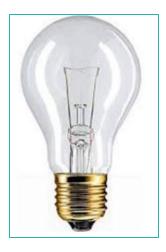
Saving energy and money for businesses

Types of lighting

Different bulb types

There are four main types of lighting

- Incandescent
- Compact fluorescent (CFL)
- Halogen
- Light emitting diode (LED)









Incandescent

CFL

Halogen





Ways to control lighting

Dimmers

- As well as traditional light switches, there are other methods of lighting control.
- Dimmers allow control to provide variable indoor lighting and can be operated manually, with timers, or with sensors.
- Dimming lightbulbs reduces their wattage and output which helps save energy.
- These are generally inexpensive and can increase the service life of certain kinds of lightbulbs.
- However, with incandescent lighting, dimming reduces lumen output, or brightness, more than wattage, which makes incandescent bulbs less efficient as they are dimmed.
- Many LEDs can be used with dimmers, but they must be designed for dimming, this information will be found on the packaging of the light bulbs.





Ways to control lighting

Passive infrared sensors

- Passive Infrared Sensors (PIR) are devices that detect variations in infrared radiation in the coverage area, so they are useful in detecting the presence of people through heat emitted.
- They are used in automatic lighting systems to turn on a light when the movement or presence of a person is detected – very useful to save energy as they only switch on lights when needed.
- Key considerations when installing PIRs:
 - It is imperative to install in an area where there are no barriers or obstacles, which will allow it to operate correctly.
 - Carefully calibrate the angle at which the sensor is installed to achieve maximum coverage.
 - Properly determine the distance between the PIR motion sensor and the area to be protected.
 - For interior installations, take advantage of the ceilings to place the PIR motion sensor in a strategic area that covers a larger surveillance area.
 - Use the device drivers to adjust the number of pulses, (time interval that the sensor emits a detection pulse), and the appropriate detection distance.





LUX

A unit of illuminance per unit area



- When switching your lighting from what you currently have to LEDs, a knowledgeable supplier and contractor should be used.
- They will understand the specific lighting needs for your company in terms of brightness or lux levels. They will also understand the specific lighting needed in different contexts (e.g. for a technician or in a warehouse).
- They will understand the colour temperature to create ambiance (e.g. in retail or hospitality spaces) or view true colours (e.g. in a car spray shop or at a hairdresser).
- They will be able to replicate lighting effects (e.g. in cultural venues and theatres).









- The payback period for installing LED lighting tends to be between 2-3 years, this also includes projects without capital grant.
- The sale of Halogen lights was **banned** in the UK from September 2021.
- T8 and T5 CFL lightbulbs **will no longer be available** in the UK after 2024.
 - This is the lighting most **commonly used in commercial spaces**.





Considerations for lighting replacement



- LED lighting has several benefits over traditional halogen lighting. It requires less maintenance, provides better and more even lighting, and requires less energy.
- The upfront costs for LED lighting can be quite burdensome and for this reason, you should consider retrofitting your current lighting fixtures, rather than changing them completely. This is where much of the cost for LEDs comes form. The ability to mount directly to existing mounting hoods and wiring systems can save labor costs.
- If this isn't feasible, retrofit adapters might be an option. Retrofit adapters allow fixtures to mate with a variety of mounting hoods so you can consolidate with a single luminaire.
- Consider the life span of your current lights. Have they recently been changed? Do they still have a long-expected life span?
- When replacing lighting, you need to consider when your building was constructed or refurbished. If it was between 1950-1980, you need to consider whether asbestos may be present in the ceiling and around the light fixtures.
- If you are unaware of the presence of asbestos in your building, inspect the building and conduct a management survey.
 This will result in an 'Asbestos Register' which dictates where the asbestos is and where it might be.
- Finally, **emergency lighting** needs to be taken into consideration as this is a **legal requirement** in most buildings.
 - Emergency lighting should be incorporated with the existing lighting system in a normal/main lighting failure scenario for the safety of the working employees.
 - When looking to upgrade your lighting to LED, ensure that emergency lighting is considered and designed as part of the upgrade solution.

LED lighting upgrade

Case



Studio 274 - Hairdresser implements LED lighting upgrade

- **The Challenge:** Reduce energy consumption from lighting, whilst achieving better lighting coverage and colour temperature than before.
- **How:** Studio 274 worked lighting designers and manufacturers to develop to the best solution. 40no fluorescent 52-watt fittings replaced with 35-watt LED panels. Grant, covering 60% of the costs, secured from London Borough of Brent's Business Energy Efficiency Scheme.
- **Result:** Staff working in the store as well as customers made positive comments about the change. Study

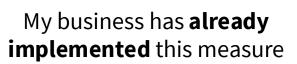


| Project | Project cost (£) | Grant from London Borough of Brent | Predicted Annual Saving (£ p.a.) | Payback without grant | Payback with grant |
|------------------------------|------------------|---------------------------------------|-------------------------------------|--------------------------|-----------------------|
| LED upgrade at Studio 274 | £5,465 | £3,279 | £1,815 | 3.0 | 1.2 |

Business reflection

We would like you to <u>use the react function</u> to let us know if you plan to implement this measure in the future.





Yes, my business is planning to implement this measure

Interesting but **not relevant for my business**



Heat Pumps

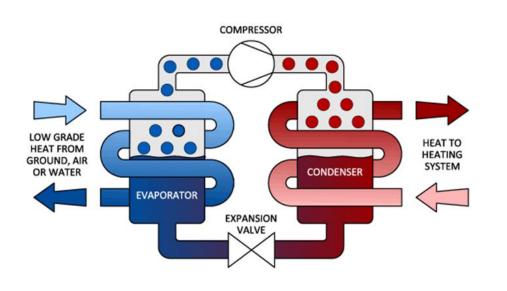


Saving energy and money for businesses

What is a heat pump?



Heat pumps provide heating and cooling using electricity as an energy source, and a refrigerant as a heat exchange medium.



The heat pump cycle works as follows:

- 1. Heat is absorbed via a heat exchanger (evaporator).
- 2. The heat causes the refrigerant (liquid) to evaporate, and changes to a gaseous state.
- 3. The refrigerant, (gas), passes through the compressor, leading to a pressure and temperature increase.
- 4. The refrigerant, (gas), passes through the condenser, which acts as a heat exchanger, and the heat is transferred to the outside medium, while the refrigerant, (gas), returns to liquid state.
- 5. The expansion valve reduces the refrigerant pressure and cools it down to repeat the cycle.

When used for heating, the heat pump **absorbs heat from the outside**, (through the evaporator), and **releases it inside** (through the condenser); when used for cooling, the opposite occurs.

Types of heat pumps



The main types of heat pumps are air-source (ASHP), water-source (WSHP) and ground-source (GSHP) heat pumps:

- ASHP: uses air as a heat medium and has a COP of 2.7 3.5; less space required and less intrusive to install.
- WSHP: uses water as a heat medium and has a COP of 3.0 4.5; more consistent performance year-round; WSHPs require a large body or water (lake or river nearby) or a borehole and are more expensive to install.
- GSHP: uses the ground as a heat medium and has a COP of 2.5 4.0; more consistent year-round; GSHPs require more space than ASHPs (approximately 700m² for a horizontal system and 100m of depth for a vertical system with a borehole) and are more expensive to install.

Additionally, consideration should be given to the refrigerant used in the heat pump; these have a **global warming potential** (GWP) which indicates the impact of the release of the refrigerant on global warming it terms of carbon dioxide equivalent over 100 years.

R290 (GWP 3), R1234ze (GWP 7) and R744 (or CO₂, GWP 1) are ultra-low GWP options.







Air-to-air heat pumps

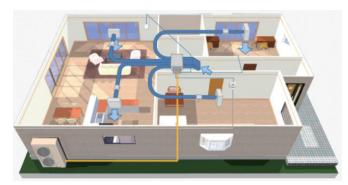


In **air-to-air heat pumps**, heat is transferred via a ducted system (heated air which passes through a network of ducts) or via a ductless system (refrigerant passes through pipes)

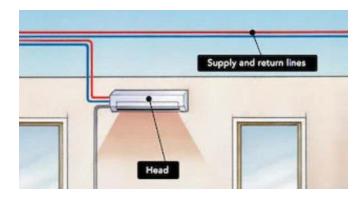
- Ducted systems allow for easier control from one central unit and are less visually intrusive (ducts are hidden behind the vents); however, installation can be costly if there are no ducts already. Ducts would require frequent cleaning to avoid accumulation of dust and other particles, and there can be losses through leaks in the ducts.
- Ductless systems are easier and cheaper to install, as their installation is less intrusive. The location of the units can be more flexible depending on the space available; additionally, these systems allow for more zoned control, but they are more visually intrusive

Air-to-air heat pumps can only be used for space heating and cooling.

A separate system would be required for hot water generation. Typically, **point-of-use water heaters** and **electric showers** if hot water demand is low or if space is limited; a **hot water cylinder** with an electric immersion heater if hot water demand is high.



Ducted system



Ductless system

Air-to-water heat pumps



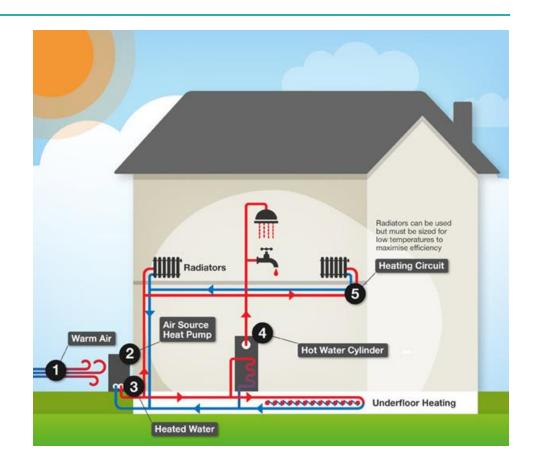
In air-to-water heat pumps, heat is transferred to a wet central heating system (via radiators or underfloor heating).

Air-to-water heat pumps can also be used for domestic hot water.

When the heat pump is used for cooling, the heat generated as a byproduct can be used for hot water generation.

Air to Water heat pumps can be used with a range of heat emitters/terminal units:

- Underfloor heating: Ideal for heat pump systems as its operating temperatures maximise the system's efficiency. Disruptive to retrofit.
- Radiators: Depending on their size they may need to be upgraded to larger sizes; less efficient but less disruptive.
- Fan Coil Units: Typical in larger offices, they operate a medium temperatures (40-60°C); similar to radiators.



Heat pump controls



Heat pumps typically benefit from **long operation periods** as opposed to a more intermittent operation; however, most heat pumps are now **variable speed** so their operation is more flexible.

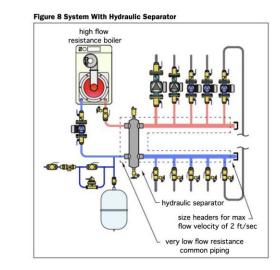
Heat pumps are connected to room thermostatic controls, which regulate:

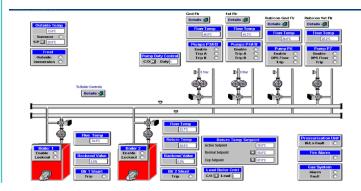
- Ambient temperature
- Schedules

Heat pump controls typically monitor and operate:

- Pump operation
- Flow/return temperature
- Fan operation (air-to-air and air-to-water)
- Defrost mode
- Buffer vessel/thermal store temperatures

Heat pumps in large building are typically connected to BMS systems.





Considerations for heat pumps



- Replacement of an existing boiler is typically considered when it reaches its end-of-life (generally after 15-20 years), or if the boiler is faulty or requires extensive maintenance.
- As air-source heat pumps supply lower temperatures than gas boilers can achieve, the existing infrastructure may not be capable of providing enough heat with the lower operating temperatures:
 - Radiators may need to be replaced with low-temperature radiators, which typically require more space.
 - As underfloor heating is designed to operate at lower temperatures (as it provides heat through a larger surface area), no replacement should be required.
 - Fan coils operate at a range of temperatures, its replacement may not be necessary, or may be avoided by replacing other system components (pipework/heat exchangers).
- When **choosing a heat pump**, the following should be considered:
 - Space available and surroundings (to determine whether an ASHP, a WSHP, or a GSHP is more suitable).
 - Existing space heating infrastructure (ducting, radiators, UFH, FCUs).
 - Hot water generation.
- Consideration should be given to any potential planning constraints, where we would recommend reaching out to your local planning authority for advice
- Careful consideration of **heat demand** is key, as sizing of heat pump system is crucial for efficient operation.

Heat pump

Organisation that upgraded to heat pumps



The Challenge: Upgrading a 6-storey office building from gas boilers to heat pumps and electric hot water.

How: VRF units installed on rooftop (one per floor) and 2x electric calorifiers on basement for hot water, combined with electric point of use heaters.

Result:

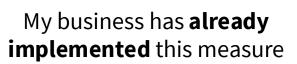
- Complete removal of gas usage from the building.
- Retaining existing heating system (FCUs) in offices.
- Very congested rooftop, slightly suboptimal system pipework and ductwork configuration.
- Disruption in tenant floors done at lease breaks in some cases, which minimises issue.
- Cost of electric hot water minimised by topping up at night and flexible electricity tariffs.



Business reflection

We would like you to <u>use the react function</u> to let us know if you plan to implement this measure in the future.





Yes, my business is planning to implement this measure

Interesting but **not relevant for my business**



BMS and Controls



Saving energy and money for businesses

A BMS can control energy in all types of buildings





Building Management System overview



- A Building Management System (BMS), can also be known as Building Energy Management System (BEMS).
- A BMS could just consist of a single controller located in a small control panel to form an intelligent control system.







Building Management System overview



The controllers receive information via many types of sensors, and these are called inputs:

- Temperature sensors
- Presence sensor
- Indoor air quality
- Humidity

- Carbon dioxide
- Weather
- Switches
- Energy meters / timers

The controller software is then used to control equipment these are called controller outputs:

- Enable plant ON/OFF
- Control water temps HWS, heating
- Control air temperature AHU, heat pumps
- Control AC systems AC units

- Control lighting ON/OFF, dimming
- Control natural ventilation
- Open windows

How does BMS help me?

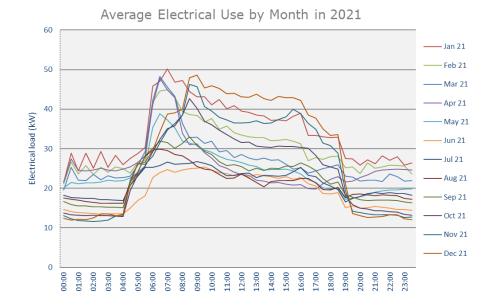


- Control of plant with minimum energy use.
- Remote access to alter and monitor plant.
- Record installation performance.
- Prove the extent to which the system functions as intended.
- Visualisation of important KPI's for the building manager.
- Assist with and monitor Preventative maintenance (PPM) tasks.

How can I best utilise BMS to save energy?



- Time controls set to **match** the building operating hours.
- Temperature controls set to sensible temperatures (E.g. heat to 19-21°C, cool to 23°C).
- All pipework and ductwork **insulated**.
- Variable speed drives fitted to AC fans, regulating speed based on CO₂ levels.
- Temperature and CO₂ sensors fitted in sensible places.



- The graph shows the average energy consumption during the day (weekdays only) each month.
- From the graph, the increase in electricity use occur approximately about the same time every day (04:00 07:00). This is probably due to the ground source heat pump (GSHP) system "ramping up" first (04:00) (this requires a steady heat up time), and the air source heat pump (ASHP) systems following at about 05:30. According to the statistics, all systems typically shut down at about 18:30.
- It should be noted that the 'on' time for the heat pumps could likely be pushed to later to reduce energy use making the building more energy efficient, as the building is generally not occupied until 06:30 at the earliest.

BMS Controls

Case

study



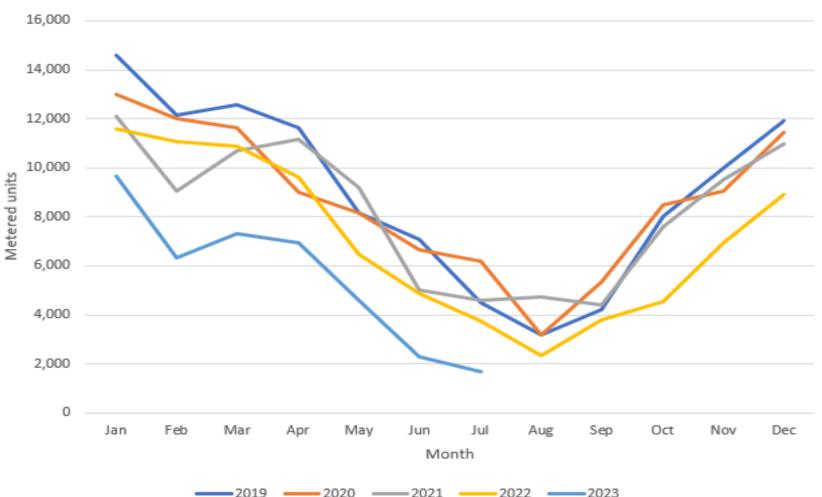
An organisation that optimised their controls

- The Challenge: In April 2021 Reed House a three-storey office complex approached us to upgrade an
 existing obsolete site wide BMS system. To achieve maximum energy saving an approach was taken to
 rewrite the control strategies for the building and install new software.
- How: All existing plant controllers were swapped out for new controllers and new demand driven software was installed across the whole site.
 - Multiple zoned PIR detectors and CO₂ monitoring sensors were installed to monitor the conditions in the offices, this allowed the main ventilation plant and 160 + fan coil units to be run at setback temperatures if areas were unoccupied while maintaining good Indoor Air quality conditions at all times.
- Result: After a year with the new system in operation the following feedback was received from the building owners -
 - Depending on the areas concerned and especially on the fully occupied 3rd floor economies of between 15 & 30% are being made which mitigates the increases in the unit costs for both gas and electricity we incurred in May this year. So much so that I can foresee a payback of the cost of the works within a 5-year period if not sooner.

BMS Controls



An organisation that optimised their controls



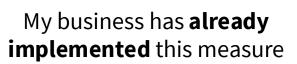
Reed House Gas Consumption

Case study

Business reflection

We would like you to <u>use the react function</u> to let us know if you plan to implement this measure in the future.





Yes, my business is planning to implement this measure

Interesting but **not relevant for my business**



Building Fabric Improvements



Fabric first

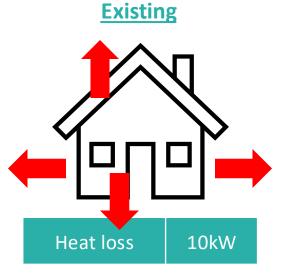


Heating requirements:

- Temperature of air will always try to equalise
- Therefore, heat needs to be pumped in to match the heat that is escaping

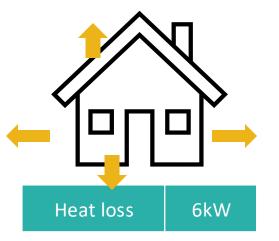
If a building had a 10kW heat loss:

• To maintain the temperature of a building over an hour, you would need to input 10kWh of heat



Energy needed to maintain building temperature: 10kWh

Insulated building



Energy needed to maintain building temperature: 6kWh

Insulation



Main optimisation opportunities:

- Ensure floors, ceilings and walls are insulated with good levels of insulation
- Drafts blocked up wherever possible
- Double glazing (or secondary glazing if listed building)





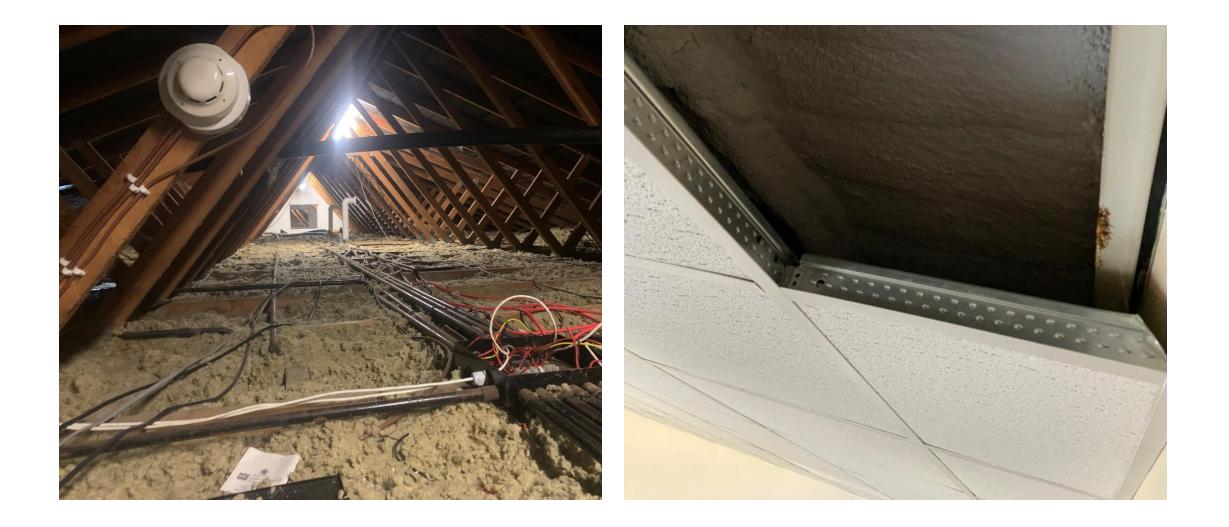
Roof Insulation





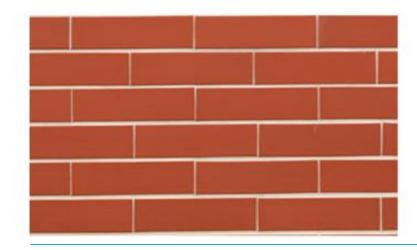
Ceiling insulation





Do my walls have cavities?



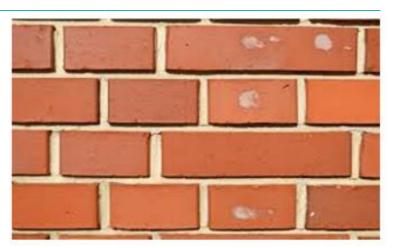


Cavity wall

If your building has cavity walls, the bricks will most likely have an even pattern, with each brick lengthways

Solid wall

If your building has solid walls, the bricks will have an uneven pattern, with some of the brick laid sideways so you can see the smaller ends.



Cavity wall insulation





Internal wall insulation





External wall insulation





IMPORTANT - Finding a Competent Contractor



- For any works you will require a contractor be it electrical, renewable energy installer, etc. it is important to obtain a **competent contractor**.
- The term competent contractor refers to an individual or entity that can demonstrate sufficient qualifications, experience and knowledge and adhere to health and safety laws/regulations when carrying out the work you request.
- In the UK, there is a difference between a competent person and a competent contractor. The UK Government's competent person schemes allows an individual or an enterprise to self-certify their work and declare it is within building regulations without getting approval from an independent body.
- Finding an Electrical Contractor: all competent contractors should be registered with an accreditation scheme, such as the National Inspection Council for Electrical Installation Contracting (NICEIC).
- Finding a Renewable Energy Installer: they will need to be certified by the Microgeneration Certification Scheme (MCS).
- Ideally, consider obtaining three quotations from suppliers and choose a suitable installer, ensuring they are a competent contractor.
- Check our guide to learn more about competent contractors. <u>https://www.io-gen.com/bcc</u>

Business reflection

We would like you to <u>use the react function</u> to let us know if you plan to implement this measure in the future







My business has **already implemented** some fabric measures Yes, my business is planning to implement fabric measures for the first time or looking to implement additional fabric measures Interesting but **not relevant for my business**







Camden Climate Fund

Access to funding to support your net zero journey

Participants of the Camden & Brent Business Climate Challenge (CBBCC) have the opportunity to apply for grant funding from the Camden Climate Fund, in order to implement some of the energy saving recommendations made to them through their energy audit report.

Camden Climate Fund

Businesses based in Camden who are participating through the <u>Camden Climate Alliance</u> or <u>The</u> <u>Fitzrovia Partnership</u> 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, lighting and lower carbon heating upgrades e.g. 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 (membership is free).

Businesses are invited to apply for **grant funding** towards recommended energy saving measures. However, it would be beneficial for any business wishing to apply for grant funding to attend a designated **talk-through** meeting with their **energy audit provider** and speak to the **Camden Climate Alliance**, in the first instance, to receive guidance on the application process.

Deadline: applications will close on Friday 15 November 2024.





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.**

Camden Climate Fund

Access to funding to support your net zero journey

Process for applying and information required:

- Contact details
- Size of company/ organisation (number of full-time employees)
- Status (e.g. sole trader, limited company)
- Annual turnover
- Property tenure (freeholder, leaseholder or tenant)
- The measure/s you would like to install
- A quote for the measure/s
- Estimated energy savings from installing the measure/s
- Estimated reduction in carbon emissions from installing the measure/s
- A statement outlining any other permissions that may need to be sought (such as Planning and listed building consent)

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

Find out more about the grant and read the Terms and Conditions here: Camden climate fund - Camden Council

The Camden Climate Fund will relaunch in January 2025.

Likely amendments include:

- Increased grant funding for businesses, potentially, match-fund still required
- £5k grants for charities, no match fund





Brent for Business Energy Saving Scheme

Access to funding to support your net zero journey

Participants of the Camden & Brent Business Climate Challenge (CBBCC) have the opportunity to apply for grant funding, from Brent Council, in order to implement some of the energy saving recommendations made to them through this energy audit report.

Brent for Business Energy Saving Scheme

The funding available from Brent Council is up to 60% of the cost of the work capped at a maximum of £18,000. The business will be required to contribute the remaining 40%.

Businesses are invited to **apply for grant funding** towards recommended energy saving measures. However, it would be **beneficial** for any business wishing to apply for grant funding to attend a designated **talk**-**through meeting with their energy audit provider** and speak to Brent Council, in the first instance, to receive guidance on the application process.

This funding opportunity aims to align business support received by CBBCC applicants with a grants programme that also supports businesses to **overcome cost barriers** to energy efficiency improvements recommended within their audit report. It should enable a reduction in carbon emissions from industrial/commercial properties and help reduce running costs for businesses.

Brent council can help provide details of relevant local contractors if any grant applicant requires this. Please note – It remains the responsibility of the grant applicant to carry out due diligence checks on contractors before agreeing to the delivery of any works.

For further information on funding applications and sourcing details of local contractors please email: business@brent.gov.uk









Summary

- There are six key steps any business can take to operate their buildings at net zero operational carbon.
- Technologies such as LED lighting, BMS controls and building fabric measures can improve the operational efficiency of buildings and can reduce energy demand.
- Heat pumps are highly efficient and can be used to replace fossil fuel heating (e.g. gas boilers) in buildings.
- Energy audit recommendation reports delivered through the Camden and Brent Business Climate Challenge, identify the measures that businesses can implement to operate their building at net zero.
- The reports can be used to inform grant funding application to Camden Climate Fund and Brent for Business Energy Saving Scheme.



Closing Poll

After attending this training, I feel more confident in my understanding of energy saving technologies and their implementation

Scan the QR Code or enter in Menti Code: 3234 5055











Close

- Please complete the training feedback form
- Sign up to future trainings
- Businesses on our programme:
 - Supply any outstanding information
 - Attend next IO-Gen dashboard demo: 02/10/24, 2-2.40pm
 - Attend your 'talk-through' meeting
 - Explore your IO-Gen dashboard
 - Sign and return new LOAs
 - Further targeted support limited spaces, complete form



Business Sustainability Series:

Upcoming Training Sessions

2024

- June 19/06: Energy Management Best Practice, 9am -12pm @ The British Library, NW1 2DB
- July 11/07: Behaviour Change & Employee Engagement, 11am 12.30pm [Online].
- Sept 25/09: Energy-saving technologies and funding, 11am - 12.30am [online]
- Nov 07/11: Accredited Carbon Literacy Training, 9 5pm @ Friend's House, 173 Euston Road NW1 2BJ.
- 2025
- Jan Date TBC: Communicating the sustainability journey [online]
 - Date TBC: Journey to B-Corp [online]



Funded by UK Government

SUPPORTED BY