

Making Net Zero...

Achievable, Financially-viable and Sustainable for your Organisation

npower

**Business
Solutions**

powered by **e-on**

Businesses are committed to the net zero journey

Earlier this year, we launched the Business Energy Tracker, which revealed:

- More than half (55%) cite sustainability measures as their most important investment priority over the next 12 months
- A third (36%) say they believe the current energy crisis will aid progress towards net zero
- When questioned about energy risk, the most popular way to combat this is by implementing energy efficiency – cited by 58%
- A greater focus on using energy management tools was cited by 48%, appointing an energy specialist by a third (33%) and investing in self generation by over a quarter (27%)
- A survey by YouGov found that almost half of 502 UK organisations questioned are aiming to be carbon-neutral by 2030*
- 8% claim they have already reached this milestone
- So the net zero goal – and the journey to reach it – is a reality for the majority of UK businesses now

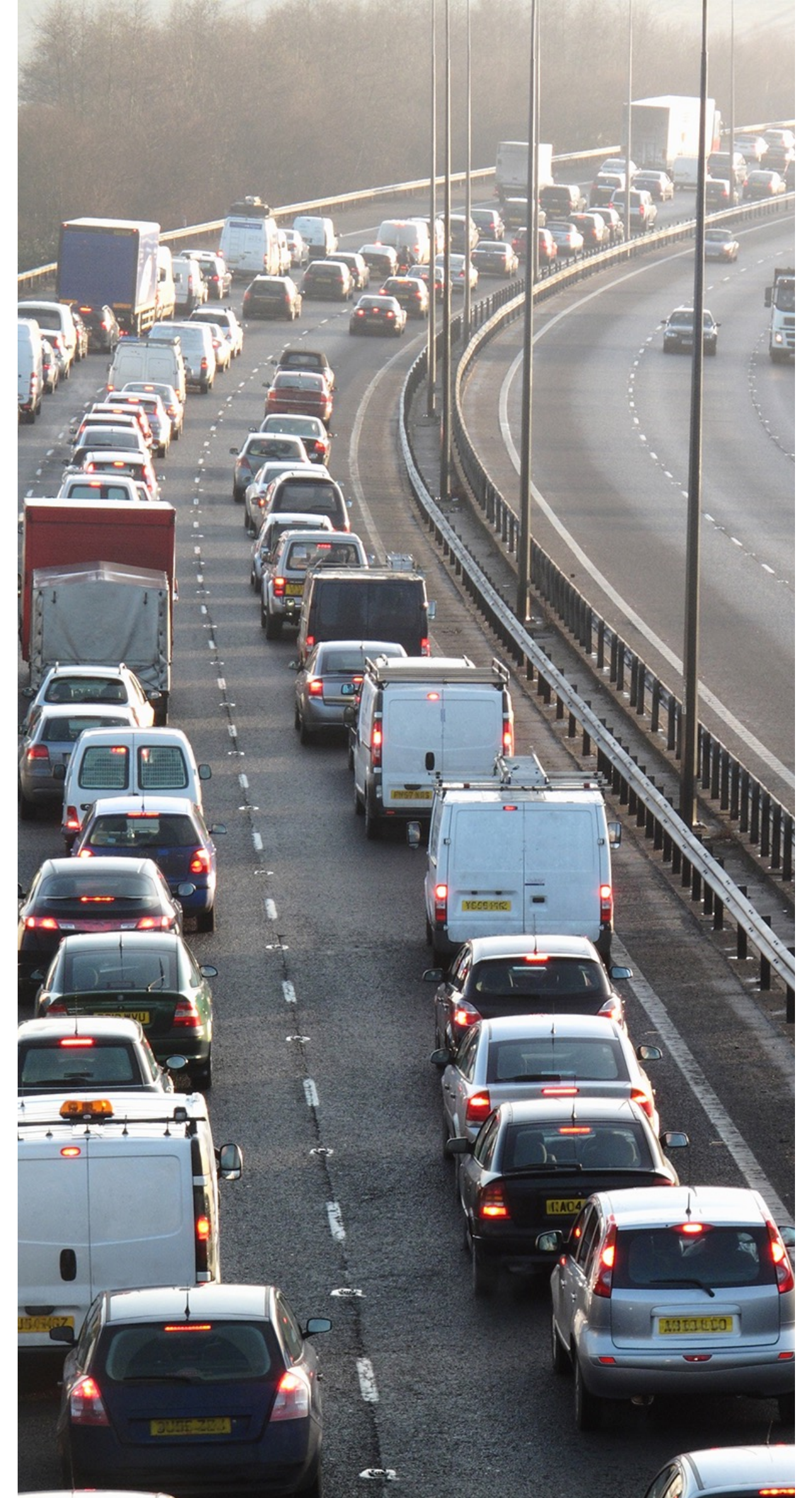
*Source: YouGov B2B Polling, 2019

What does net zero mean for your business?

Put simply, your business becomes net zero once it ceases to add any incremental greenhouse gases (GHG) to the atmosphere.

You can achieve this by:

- Minimising consumption of emissions-generating materials such as power and gas
- Switching to low-emission fuels, processes and activities, such as heat pumps and electric vehicles (EVs)
- Making use of new technologies as they become viable, such as green hydrogen or carbon capture and storage
- Finally, offsetting any emissions you cannot eliminate, for example via the investing in carbon sinks (e.g. forests, mangroves)



What does net zero mean for your business?

Greenhouse gas (GHG) emission scopes

1

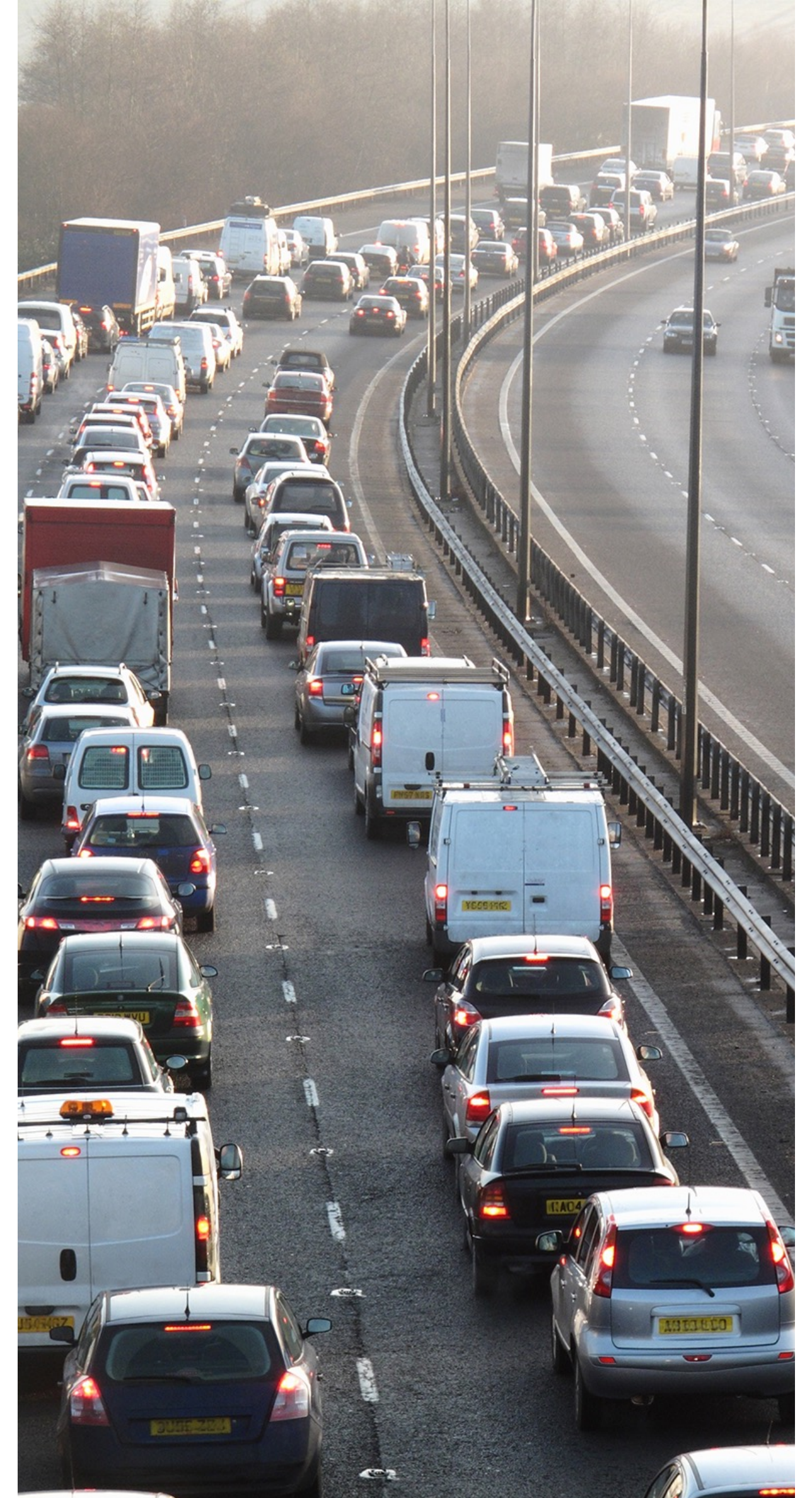
The emissions that are produced directly by your company – e.g. fuels burnt for operations, use of certain chemicals such as refrigerants and business mileage.

2

The indirect emissions that are produced from the purchased energy your business uses – e.g. electricity, gas and/or steam.

3

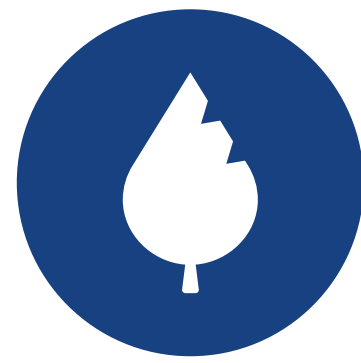
All the indirect emissions connected to your business activities and value chain, including 'upstream' and 'downstream' sources.



What net zero can deliver for your organisation?



**Budget
support**



Sustainability



**Reputational
benefits**



**Security /
Resilience**



**Attract
funding**

Net zero challenges

Knowing the baseline

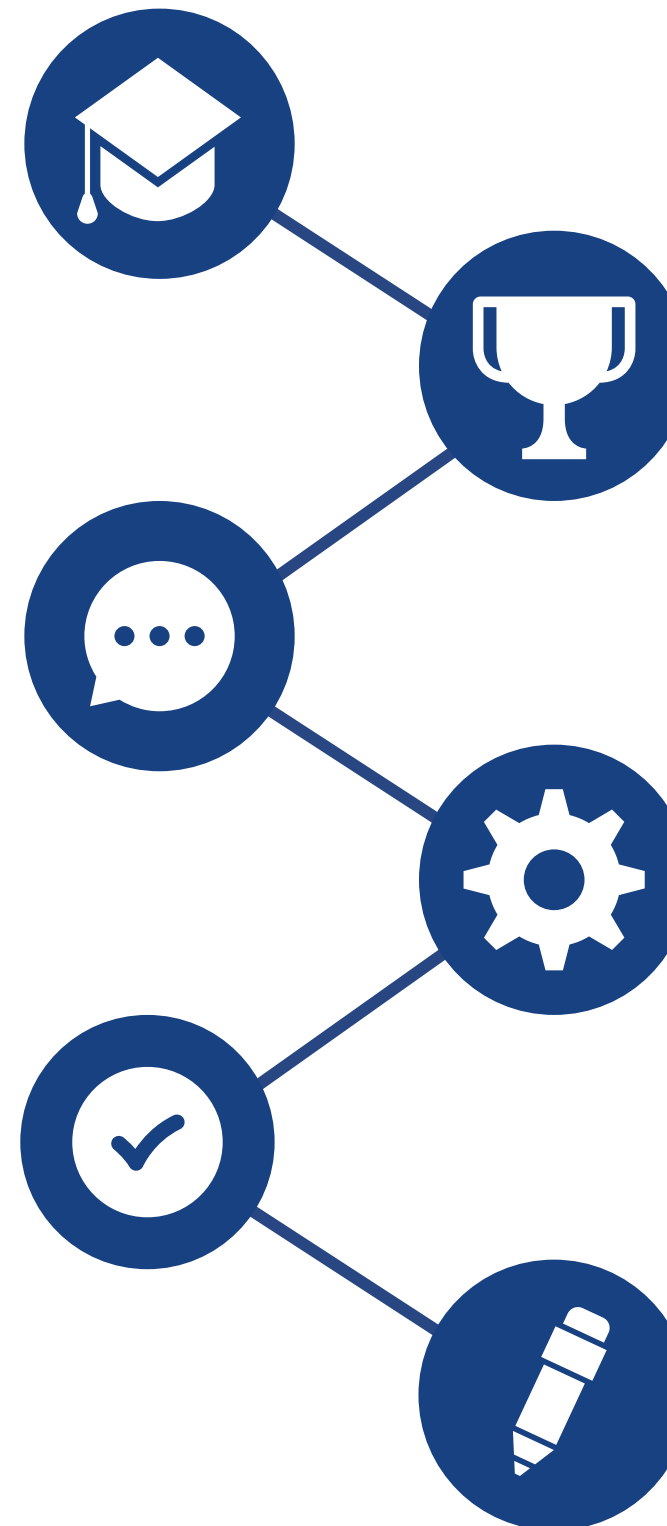
Understanding at granular level your GHG emissions and scopes.

Identifying the benefits

Understanding how net zero can benefit your organisation.

Securing funding

Building a strong business case and then sourcing funding/investment.



How to set targets

What models to use and how to set long-term future targets.

What technologies and projects?

How to optimum reduction of carbon and cost.

Proving the case

Clear measurement, performance and reporting of progress and benefits.

How to best approach your Scope 1 targets

Scope 1 defines emissions that are produced by your business activities or activities controlled by your business. To minimise, you need to first understand exactly what these are – then identify the best way to reduce them.



How to best approach your Scope 2 targets

These indirect emissions are produced from the consumption of purchased electricity, heat, steam and cooling. To reduce, first optimise consumption to minimise demand. Then consider:



Using decarbonisation technologies to reduce emissions load from heat, cooling and steam



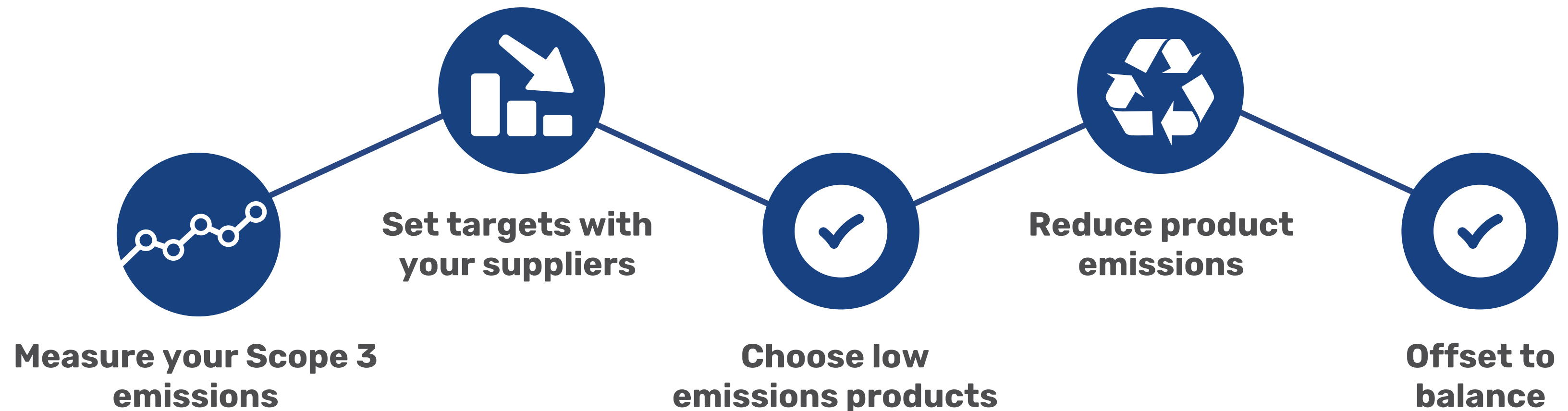
Investigating the potential of on-site generation and storage



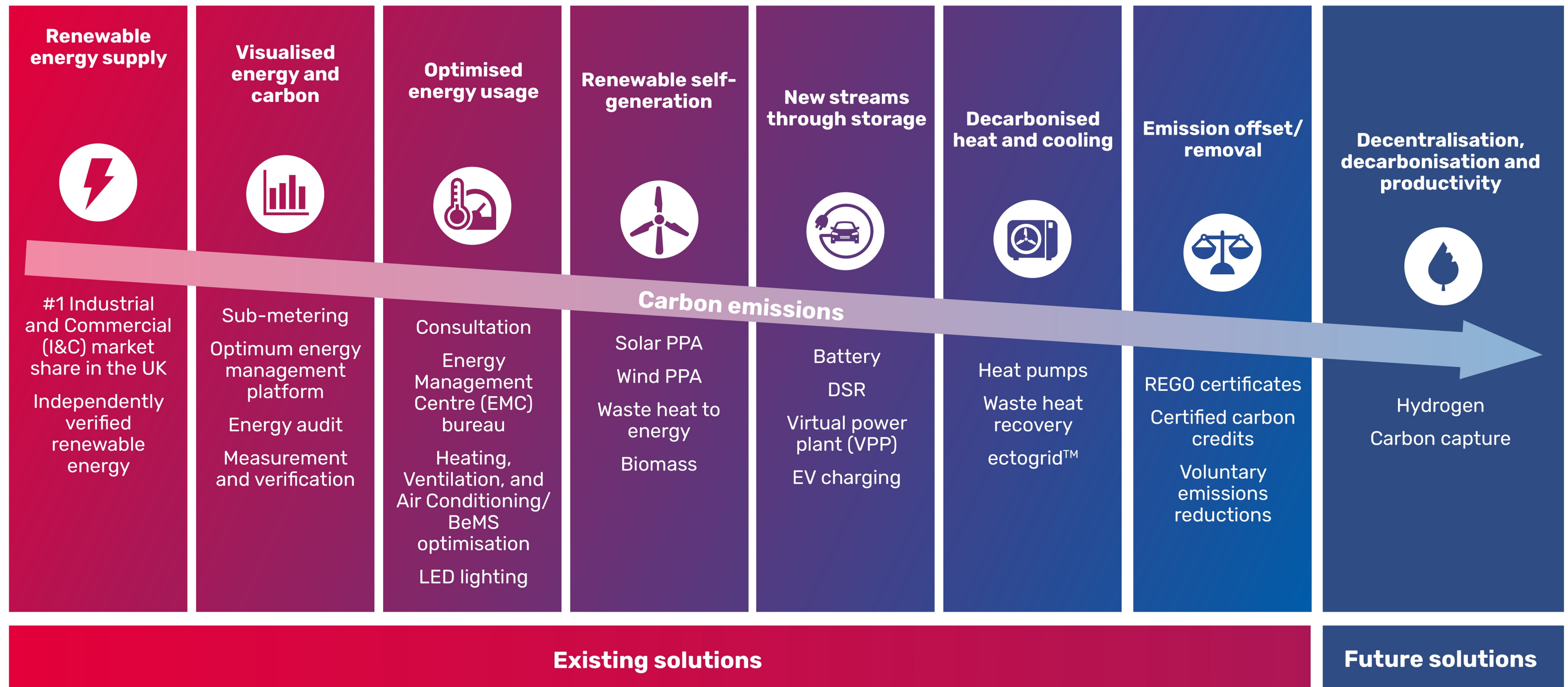
Sourcing renewable supply and Power Purchase Agreements (PPAs)

Understanding Scope 3 emissions

The emissions that are produced indirectly from your company activities are the most complex to address. According to the CDP, the average organisation's Scope 3 emissions are five-and-a-half times greater than those created by their direct operations.

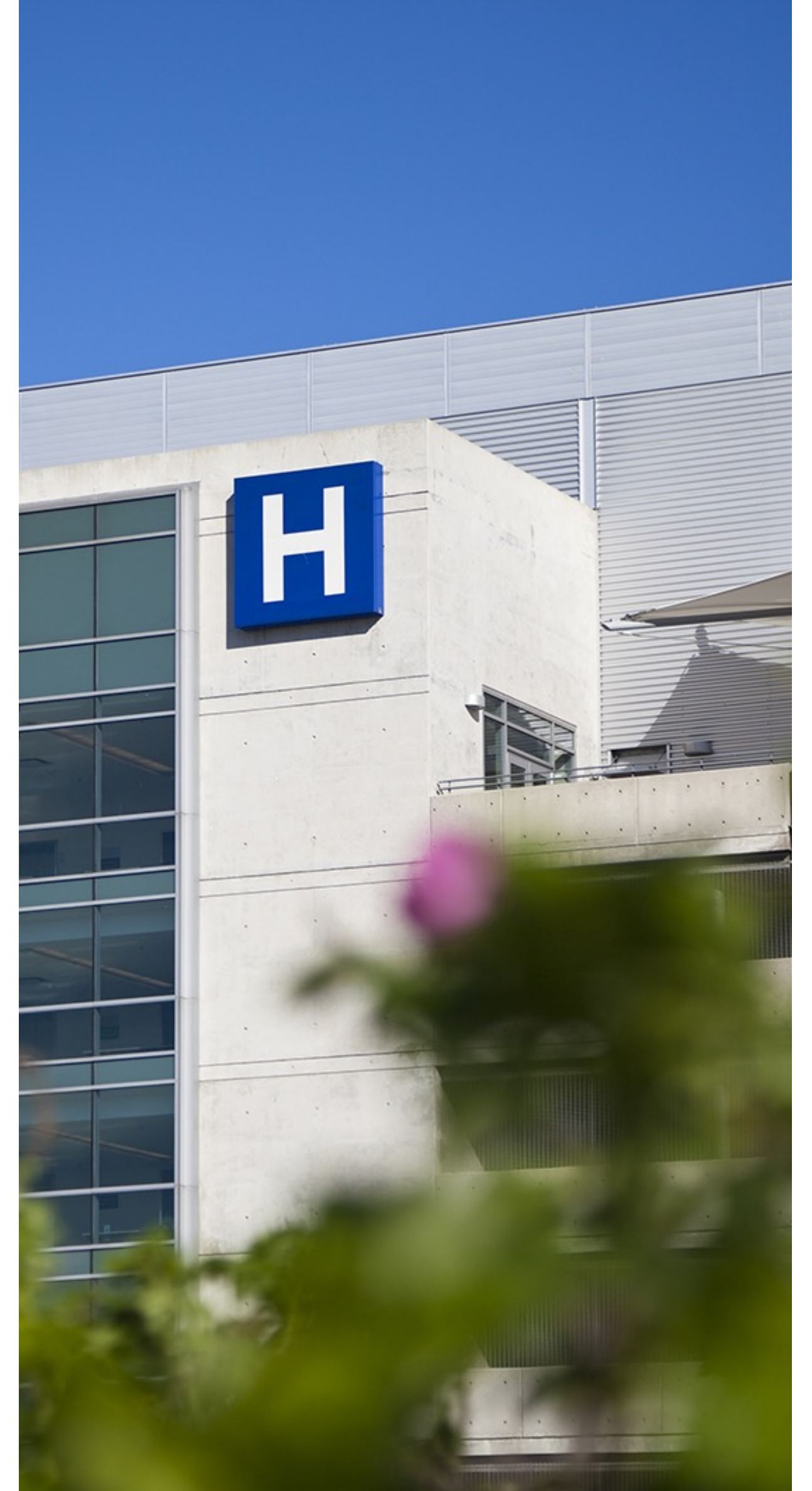


Technologies to support your bespoke net zero journey



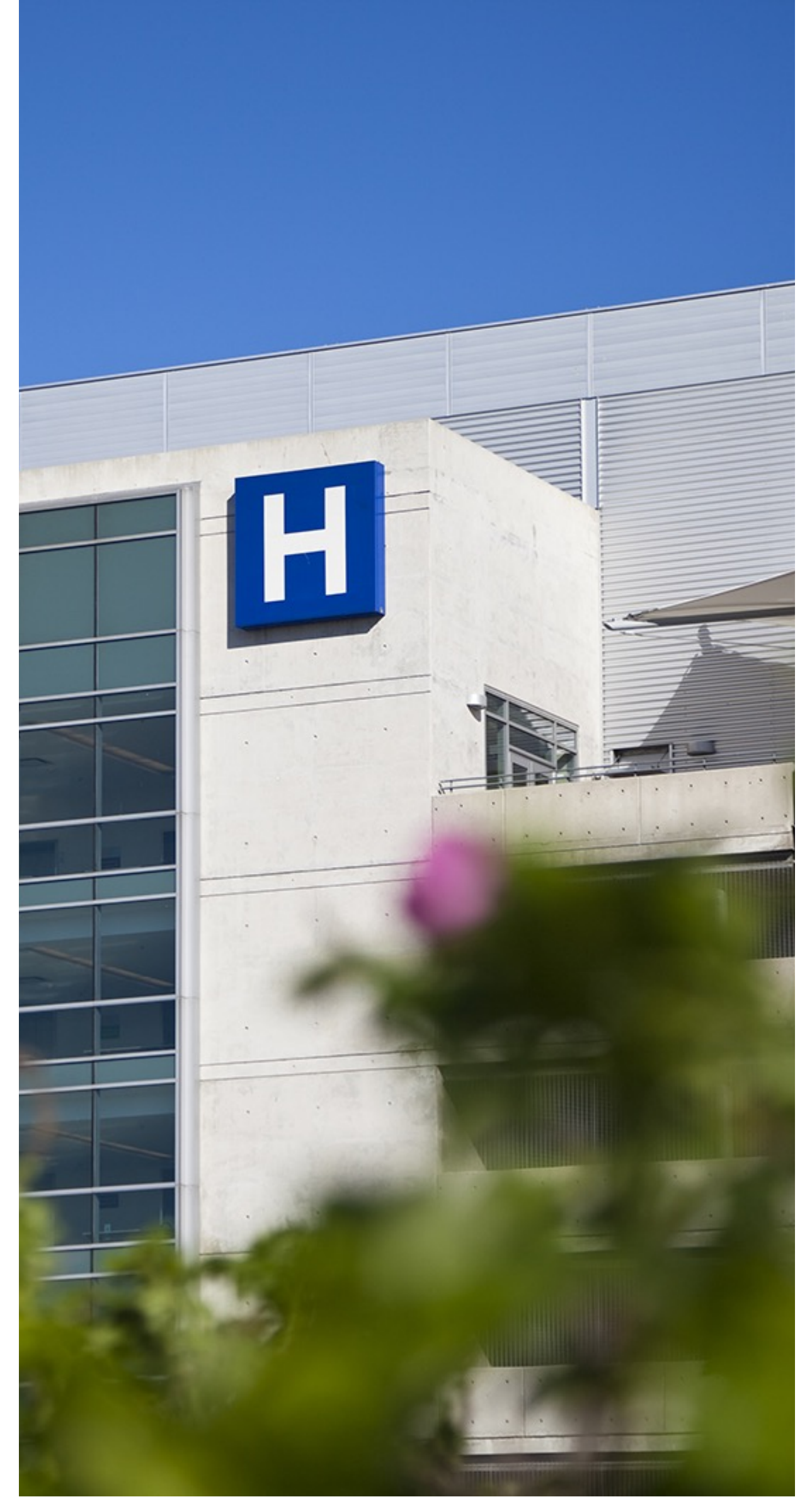
Case study: Displacing fossil fuels at leading UK hospital

- We've been working with a leading teaching hospital in the Midlands to implement fast-track reductions in both emissions and energy costs
- Most recent project has displaced around 37 gigawatt hours (GWh) of fossil fuels, delivering annual carbon savings of approximately 8200 tonnes
- Conducted energy audits, installed sub-metering and made data visible using our Optimum energy management system to support benchmarking and verification of energy/carbon savings



Case study: Displacing fossil fuels at leading UK hospital

- Automated the hospital's Energy Centre control system to manage energy use more efficiently and upgraded its Building Management System
- Replaced 18,300m² of poorly-insulated windows and insulated all the pipework
- Installed five hybrid heat pumps providing 7.2MW cooling and 11MW heating (or a mix of both)
- Installed two 2.5MW combined heat and power(CHP) plant, using gas now but with a plan to switch to hydrogen in the future



Case study: Supporting Tesco's net zero goals

- Tesco has committed to a science-based strategy to become a carbon neutral business by 2050
- We are supporting with solutions that provide energy tracking, monitoring and data insight functionality
- More than 2,900 Tesco stores are now connected to our 24/7/365 Energy Management Centre (EMC) to monitor energy use and operations
- Provides Tesco with energy dashboards and insight to drill down and look at detailed consumption data at site level.



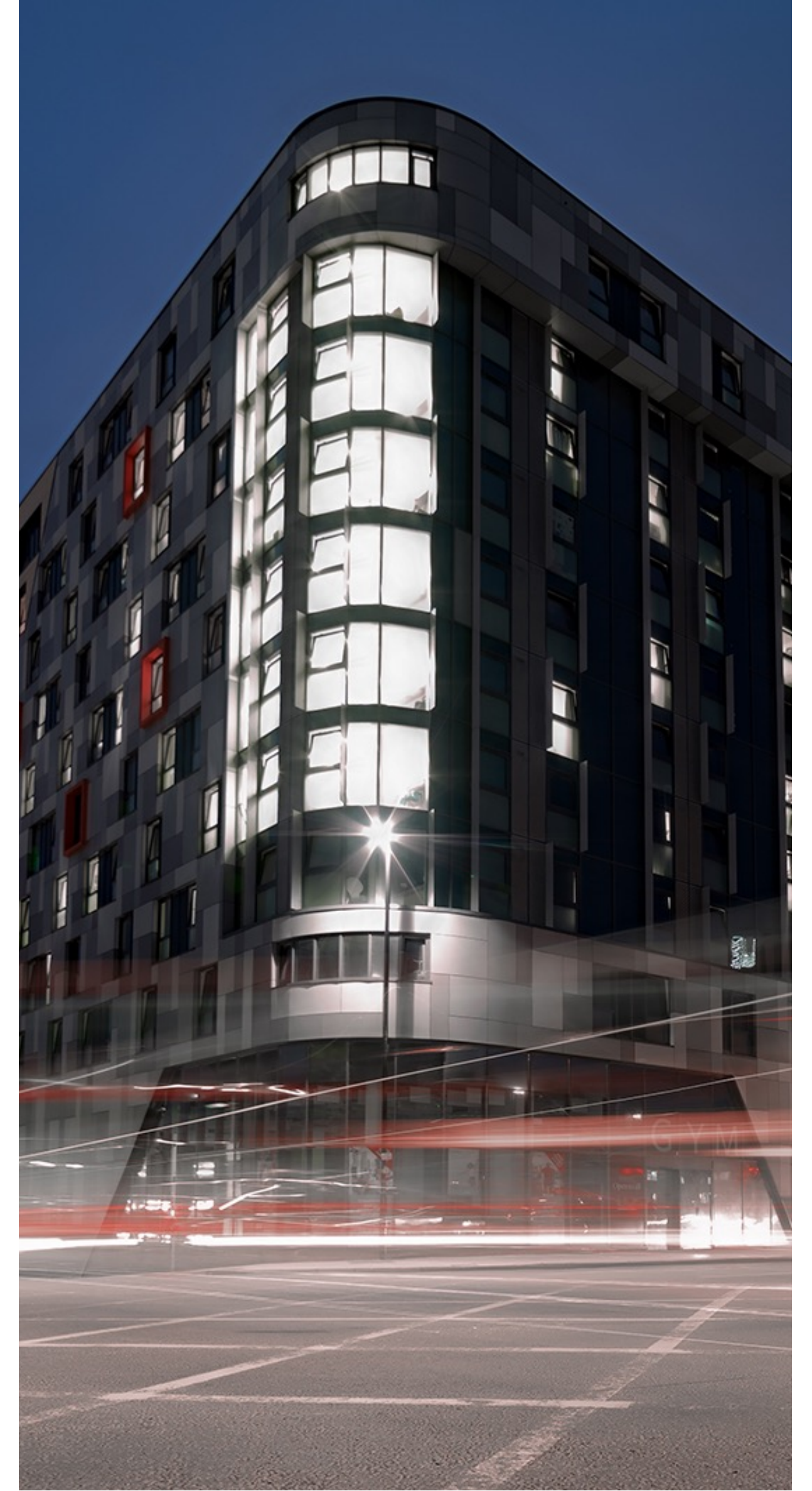
Case study: Supporting Tesco's net zero goals

- We then work with them to help prioritise actions, identify inefficiencies and target wastage, perform remote fixes and implement changes, and track results and financial returns from what the data is telling us. This includes real-time tracking for carbon-saving projects such as store re-engineering
- This has enabled Tesco to achieve 50% of their annual energy reduction via remote connectivity initiatives and maintenance in the last financial year



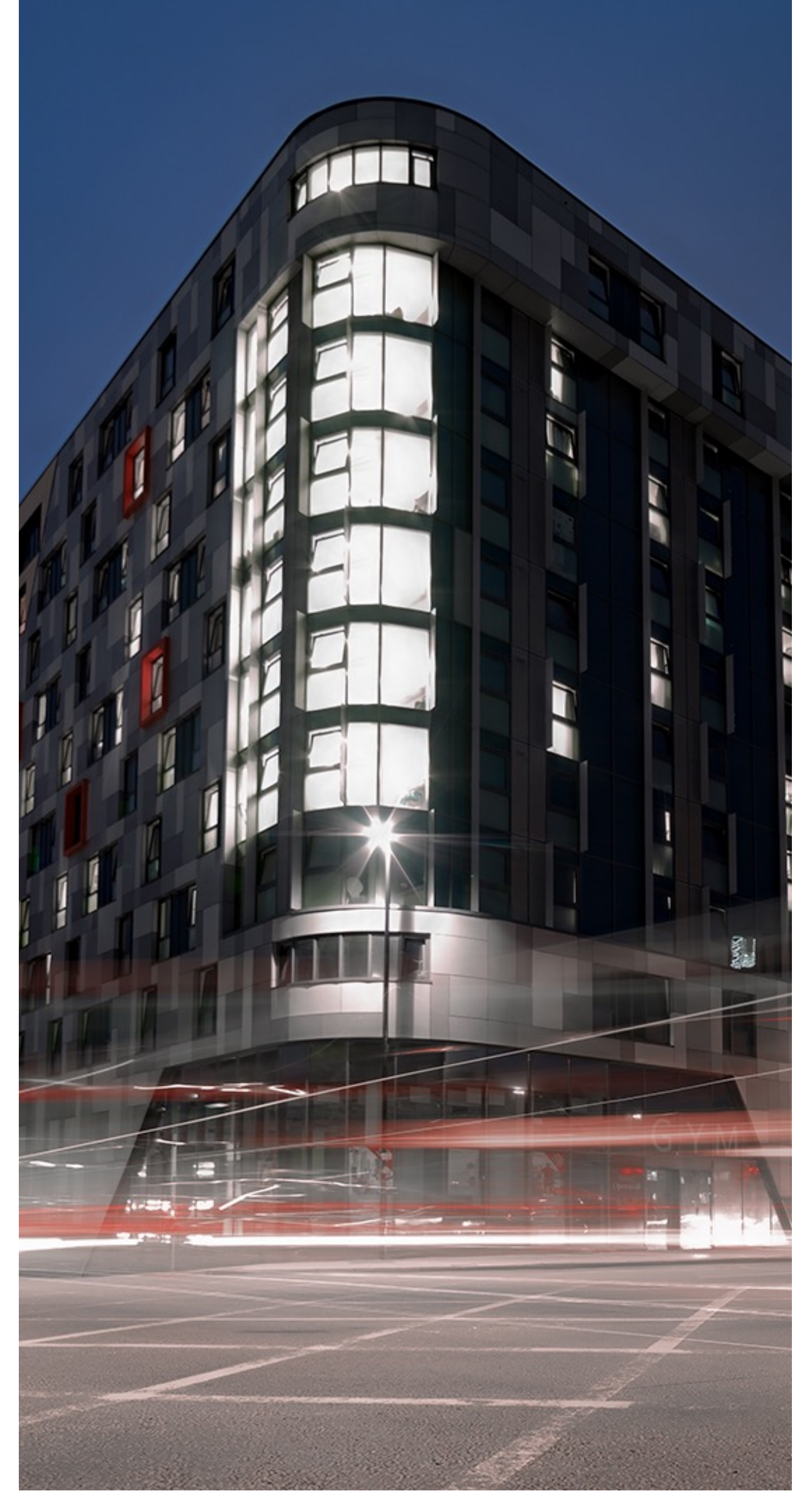
Case study: Saving cash and carbon for Southampton City Council

- Like many local authorities, Southampton City Council (SCC) has set itself an ambitious target of achieving net zero emissions by 2030
- As part of an initial programme, we have installed a number of measures across the SCC estate, including:
 - New double-glazed windows at Lordshill Library, reducing heat loss and noise, and new LED lighting that improves illumination at nearly half the cost of the previous inefficient fluorescent bulbs
 - Solar PV on the roof of flagship council building One Guildhall Square



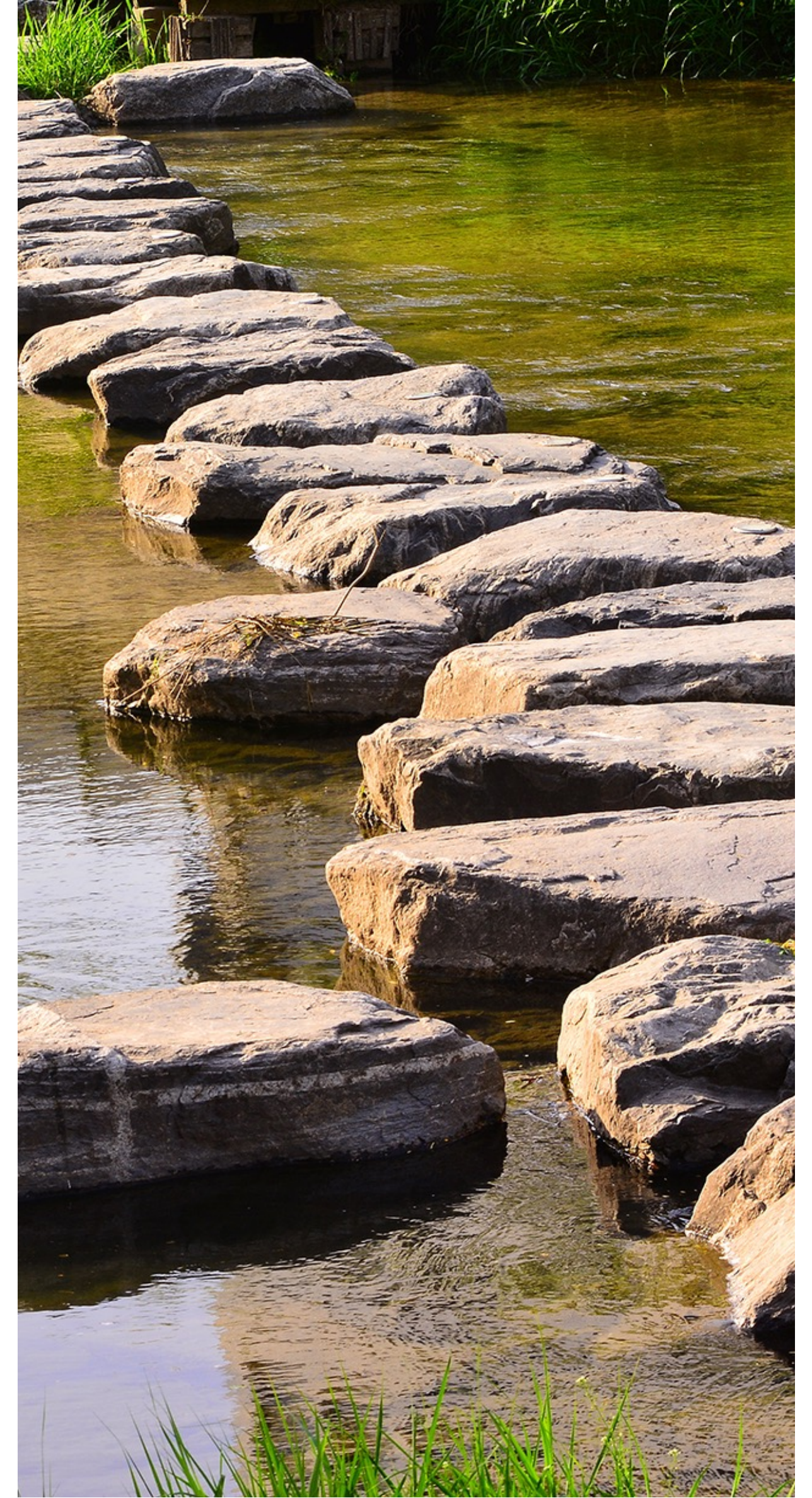
Case study: Saving cash and carbon for Southampton City Council

- Solar PV at household waste/recycling centre City Depot, plus an air source heat pump and LED lighting.
- Behind the scenes in various public buildings, modified air handling units to increase efficiencies and reduce maintenance bills. Variable speed drive technologies are also cutting costs/emissions by enabling operations such as air conditioning to be tailored to occupancy



Take-away messages

- Create a joined-up strategy that plots a clear path to net zero
- Understand the data as a starting point
- Ensure projects work together rather than in isolation
- Always ensure a strong business case before investing
- Technology and innovations are developing at pace – consult experts to get the latest view
- Work with a partner to maximise benefits



Thank you

For more information contact:

Gareth Metcalf

07795 353762

gareth.metcalf@npower.com



**Business
Solutions**

powered by **e-on**