



UK business and policy leadership for net zero

**Annex B
business case studies**





Case study: EDF

[EDF Group](#) is committed to **achieving net zero by 2050**. Its carbon intensity from generation in 2020 was 51 gCO₂e/kWh; five times lower than the European average.

EDF's 2030 emissions reduction targets have been validated by the Science-Based Targets initiative (SBTi) committing the business to:

- reduce Scope 1, 2 and 3 emissions from electricity by 50 per cent (2017 baseline), amounting to 25 mtCO₂e equivalent to a carbon intensity of approximately 25 gCO₂e/kWh
- reduce Scope 3 emissions from gas sold to end customers by 28 per cent (2019 baseline).

Over 90 per cent of the Group's net investments contribute to the decarbonisation of the electricity system.

[EDF in the UK](#) aims to enable £50 billion of investment in low carbon electricity generation from wind, nuclear and solar; is investing in low carbon technologies to decarbonise transport, heat and industry; and offers affordable zero carbon energy tariffs as standard.



Case study: National Grid

[National Grid](#) has a target of **net zero by 2050**. Between 1990 and March 2020, the company reduced direct emissions by 70 per cent. That is well in excess of its interim target, which was 45 per cent by 2020. In 2019, the company committed to reducing Scope 1 and 2 emissions to net zero by 2050, and has set out further commitments and ambitions in its Responsible Business Charter, including:

- Reduce Scope 3 emissions for the electricity and gas sold to customers by 20 per cent by 2030.
- Reduce SF6 emissions from operation by 50 per cent by 2030.
- Move to a 100 per cent electric fleet by 2030 for light-duty vehicles.
- Reduce energy consumption in offices by 20 per cent by 2030.
- Improve the natural environment by 10 per cent on land owned by 2030.
- Achieve zero carbon emissions from business air travel from 2020 onwards.



Case study: Scottish Power/Iberdrola

The company has a target to be **carbon neutral by 2050**.

The [Iberdrola](#) group has committed to reduce absolute Scope 1, 2 and 3 GHG emissions by 43 per cent by 2030 from a 2017 base year. The targets covering greenhouse gas emissions from company operations (Scopes 1 and 2) are consistent with the SBTi and reductions required to keep warming to 1.5°C.

Scottish Power already generates 100 per cent renewable electricity in the UK. To develop its commitment, Iberdrola has a six-point [climate action](#) plan.



Case study: Go-Ahead Group

[Go-Ahead](#) is an international transport group and one of the UK's leading public transport providers. It operates bus services across the UK, as well as in Ireland and Singapore. It is the largest operator of bus services in London. Outside the capital, the Group's regional buses account for about [11 per cent of the UK market](#). Go-Ahead's rail operation is the busiest in the UK, responsible for over 30 per cent of all train passenger journeys. Internationally, it operates rail contracts in Norway and Germany, and employs over 30,000 people.

In supporting the government's net zero commitment, the company is aiming to operate a **net zero bus fleet by 2035** and launched its **first fully electric bus fleet** in the North East of the UK in November 2020.



Case study: Nissan

[Nissan Motor Co., Ltd.](#) has set the goal to achieve carbon neutrality across the company's operations and the life cycle of its products by 2050 – this covers raw material extraction, manufacturing, use, and the recycling or reuse of end-of-life vehicles. As part of this effort, by the early 2030s every all-new Nissan vehicle offering in key markets will be electrified.

As the largest supplier of electric light commercial vehicles and second largest supplier of all electric vehicles to UK fleets, Nissan is working closely with UK businesses and government to support decarbonisation. In the last year alone Nissan has supplied 9 out of 10 of the largest fleets in the UK with EVs.

Nissan will pursue further innovations in electrification and manufacturing technology to make progress on the company's carbon neutrality goal in the following strategic areas:

- Battery innovations including solid-state and related technologies to develop cost-competitive and more efficient EVs.
- Further development of Nissan's e-POWER electrified powertrains to achieve greater energy efficiency.
- Development of a battery ecosystem to support decentralised, onsite power generation for buildings with renewable energy sources. Nissan anticipates increased collaboration with the energy sector to support the decarbonisation of power grids.
- Manufacturing process innovations to support higher productivity in vehicle assembly, starting with the Nissan Intelligent Factory initiative. The company will also strive for greater energy and material efficiencies to support longer term carbon neutrality ambitions.



Case study: Archetype

[Archetype](#), a medium-sized architectural practice in the UK with 70 staff, is committed to becoming a net zero company in its own operations, and continues to push for higher industry, client and policy standards

The practice is currently working with the University of Cambridge Institute for Sustainability Leadership (CISL) to make its new Entopia Building headquarters building an exemplar sustainable office. The building retrofit is projected to result in an 80 per cent saving in whole life carbon emissions, compared to a standard office refurbishment.

The Entopia Building will also set new standards for low energy use, carbon emissions and impact on natural resources as well as user experience and wellbeing measured against multiple benchmarks, including EnerPHit - the retrofit [Passivhaus](#) standard - [BREEAM](#) Outstanding, and [WELL](#) Gold standards.



Case study: Barratt Developments PLC

[Barratt Developments](#), the UK's largest housebuilder, has committed to become a **net zero business by 2040**, covering its direct operations.

Underpinning this pledge are a set of ambitious carbon reduction goals, approved by the SBTi, which align with a 1.5°C target.

Barratt has committed to purchase 100 per cent of its operational electricity from renewable sources by 2025. Just under half of the electricity it buys is already from renewables, and achieving the 100 per cent target will help it to reduce emissions by a further 3,300 tonnes of carbon.

As well as its direct operations, Barratt is also working with its suppliers and aiming to build zero carbon homes from 2030, reducing the indirect carbon emissions from its supply chain and its new homes after customers pick up the keys. This will be achieved through a 'fabric first' approach, more sustainable materials, low carbon heating and more efficient systems as well as smart technology in the home.

Finally, Barratt is taking a nature-based approach, seeking to create a net gain for biodiversity for all new developments that they take through planning from 2020.

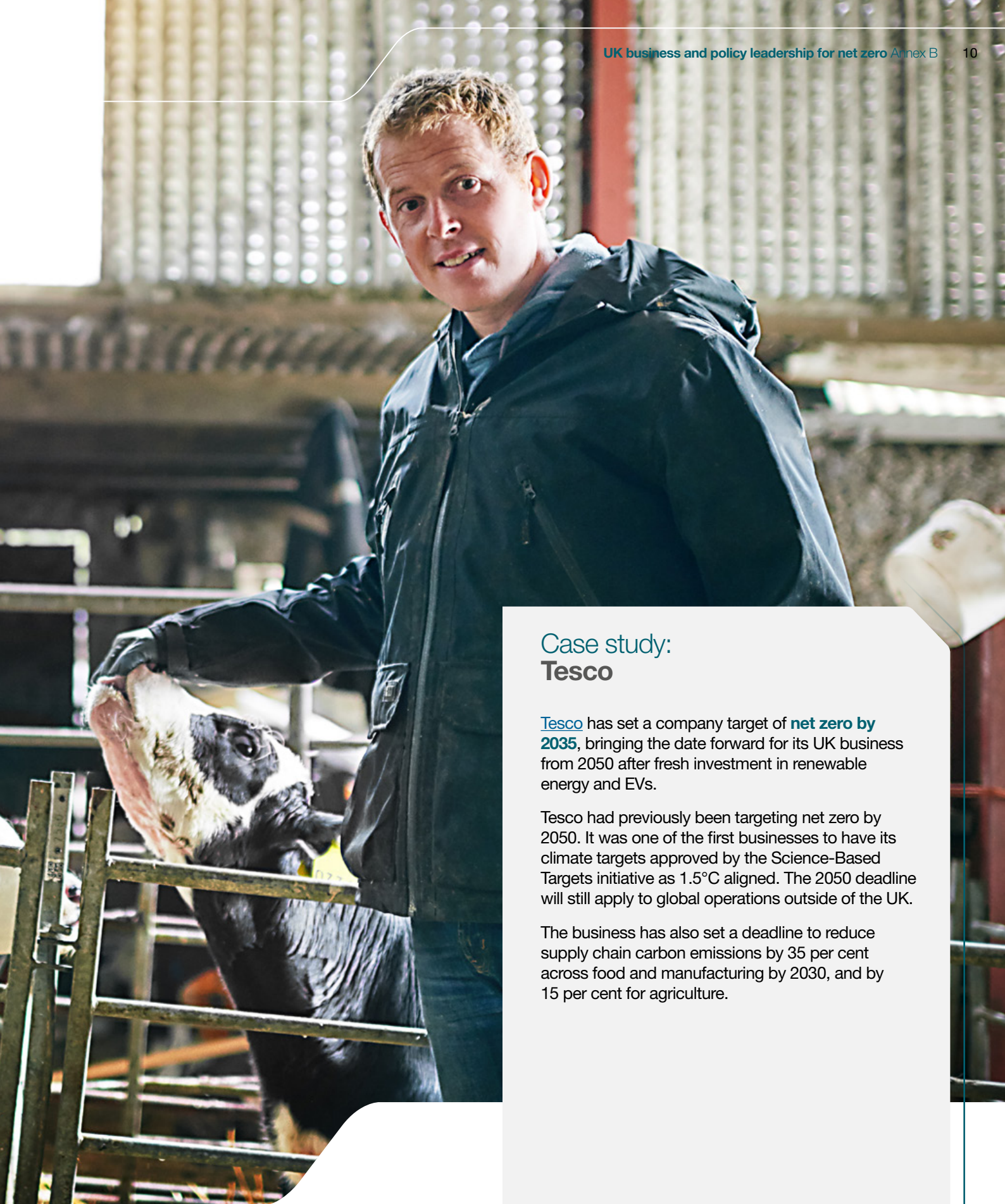
A thermal imaging photograph of a multi-story building at night. The image shows heat signatures in shades of yellow, orange, and red. The windows are brightly lit from within, showing a strong heat signature. The building's facade and roofline are visible in darker tones, with some heat signatures indicating structural elements or external lighting. The overall image has a grainy, high-contrast appearance typical of thermal photography.

Case study: Grosvenor Britain & Ireland

[Grosvenor Britain & Ireland](#) has many different roles, including landlord, developer, master developer, asset manager and public sector partner. The company has varying levels of control and influence over the buildings it owns and manages, but some of its day-to-day roles include refurbishments, repairs and maintenance of managed properties, including historic buildings.

Grosvenor is committed to being a **net zero carbon business by 2030**. It has developed a Net Zero Carbon Pathway, validated by the Science Based Targets initiative, to set out how it will achieve this goal. The net zero goal includes both direct (Scope 1 and 2) and indirect (Scope 3) emissions from the company's value chain.

The company has also committed to being a **climate positive business by 2050**.

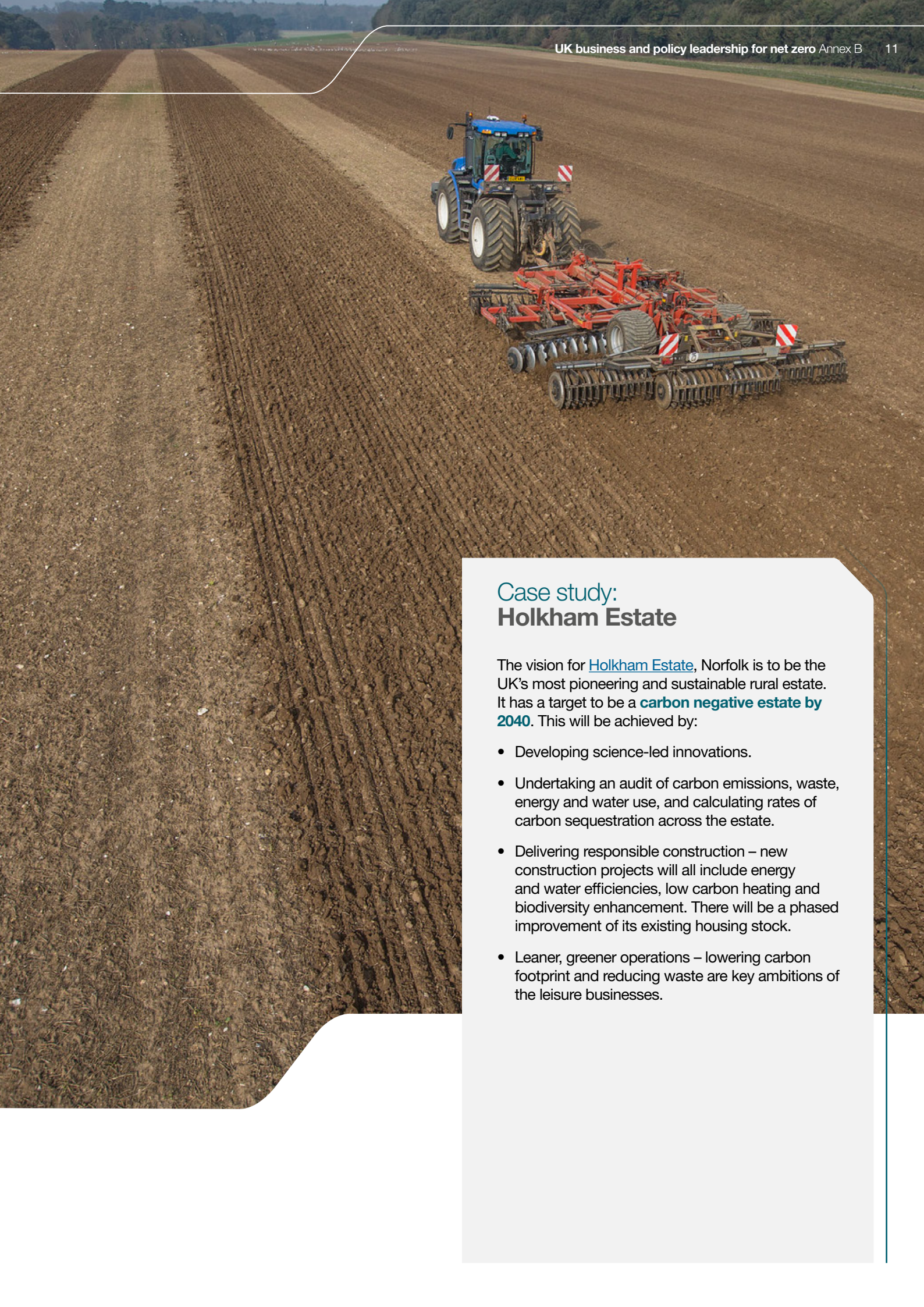


Case study: Tesco

[Tesco](#) has set a company target of **net zero by 2035**, bringing the date forward for its UK business from 2050 after fresh investment in renewable energy and EVs.

Tesco had previously been targeting net zero by 2050. It was one of the first businesses to have its climate targets approved by the Science-Based Targets initiative as 1.5°C aligned. The 2050 deadline will still apply to global operations outside of the UK.

The business has also set a deadline to reduce supply chain carbon emissions by 35 per cent across food and manufacturing by 2030, and by 15 per cent for agriculture.



Case study: Holkham Estate

The vision for [Holkham Estate](#), Norfolk is to be the UK's most pioneering and sustainable rural estate. It has a target to be a **carbon negative estate by 2040**. This will be achieved by:

- Developing science-led innovations.
- Undertaking an audit of carbon emissions, waste, energy and water use, and calculating rates of carbon sequestration across the estate.
- Delivering responsible construction – new construction projects will all include energy and water efficiencies, low carbon heating and biodiversity enhancement. There will be a phased improvement of its existing housing stock.
- Leaner, greener operations – lowering carbon footprint and reducing waste are key ambitions of the leisure businesses.

About the University of Cambridge Institute for Sustainability Leadership

The University of Cambridge Institute for Sustainability Leadership (CISL) brings together business, government and academia to find solutions to critical sustainability challenges.

Capitalising on the world-class, multidisciplinary strengths of the University of Cambridge, CISL deepens leaders' insight and understanding through its executive programmes; builds deep, strategic engagement with leadership companies; and creates opportunities for collaborative enquiry and action through its leadership groups.

Over the past 30 years we have built up a leadership network of 16,000 senior leaders and practitioners from business, government and civil society, who have an impact in every sector and on every continent. Their experience and insights shape our work, which is further underpinned by multidisciplinary academic research.

HRH The Prince of Wales is the Royal Founding Patron of CISL and has inspired and supported many of our initiatives.

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