

## **Leading the Way:**

Supportive examples from  
business on net zero  
implementation

## The UK Corporate Leaders Group

The UK Corporate Leaders Group (CLG UK) provides a strong voice to support UK leadership, nationally and internationally, for the transition to a climate neutral, nature positive and socially inclusive economy. The CLG has helped build consensus across the UK business community in support of climate action. CLG UK is convened by the University of Cambridge Institute for Sustainability Leadership. It is guided by CISL's world-class expertise and specialist teams to build understanding and shape policy for a sustainable economy.

## Authors and acknowledgements

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## Disclaimer

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# Contents

Introduction.....	3
Fair funding and affordability case study: ScottishPower – ensuring fairness in the transition to net zero .....	4
Skills and jobs case study: SSE – Investing in the just transition.....	5
Finance and investment case study: Anglian Water – Using sustainable finance to drive the net zero journey.....	6
Innovation case study: VELUX – Reducing scope 3 emissions through innovative aluminium partnerships .....	7
Infrastructure case study: EDF – Development of new energy infrastructure.....	8
Infrastructure case study: Thames Water – Biomethane from sewage sludge at Deephams Sewage Treatment Works .....	9

## Introduction

The UK Corporate Leaders Group (CLG UK) policy briefing *Leading the Way: How government can accelerate UK climate action across the economy* identifies a number of areas where cross-cutting actions can help accelerate the implementation of net zero. These are areas where transformative change is needed across all sectors of the economy and include developing the right skills; securing sufficient investment; promoting innovation and putting in place the right infrastructure to deliver a net zero economy. In many cases this requires changes to the underlying systems so that they are directed towards the goal of delivering net zero. It is also important that the transformative changes to the economy that are needed do not place an undue burden on those with the lowest incomes, hence funding should be fair and affordability should be considered.

To demonstrate what this type of transformative change might look like, this case study guide provides practical examples from CLG UK members. Each case study brings one of the cross-cutting areas into focus, showing where businesses are delivering changes to their practices. These examples of practical business action are just a single snapshot of actions by individual businesses and do not capture the full range of action that they are taking or will need to take. The transition to net zero will require more businesses to act across more of these areas. Each business follows their own net zero and sustainability journey, with changes in practice coming at different times for different companies. CLG UK support ambitious deployment of a mix of low-carbon mitigation solutions and therefore does not endorse any one single approach.

To fast track these changes and spread them across the whole economy, there is a role for government to do more to support and mainstream this type of business action. The *Leading the Way* policy briefing presents a set of recommendations for policy change that will allow this to happen, and support businesses to continue to play a leading role in decarbonisation of the economy. Building on these case studies there is a role for business to consider where they can have an impact through their own transition planning and delivery.

CLG UK intends to develop further work in these areas, continuing to identify examples of the business transition in action and the policy and leadership needed from government to enable this. The examples featured show where action is already happening and aim to encourage discussion about how to deliver more.

## Fair funding and affordability case study: ScottishPower – ensuring fairness in the transition to net zero

### Why does this matter to ScottishPower?

The transition to net zero will dramatically change society but there is a risk people could get left behind. ScottishPower is committed to ensuring that the energy transition is fair, and that the people they serve have a stake in shaping it. Ultimately, governments, businesses and other stakeholders will only have the consent and legitimacy to deliver net zero if the transition is affordable for society.

### What is ScottishPower doing to address affordability?

As ScottishPower transitions to a low carbon energy system, the company recognises it has a mission-critical role in helping deliver clean, secure and affordable energy in the UK. ScottishPower is tackling affordability threefold:

#### 1. Investment

Huge investment in renewable energy and electricity grids helps keep the cost to consumers down and is important to unlock net zero for communities. Without these billions of pounds of investment in energy infrastructure there will be no net zero, but keeping the cost to consumers down is vital.

#### 2. Energy efficiency

ScottishPower supports homes, businesses and communities on their own journey to net zero and is committed to helping customers reduce their energy use and lower their bills. The company provides energy-saving toolkits backed up with the technology to help make this easier. ScottishPower works with communities to deliver programmes that provide wider access to energy-saving technology, low carbon transport and community-based solutions.

#### 3. Supporting the most vulnerable

ScottishPower's retail business is an active participant in government schemes to provide customers with support for the cost of energy and to support energy-saving measures. Its dedicated Affordability Team supports customers with the right information and tools when they need it most. ScottishPower provides alternative payment options and tariffs for different customer circumstances and flexible repayment schemes for those who have built up debt.

### What does the government need to do to address this issue?

ScottishPower continues to work with government to address affordability and help direct support to vulnerable customers. It was instrumental in leading the industry to call for wider support at the peak of the energy crisis when many more homes and businesses struggled. Long term, it advocates a social tariff which would fix energy bills at a certain level for those on low incomes, protecting them from volatile energy markets. The cost would be recuperated through taxation or other customers and is already used by water providers to protect those struggling with payments. This would give longer term security for those that struggle most.

## Skills and jobs case study: SSE – Investing in the just transition

**Why are green jobs and skills important for SSE and its net zero ambitions? What are the risks from a lack of skills?**

SSE is investing up to £24 billion in low carbon infrastructure in the UK this decade. The company needs a green army of skilled employees to help them deliver, and that is why it is creating 1,000 new jobs a year to 2025, with opportunities for further growth. SSE needs people across business operations and in all parts of the UK, for projects including:

- delivering the world’s largest offshore wind farm in Dogger Bank off the north-east coast of England, Scotland’s largest and the world’s deepest tethered offshore wind farm in Seagreen off the coast of Angus, and what will be one of Europe’s most productive onshore wind farms, Viking, on the Shetland Islands
- working on the mega multi-billion-pound investments required to make the Transmission and Distribution Networks systems fit for net zero, and in efforts to secure sustainable futures for communities around flexible generation sites in Keadby on the Humber and Peterhead in the far north of Scotland.

Last year SSE welcomed 136 graduates into operations just a week after inducting over 150 new apprentices and trainee engineers, and is on track for record intakes again later this year. As well as supporting its own operations, SSE is also supporting the wider UK supply chain to the tune of more than 40,000 roles across the country.

**What is SSE doing to address the need for new skills in the workforce?**

SSE is looking at developing re-training programmes to widen its reach to those that want to join the green revolution. The company has also been at the forefront of a Just Transition, supporting sustainable careers for people moving from high carbon to low carbon roles, and in 2020 it was the first company in the world to establish a Just Transition Strategy. A recent study found that one in five SSE employees has already made such a transition. SSE also works with schools and a number of other organisations such as Barnardo’s, Career Ready and the STEM Returners scheme to get people into its industry. It has recently started to bring people into the business through Foundation Apprenticeships in Scotland and T Levels in England.

**What does the government need to do to address these opportunities?**

There is a need to better pave the road to opportunity by ensuring STEM is promoted widely and early in schools and to continue to make all trainee programmes easy to access. A strong message could be sent by giving a commitment to maintain funding for trainee programmes and by supporting organisations to look at transition programmes. As a UK business, one of the main challenges SSE has is that the rules of the system are different in each devolved country, eg it can use apprenticeship levy funding in England but not in Scotland as they have chosen a different route.



*Figure 1: SSE apprentices*

## Finance and investment case study: Anglian Water – Using sustainable finance to drive the net zero journey

### Why does this matter to Anglian Water?

The region Anglian Water serves is fast-growing and also vulnerable to the impacts of climate change. Not only is Anglian Water working to continue to provide water to customers, but it has also made a commitment to manage its business in the public interest, ensuring that environmental and social priorities are central to what it does. Decarbonisation of the business is central to this, and Anglian Water has made ambitious commitments to reduce emissions. The company aims to cut operational emissions to net zero by 2030 and reduce capital carbon (the carbon in the company's assets and what they build) by 70 per cent by 2030. Anglian Water will be investing over £3 billion in the period 2020–25, with net zero and capital carbon at the heart of the decision-making process to enable sustainable solutions.

### What is Anglian Water doing to invest in net zero?

The business is making use of sustainable finance to deliver its linked social, environmental and economic objectives. In 2021, Anglian Water became the first water company to issue a sustainability-linked bond to help achieve the company's net zero targets. The company has set targets to reduce both operational and capital carbon, and the bond benefits from competitive rates which are conditional on Anglian Water meeting its interim 2025 target to reduce operational carbon by 30 per cent from 2018/19 levels and reduce capital carbon by 65 per cent against a 2010 baseline. The £300 million bond will allow investment that builds water resilience in the east of England while also addressing climate change and protecting the environment.

This is part of Anglian Water's wider sustainable finance strategy, using green performance to attract more competitive finance and reporting on impact to investors.

### What can the government do to help?

The long-term interests of both customers and the environment depend on investment, which will be more costly if there are delays. This includes investments in nature-based solutions, which water companies are well placed to deliver and will help achieve the UK's net zero goal. Continued work by government to mainstream green finance in the UK will make this journey easier.

As this is a regulated industry, the approach taken by government and Ofwat to investment in the sector will be crucial to success. Encouraging the use of sustainable finance to fund investment is a part of this picture. Regulators also determine how investment is used, which can create barriers to delivering net zero.

## Innovation case study: VELUX – Reducing scope 3 emissions through innovative aluminium partnerships

The UN Global Alliance of Buildings and Construction estimates that 37 per cent of global emissions are from the built environment<sup>1</sup>, with over a quarter coming from embodied carbon. To help address this, the VELUX Group, a leading manufacturer of roof windows, rooflights and accessories, set out an ambitious sustainability plan in 2020 to reduce its own emissions (scope 1 and 2) by 100 per cent, and to halve the emissions in its value chain and its own products (scope 3) by 2030.

### How is VELUX innovating to deliver more sustainable products?

The core VELUX product, a roof window, is constructed mainly of timber, glass and metals. Aluminium is by far the metal used most, with a typical window containing 19 per cent aluminium. Aluminium is also used in flashings, shutters and other roof window accessories, and combined it constitutes 23 per cent of VELUX Group's total scope 3 carbon emissions, which is also by far the largest single carbon footprint contributor. Using more low carbon or high-recycled content aluminium, which typically requires 95 per cent less carbon to produce than non-recycled, will help to reduce the Group's overall scope 3 emissions.

For VELUX, the key innovation is around establishing circular material supply chains through business-to-business partnership. To help achieve a sustainable supply of recycled aluminium, VELUX has signed long-term contracts with two suppliers of low carbon recycled aluminium – Novelis and Hydro. Through these partnerships, the companies will continue to explore further ways to optimise carbon reductions and ensure that the materials used are more recyclable in future, such as developing more sustainable aluminium coatings. Innovation is required not just in how materials and products are made and used but also how they are designed to drive forward circularity.

### How can government support innovation?

The UK government could do more to stimulate the innovation of and demand for low carbon materials and products through regulation. This should also be supported by regulation around the construction and demolition phases that can help reduce emissions and supports the scale-up of material and product circularity to ensure supply chains meet demand. Furthermore, government can play a role in supporting best practice for reused and recycled content to encourage a better quality of material on the market.

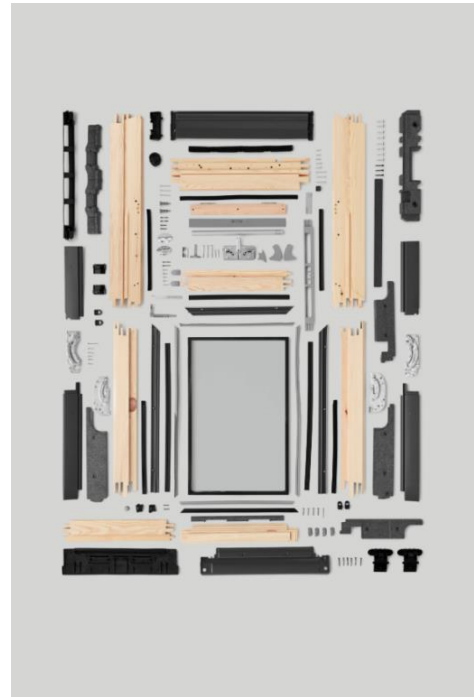


Figure 2: VELUX window with recycled aluminium

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<sup>1</sup> United Nations Environment Programme (2021). 2021 Global Status Report for Buildings and Construction: Towards a Zero-emission, Efficient and Resilient Buildings and Construction Sector, p.15, [https://globalabc.org/sites/default/files/2021-10/GABC\\_Buildings-GSR-2021\\_BOOK.pdf](https://globalabc.org/sites/default/files/2021-10/GABC_Buildings-GSR-2021_BOOK.pdf)



## Infrastructure case study: EDF – Development of new energy infrastructure

### Why does this matter to EDF?

The government has committed to expand UK nuclear capacity to 24GW by 2050 to deliver low carbon electricity and help decarbonise the economy. Delivering this increased capacity requires rolling out new nuclear power stations.

Nuclear power plays a key role to help Britain achieve net zero and ensure energy security. Generating electricity from nuclear plants has zero direct combustion emissions. Even when considering the lifecycle emissions, from construction to decommissioning, analyses have demonstrated that lifecycle emissions are very low and comparable to very low carbon renewable generation options, such as wind power.

### What is EDF doing?



*Figure 3: EDF nuclear power station roll-out*

EDF is supporting the net zero transition in the UK by investing in low carbon generation and operating, developing and constructing a fleet of nuclear, wind and solar. EDF is building a new nuclear power station at Hinkley Point C and working hard, with government, on a replica at Sizewell C. The company is also working on extending the operational life of Sizewell B. Together Sizewell B, Sizewell C and Hinkley Point C could deliver reliable low carbon power for more than 15 million homes.

EDF is also supporting the wider UK new nuclear programme with skills and sites to explore new nuclear technologies. Preserving and

developing nuclear skills – alongside financing and planning consent for new nuclear – is a key priority for all those with an interest in re-building the UK's nuclear capabilities.

### How can the government help?

Government has a role to play in developing the UK's nuclear power capacity. Finalising the arrangements for the Regulated Asset Base (RAB) model for new nuclear will allow external finance to be brought into new nuclear projects at scale.

The government can also support nuclear projects by quickly establishing the Great British Nuclear vehicle (GBN) with the mandate and funding needed to remove barriers and speed up delivery of new nuclear, including GW-scale, and Advanced and Small Modular reactors. GBN can help bring forward nuclear projects by developing a 'programmatic' approach to nuclear, with a long-term strategy aimed at resolving key issues related to new nuclear development including regulatory and planning processes, resourcing, and supply chain support.

## Infrastructure case study: Thames Water – Biomethane from sewage sludge at Deephams Sewage Treatment Works

How is Thames Water using infrastructure to achieve net zero goals?



*Figure 4: Deephams Sewage Treatment Works*

Thames Water has successfully delivered a new biomethane plant at Deephams Sewage Treatment Works in the London Borough of Enfield. Construction began in September 2021 and was completed in March 2022, with the plant first exporting the gas to the Cadent gas network on 30 March 2022.

The biogas from the anaerobic treatment of sewage is received by the biomethane plant and goes through an upgrading process that increases the methane and caloric value – this allows the gas to be

exported to the grid. Thames Water also uses the biogas generated during the sewage treatment process to power two combined heat and power units and two boilers on site, and has the potential capacity to export up to 1,150 cubic metres of biomethane every hour – up to ten million cubic metres a year – which is enough to heat 4,000 homes in the borough of Enfield. The new plant will also significantly improve air quality around Deephams and reduce the need to burn off excess biogas.

### How can the government support this?

Biogas handling schemes such as that at Deephams could be rolled out across the region and have the potential to offset 150,000 tonnes of carbon dioxide a year by 2030, the equivalent of one-fifth of Thames Water's carbon footprint in 2019/20.

The water sector is currently excluded from the government's Green Gas Support Scheme (GGSS). This prevents Thames Water from retrofitting ageing combined heat and power (CHP) units in sewage treatment works so that they can convert sewage sludge into biomethane gas to sell to the grid. The site in Deephams was able to take advantage of a previous government subsidy scheme (Renewable Heat Incentive), but there is no follow-up scheme available. Water UK has calculated that the water sector could contribute two-thirds of the government's stated green gas ambitions if eligible for GGSS.

Investing in infrastructure, both sewage treatment plants and the gas grid, would improve energy security, providing domestic gas from an abundant renewable resource, as well contributing to the decarbonisation of gas grids.