



UK Green Real Estate

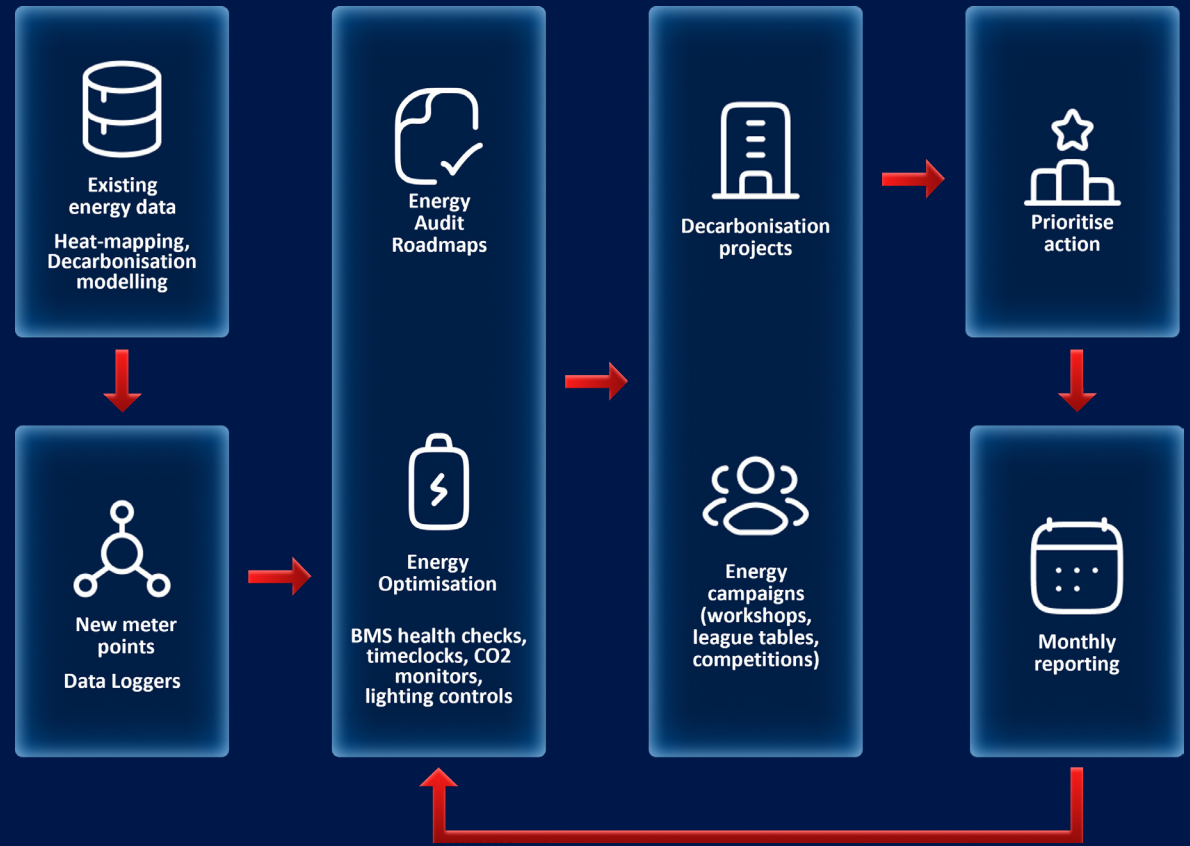
Realising Potential.

In the UK, powering buildings currently accounts for 34% of the UK's total energy usage. Decarbonisation of large commercial buildings is therefore a significant component of achieving UK's Net Zero Target by 2050.

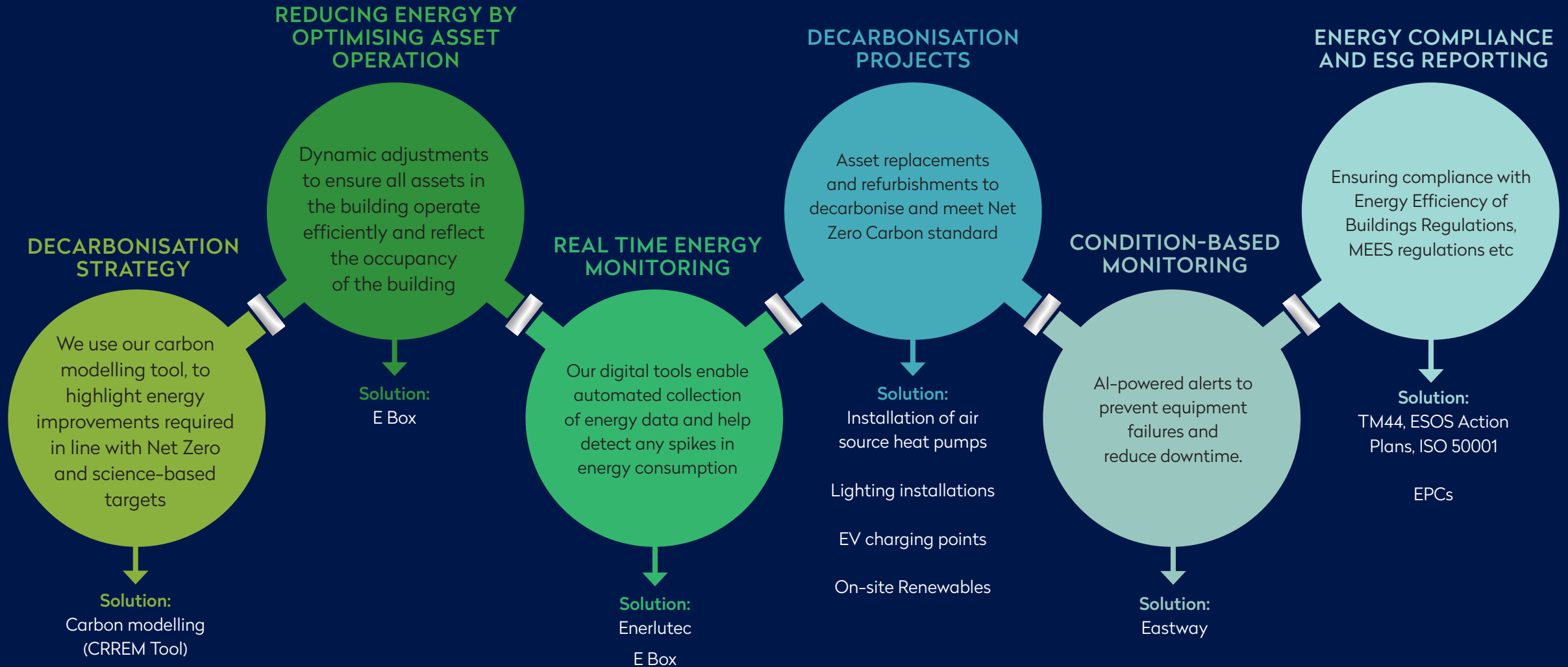
We would like to showcase how we can help:

- › Reduce your energy cost
- › Decarbonise your properties
- › Improve your building's performance
- › Ensure compliance with existing and future legislation.

Our circular approach to energy management supports continuous improvement. The process, starts with gathering energy and water consumption data, heat mapping and conducting energy audits. We put forward decarbonisation projects, launch energy campaigns and produce monthly energy report explaining any trends and recommendations.



WE CAN HELP TO REDUCE COST AND LOWER YOUR CARBON EMISSIONS

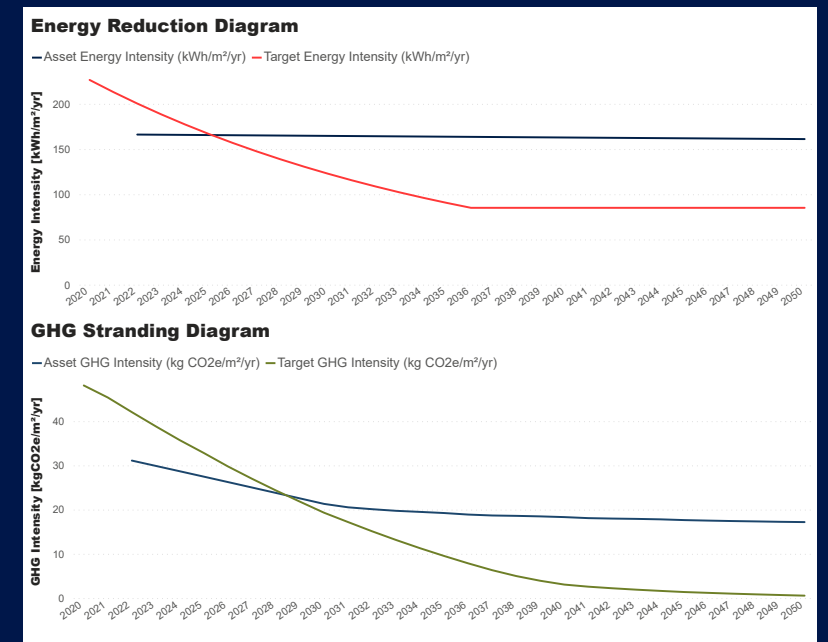
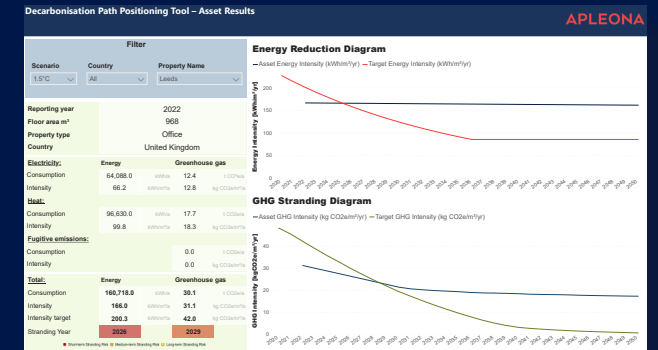


DECARBONISATION PATHWAYS USING A CRREM TOOL

- › We develop decarbonisation pathways for different types of buildings, free of charge to our clients.
- › Our carbon modelling tool is aligned with science-based targets
- › It uses energy consumption per floor area to determine what energy reductions are required for the property to be aligned with Net Zero Carbon transition
- › It requires a limited number of data setpoints

BENEFITS:

- ✓ It helps in developing a long-term decarbonisation strategy
- ✓ It suggests carbon reduction targets for the specific property
- ✓ No cost



DELIVERING ENERGY EFFICIENCY IMPROVEMENTS USING REAL-TIME DATA

Our building analytics system, E Box, gathers data from across multiple building points, analyses them and indicates where energy optimisation can be achieved.

- › It tracks real-time data from utility meters, pumps, boilers, ventilation, air conditioning, and lighting.
- › The system detects issues like out-of-hours use, override operations, conflicting valves, sequencing problems, setpoint errors, high fan speeds, and equipment faults.
- › It provides targeted recommendations, prioritising high energy users and potential savings, including operational and maintenance actions.
- › Connected via secure Ethernet and mobile internet through AWS, the data flows into a cloud-based platform for automated analysis. What took days of manual BMS interpretation, now takes seconds, enabling users to focus their efforts to take action and deliver



BENEFITS:

- ✓ Identifies opportunities for saving energy and cost
- ✓ Real-time data of the building's energy consumption
- ✓ Less time spent on energy reporting
- ✓ It benchmarks and compare performance and helps with forecast and budgets for utility consumption
- ✓ Electronic walk rounds for plant checks
- ✓ Plant issues can be identified



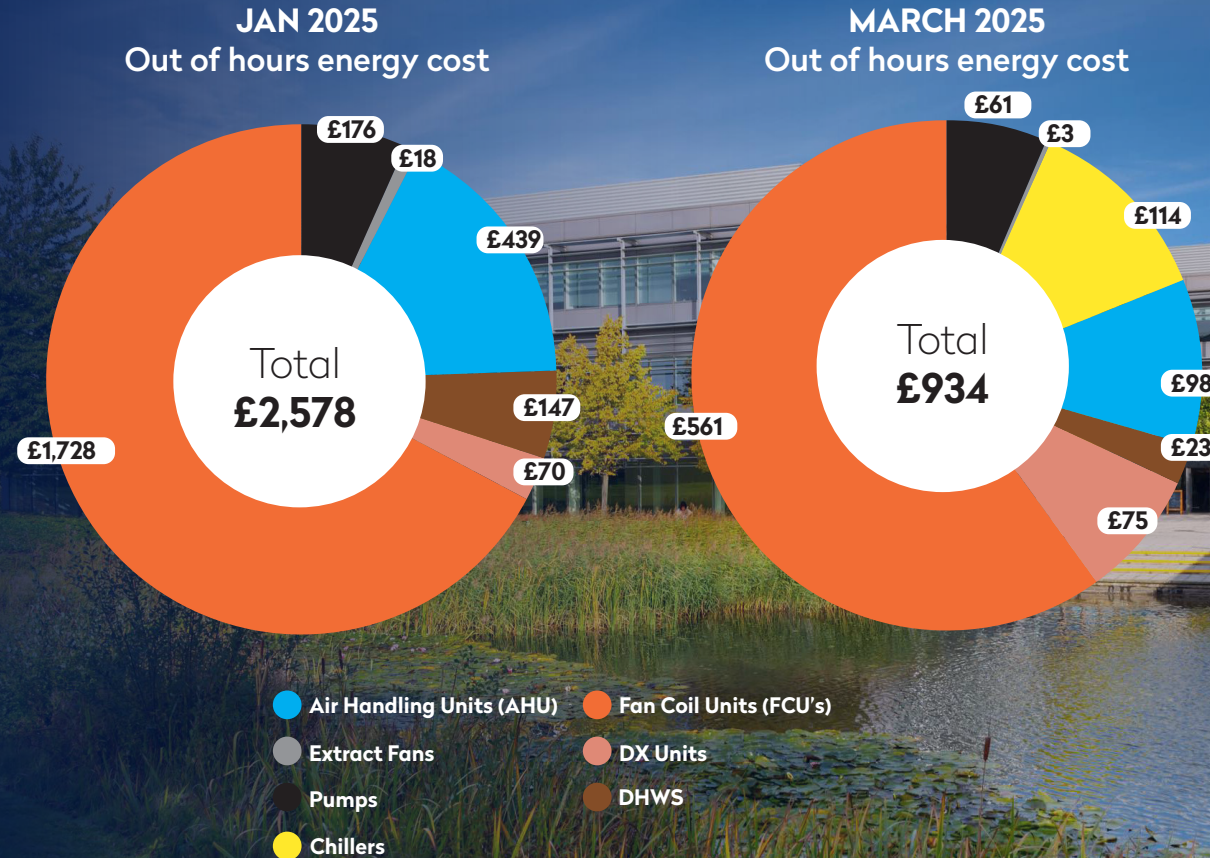
CASE STUDY: GREEN PARK, READING

Installation of Apleona Insights

The team at Green Park Reading successfully delivered substantial energy savings by utilising an analytics system, and undertaking the identified energy saving measures.

The analysis of the energy usage within the building identified excessive plant operation, inefficient motor and fan speeds, which were then corrected, resulting in a saving of £85,500 per annum equivalent to 145 tonnes of CO₂.

This success has led to our analytics system being installed in another building within the portfolio, with a further projected savings of between £60,000-£125,000 per annum which is equivalent to 102-262 tonnes of CO₂.



BMS HEALTH CHECK, ADJUSTING TIME SCHEDULES OF AHUs, CHILLERS AND PUMPS

- › Our engineers use their technical skills, experience and the knowledge of the building to ensure the operation of assets is optimised and reflect the building's occupancy.
- › We work with IoT sensors to gather additional data such as occupancy, CO₂ levels and temperatures to support recommendations.

BENEFITS:

- ✓ Meeting carbon reduction targets
- ✓ Reduced energy bills



CASE STUDY: ZF, SOLIHULL

Optimising energy efficiency at ZF

In collaboration with Camfil, we have reviewed the Air Handling Unit (AHU) filters for lowest energy cost, reduced waste and less change-outs. As a result, we have upgraded existing AHU filters at ZF facility in Solihull to Eurovent certified A+ energy-efficient models, with an estimated saving of 90 MWh/year.

The site has seen positive results from the upgrade, including:

- › Air filtration cost savings
- › Increased AHU efficiency
- › Improved air quality for health benefits and employee satisfaction
- › Reduced carbon emissions, waste, energy
- › Less air filter change-outs



Impact:



21,7 tonnes
of CO₂ saved/year



93 MWh
energy saved/year



6.70m³
waste saved

CASE STUDY: 70 ST MARY AXE, LONDON

Optimising assets to save energy

The primary objective at 70 St Mary Axe was to reduce energy consumption through optimising building systems.

We achieved substantial energy savings by installing a BMS Timeclock, which saved £309k on an investment of less than £5k.

We installed CO₂ sensors in the extraction ducting for AHUs, which led to over 78% energy savings and a remarkable ROI of just one month. We have also limited valve exercising to weekends only and we installed Tenant Optimisers and upgraded the BMS allowing automated adjustments based on outdoor temperature and actual demand.

Impact:



1,865 MWh
energy saved
over 2 years



443 tonnes
of CO₂ saved
over 2 years



£373k total
savings over
2 years

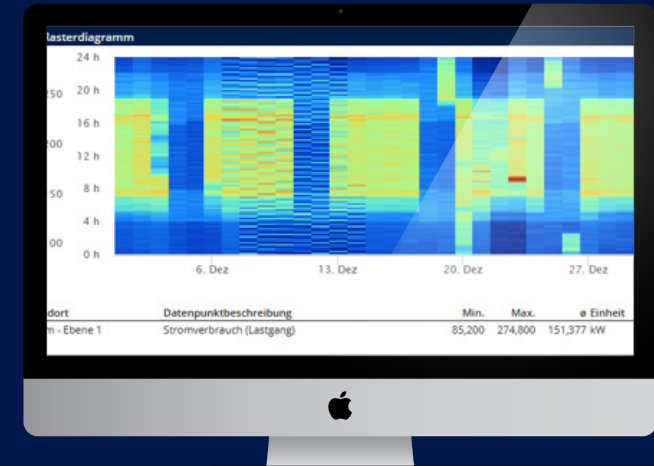
ENERLUTEC: ENERGY CONSUMPTION PROFILING



- › Enerlutec is our digital product which enables automated collection of energy data from meters, loggers and IoT sensors.
- › It can track usage of electricity, gas, water, steam at each meter level and display additional data sets obtained from IoT sensors, such as temperatures and occupancy.
- › Energy data in Enerlutec is presented in a user-friendly visual format
- › Data is monitored to detect any consumption anomalies
- › Enerlutec supports optimisation measures by highlighting exactly where, when and how much energy is used.

BENEFITS:

- ✓ All energy data in one central database
- ✓ Active energy management in real time
- ✓ Individual data access on demand
- ✓ Intuitive carbon reporting



CASE STUDY: ENERLUTEC

Energy Monitoring – Bristol Myers Squibb, Moreton

After monitoring the Enerlutec Energy Dashboard, Apleona conducted an initial examination of the electricity usage in the Transition Building. The study revealed a significant use of electricity during periods after hours. Further investigation uncovered that all electrical assets, including wall heaters and AC units, were operating continuously without any implementation of time-zone control.

After evaluating the data captured from the sensors, it was determined that implementing Time Zone Control for its electrical assets was necessary to address the issue. The control was set to operate from Monday to Friday, between 6am – 7pm, with no activity during weekends. This resulted in a total of 107 hours of non-electrical activity per week.

Impact:



23,5 tonnes
of CO₂ saved/year



111 MWh
energy saved/year



£16,580 annual
savings

LIGHTING/LED

- › We deliver complete lighting upgrades, including control systems where required.
- › We provide lighting design in accordance with BS EN 12464 -Light and lighting. Lighting of workplaces.
- › We can carry out inspections ensuring lighting controls operate correctly and lighting dims and turns off in response to daylight levels and occupancy.

BENEFITS:

- ✓ Reduced energy, operating and maintenance cost
- ✓ Enhanced lighting quality and work environment
- ✓ Increase in lighting lifetime
- ✓ Reduced carbon footprint



CASE STUDY: PENINSULA GROUP

Peninsula Group is a leading provider of HR, H&S and employment law services in the UK, Ireland, Australia and Canada.

Their global HQ is based in the heart of Manchester, The Peninsula, Victoria Place and consists of 17 floors. Our team has delivered a re-lamping project of floors 1, 5, and 12.

The project cost included all sundries, additional emergency lighting, and waste removal. Based on this, the return on investment (ROI) is a strong 1.74 years, with a total lamp lifetime saving of £235k over an 8-year lifespan of an LED fitting.



HVAC SERVICES

- › We provide replacement and upgrades of heating systems, ventilation systems and chillers.
- › We offer a design and installation service, including full turnkey project management for all building types.
- › Supporting government targets, we source alternative heating system options such as heat pumps. This support the Government's plans to phase out the sale of new gas boilers by 2035.

BENEFITS:

- ✓ Reduced energy and maintenance costs
- ✓ Enhanced work environment
- ✓ Reduced carbon footprint



HEATING SYSTEMS

- › Complete exchange
- › Heating analysis
- › Pumps
- › Combined heat and power
- › MSR optimisation

VENTILATION SYSTEMS

- › Complete exchange
- › Fans
- › Drive technology
- › Filter
- › MSR optimisation

CHILLERS

- › Complete exchange
- › Pumps
- › Cooling demand analysis
- › MSR optimisation



CASE STUDY: WOMEN & CHILDRENS HOSPITAL, HULL



In 2026, we undertook the project management of a major renewable-energy installation at Hull Women's Hospital. The programme involved coordinating the delivery, handling, and installation of 400 solar photovoltaic panels across multiple roof levels of the facility.

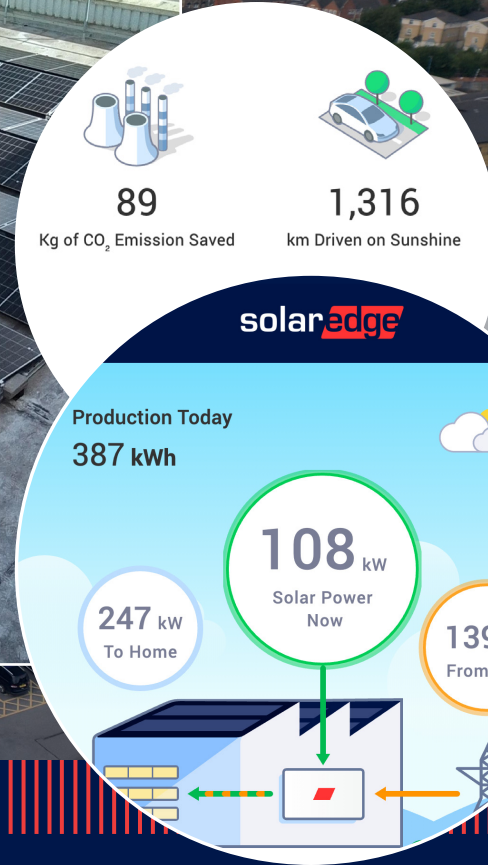
Our responsibilities covered the full lifecycle of the works, including electrical integration, system testing, and final handover of the 190 kW SolarEdge PV system. This project supports the hospital's sustainability goals by increasing on-site renewable energy generation and reducing long-term operational carbon emissions.

Impact:



The solar panels are currently providing around **13%** of the building's electrical supplies

Outperforming the initial estimate of 8%



CASE STUDY: UNIVERSITY OF HERTFORDSHIRE

Design & build installation of an ASHP

The Projects team successfully completed a complex design and build installation of an Air Source Heat Pump (ASHP) for University of Hertfordshire, marking the uni's first project of this kind as part of their Natural Gas Decarbonisation Plan.

Completed within the timeline dictated by university term dates, the installation has effectively eliminated the hot/cold reactive call-outs previously experienced with natural gas boilers and heavy refrigerant chillers, providing efficient heating and cooling to the Weston Auditorium Building.

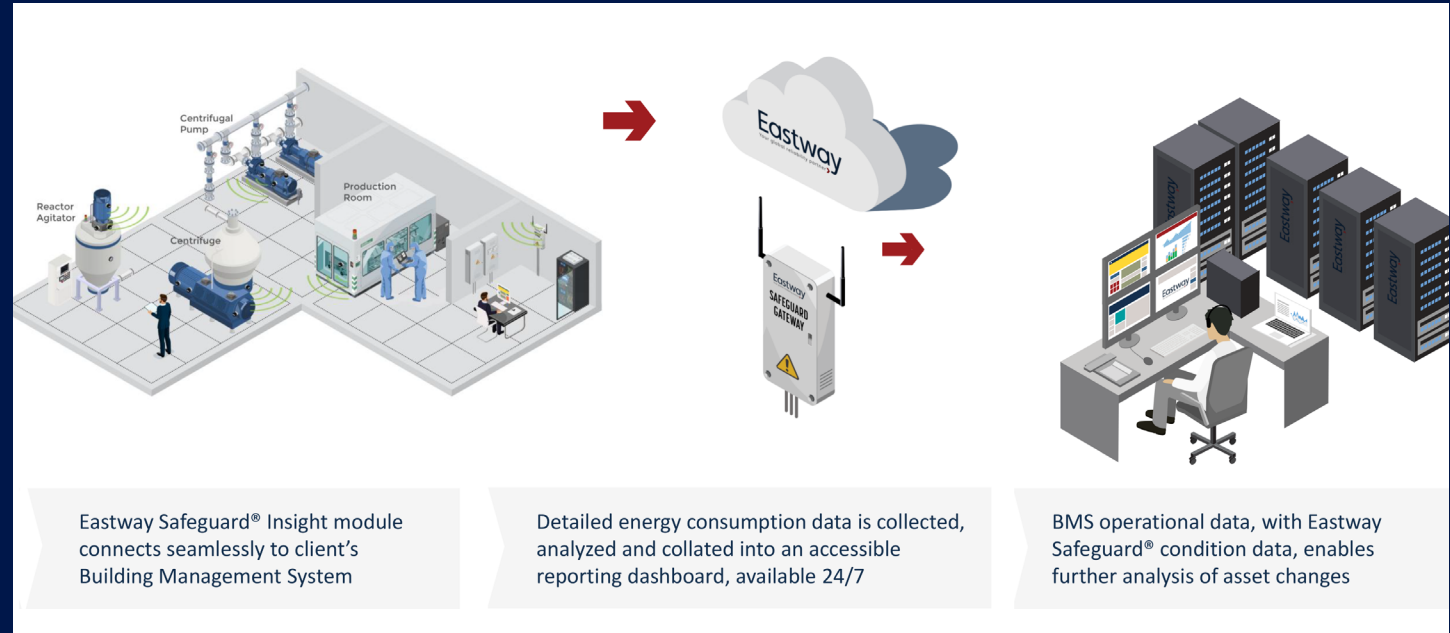


EASTWAY

- Eastway offers predictive maintenance via a 24/7 online monitoring system for critical assets
- Eastway uses IoT technology and AI-learning to monitor machine conditions and detected anomalies
- System predicts failures based on monitoring parameters such as vibration, temperature and acoustics
- Expert team performs root cause analysis for deviations and confirms cause of possible issue

Eastway

Your global reliability partner

**BENEFITS:**

- ✓ Dramatically reduce unforeseen equipment failures and unplanned downtime
- ✓ Prevents collateral damage to equipment
- ✓ Reduction of maintenance operations compared to preventative maintenance



CASE STUDY: EASTWAY

Eastway at BMS Moreton

Back in 2024, the client experienced 18 faults on their critical assets, leading to loss of time and investigations. Apleona has initially installed 8 Eastway sensors on 3 assets and immediate results were evident, with notifications informing of deviations associated with a motor.

The early notifications allowed the on-site team to arrange for maintenance and any necessary repairs, avoiding potential break-downs. Eastway technology is now monitoring 54 assets at this site, which has helped to completely eliminate any break-downs and faults in 2025.

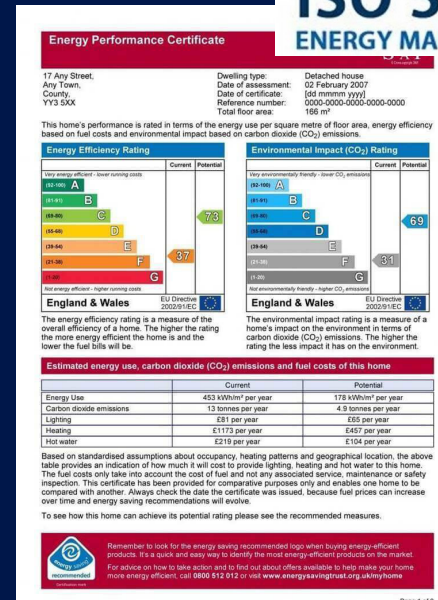
BENEFITS:

- ✓ Dramatically reduce unforeseen equipment failures and unplanned downtime
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ENERGY COMPLIANCE & ESG REPORTING

- › We ensure your assets are compliant with the latest energy efficiency standards.
- › We produce Energy Performance Certificates (EPCs)
- › We support your commitments under the ESOS regulations.
- › We deliver and support ISO 50001 accreditation for your properties
- › We monitor energy consumption, identify and implement optimisation measures
- › We support behavioural change campaigns.



TM44

- › Mandatory inspection of AC equipment with a cooling capacity greater than 12 kW
- › Requirement to be completed every 5 years to comply with the Energy Performance of Buildings Directive.

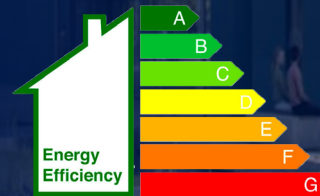
Energy Saving Opportunity Scheme - ESOS

- › Mandatory energy assessment aimed at large companies in the UK
- › Designed to help organisations improve their energy efficiency and meet carbon reduction targets

ENERGY COMPLIANCE & ESG REPORTING

We have an in-house capability to produce Energy Performance Certificates and support any ambition to achieve external certifications such as BREEAM, WELL and LEED. We support many clients that have BREEAM outstanding rating, including Bristol Myers Squibb Moreton Building 6 which is Carbon Negative and achieved BREEAM outstanding.

This building is heated through ground-source heat pumps and supported by around 800 solar PV panels which generate around 1MWh. Apleona's team have worked alongside the client's Project Team, capturing all assets and systems in the new Building 6, ensuring compliance, matrix for critical parts and developing asset maintenance.



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For more details, please contact
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