

How our strategic report is structured

These pages help to set out the component sections of our strategic report and where readers can find relevant information.

Business overview – pages 04 to 17

In the business overview, we set out our operational and financial highlights for the year ended 31 March 2024 and our Chair and Chief Executive Officer (CEO) summarise their thoughts on the year and outlook for the future. In our investment proposition we highlight our track record of good and improving performance, strong balance sheet, and opportunities in the medium and long term.

- Chair's review** → See pages 04 to 05
- How we create value*** → See pages 06 to 09
- Highlights for 2023/24** → See pages 10 to 11
- CEO's review** → See pages 12 to 15
- Investment proposition** → See pages 16 to 17

* In the section on how we create value, we provide examples of how our activities create sustainable long-term value for a broad range of stakeholders, as set out below, and wider value including contributing to the UN Sustainable Development Goals (SDGs).



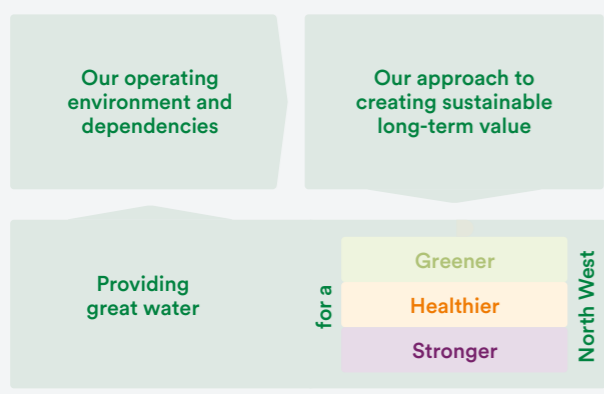
Our business model – pages 18 to 67

Our business model reflects the circular economy in which we operate and how we deliver our purpose.

Our operating environment and dependencies

In this section we set out the key impacts of our external environment, and the impacts and dependencies we have on each of the six capitals (our key resources). Our materiality assessment brings together each of these aspects to rank material themes by reference to their impact on our ability to create value for stakeholders as well as their potential impact on our business.

- Key resources** → See pages 20 to 23
- External environment** → See pages 24 to 27
- Materiality assessment** → See pages 28 to 30



Our approach to creating sustainable long-term value

Across the remainder of our business model, we disclose information on our overarching approach and how we are addressing the most material themes, using the four pillars of disclosure requested by the International Sustainability Standards Board (ISSB). As shown on the page opposite, this incorporates our disclosures under the TCFD and TNFD frameworks.

- Strategy** → See pages 31 to 43
- Governance** → See pages 44 to 50
- Risk management** → See pages 51 to 62
- Metrics and targets** → See pages 63 to 67

Our performance – pages 68 to 97

We report our operational performance across the three key elements of our purpose, which are closely aligned with the sustainability principles of environmental, social and governance (ESG).

- Greener** – performance for the environment, including our energy and carbon report and a case study on how we are improving rivers.
- Healthier** – performance for customers, colleagues and other social matters, including a case study on our unique five counties approach.
- Stronger** – performance for communities, suppliers, efficiency and other governance matters, including a case study on our compliance committee.

We then provide a summary of our **financial performance** and our AMP7 financial framework.

- Greener** → See pages 68 to 77
- Healthier** → See pages 78 to 83
- Stronger** → See pages 84 to 89
- Financial** → See pages 90 to 97

Non-financial and sustainability information statement

The table below constitutes the company's non-financial information statement, produced to comply with section 414CA of the Companies Act 2006.

It sets out where we have made our climate-related financial disclosures required by s414CB(A1) and non-financial areas of disclosure required by s414CB(1) including information on our business model, policies, principal risks and the non-financial key performance indicators (KPIs).

This table also demonstrates where we have made the recommended disclosures of the Task Force on Climate-related Financial Disclosures (TCFD) and Task Force on Nature-related Financial Disclosures (TNFD) frameworks.

Reporting requirement	Key:						TCFD	TNFD
	Environmental matters	Colleagues	Respect for human rights	Social matters	Anti-corruption and anti-bribery	Full disclosure		
Business model including our key resources and the external environment (pages 18 to 27).	✓	✓	✓	✓	✓	●	●	
KPIs relating to our environmental impact (pages 68 to 72).	✓	✓	✓	✓	✓	●	●	
KPIs relating to customers, colleagues and other social metrics (pages 78 to 82), Gender pay report (page 81).		✓	✓	✓	✓			
KPIs relating to communities, suppliers and other governance metrics (pages 84 to 88).			✓	✓	✓			
Strategy								
Strategic priorities and business horizons (pages 28 to 33).	✓	✓	✓	✓	✓	●	●	
Risks and opportunities over the short, medium and long term: Climate (page 34), Nature (pages 40 to 41).	✓					●	●	
Impact on business strategy and financial planning: Climate (page 35), Nature (pages 40 to 41).	✓					●	●	
Resilience to risks in different scenarios: Climate (page 36), Nature (pages 40 to 41).	✓					●	●	
Priority locations of assets and activities (pages 40 to 41).		✓	✓	✓			●	
Governance								
Our culture and core values (pages 44 to 45).		✓	✓	✓	✓			
Corporate governance: Structure and responsibilities (pages 44 to 45 and 106 to 108), Competitive base salary and benefits (page 145), Board diversity (page 115).	✓					●	●	
Board oversight of risks and opportunities: Climate (pages 48 to 49), Nature (page 49).	✓					●	●	
Management's role in managing risks and opportunities: Climate (page 49), Nature (page 49).	✓	✓	✓	✓	✓	●	●	
Other material themes: Equity, diversity and inclusion (pages 42 to 43, 50, 60 and 67), Stakeholder engagement (pages 46 to 47), and S172(1) Statement (pages 47 to 48).		✓						
Risk management								
Our approach to management and our principal risks (pages 51 to 56).	✓	✓				●	●	
Processes for identifying and assessing risks: Climate (page 58), Nature (page 59).	✓					●	●	
Processes for managing risks: Climate (page 58), Nature (page 59).	✓	✓				●	●	
Integration of risk management: Climate (page 58), Nature (page 59).		✓	✓	✓	✓	●	●	
Metrics and targets								
Stakeholder metrics and targets (pages 72, 82 and 88).	✓		✓	✓				
Metrics used to assess risks and opportunities: Climate (page 65), Nature (page 66).	✓		✓			●	●	
Targets used to manage risks and opportunities: Climate (page 65), Nature (page 66), Other themes (page 67).		✓	✓	✓	✓	●	●	
Policies, guidance and standards that govern our approach (*Where marked see our website, otherwise only published internally)								
Environmental policy*, Water Resources Management Plan*, Waste and resource use policy, Climate change mitigation policy.	✓							
Health, safety and wellbeing policy*, Equity, diversity and inclusion agenda* and report*, Flexible working policy, Agency worker policy, Mental wellbeing policy, Board diversity policy (page 115).		✓						
Human rights policy* and engagement activities (page 49).		✓	✓				●	
Colleague data protection policy, Anti-Slavery and human trafficking statement.*			✓					
YourVoice, Charitable matched funding guidance, Volunteering policy.				✓				
United Supply Chain* (page 87), Commercial procurement procedures, Responsible sourcing principles.*				✓	✓			
Anti-bribery and corruption policy, Fraud investigation and reporting processes, Internal control manual (financial), Whistleblowing policy (page 110).					✓			



Greener: climate

Climate strategy: How climate-related risks and opportunities impact the organisation's businesses, strategy and financial planning

TCFD strategy disclosures

- a) The most material climate risks identified are listed below, including how they change over short (up to one year), medium (to 2030) and long-term (beyond 2030) horizons.
- b) The changing rainfall patterns have a substantial impact on our strategic and financial planning across all areas of the organisation.
- c) The climate has already changed and will continue to do so under all future projections. We are actively and adaptively planning for a wide range of likely climate scenarios.

Most material climate-related risks

Climate risks and opportunities are assessed using our planning horizons set on page 33. As our assets can, typically, have very long useful lifespans, our long-term horizons look further into the future than other organisations. Our specific assessment of climate risks is described in our adaptation progress reports, the latest of which is our 2021 Planning for Climate Change. Each climate risk is rated out of five for likelihood and for impact using our six capital value framework. The product of these ratings is a risk score out of 25. The table below summarises our most material, highest scoring risks (at April 2024) for each climate trend and also shows how scores are expected to change over the medium and long term.

Many of our highest scoring risks are acute and chronic physical risks associated with changing rainfall patterns and volumes. We are already experiencing increasingly frequent high volume rainfall events, which in turn exacerbate existing challenges such as sewer flooding, asset flooding and asset deterioration. This is why resilience and adaptation to climate change are material themes (see page 29) and why five of our top ten business risks are noted as vulnerable to climate change.

TCFD risk category

- A** Acute physical risks
- C** Chronic physical risks
- T** Transitional risks

Climate trend	Leading to	Horizon			Resulting in...
		ST	MT	LT	
A Rain – short duration and high volume	Sewer capacity exceeded	●	●	●	Sewer flooding, pollution incidents, customer impact
	Flooded assets	●	●	●	Asset damage and service disruption
	Floods, accidents and landslips	●	●	●	Disruption to transport and supply lines
	More spills from storm overflows	●	●	●	Pollution and perception of pollution of rivers and bathing waters
	Wastewater treatment capacity exceeded	●	●	●	Operating beyond effective parameters and permits
	More runoff from agricultural land	●	●	●	Raised nutrient loads in water sources
	Increased volumes of calls reporting bursts and service disruption	●	●	●	Pressure on our emergency response
A Storm events	Damage to infrastructure and access blocked	○	●	●	Issues for deliveries, maintenance and inspections
	Reduced effectiveness of biological processes	○	●	●	Ineffective wastewater treatment casing pollution
A Cold	Temperature inversions in reservoirs	○	●	●	Odour and taste changes
C Lower average rainfall	Reducing water resources	●	●	●	Supply interruptions and more supply restrictions
	Drying vegetation meaning more severe and frequent moorland/forestry fires	●	●	●	Loss or devaluation of assets and impact to catchment health, risking raw water quality
	Blockages in the sewage system due to low flows	●	●	●	Sewer flooding and pollution at next significant rainfall
	Highly concentrated shock loads when it next rains	●	●	●	Inadequate treatment and potential pollution events
C Warmer temperatures	More days of algal growth in reservoirs	●	●	●	Raw water deterioration impacting water treatment
	More tourists in region and more use of United Utilities' land	●	●	●	Temporary population causing localised supply/demand issues and more damage to land and catchments
C Rain-prolonged	Sodden agricultural land	●	●	●	Adverse effect on supply and demand for recycling biosolids to land
	Increased use of rising mains (pumping)	●	●	●	Accelerated asset deterioration and consequent failures
C Rising sea level	Coastal tidal flooding	○	●	●	Problems with coastal discharges and asset failures
C Changing seasonality	Wet/dry cycles increasing soil movement causing pipe systems to move	●	●	●	Accelerated asset deterioration, leading to more fractures and consequential service disruption
	Increased liability risk from more flooding due to high rainfall and damage from wet/dry cycles	●	●	●	Increased insurance premiums
T Changing expectations	Higher climate change mitigation expectations	●	●	●	Demand for transition planning activities
T Technology	Decarbonisation of the UK electricity grid	○	●	●	Unstable grid more commonplace
T Policy and legal	Legislation, taxation, standard practice and decarbonisation targets	○	●	●	Drive to invest in new assets, infrastructure and training and also higher energy costs and greater regulatory duties
T Market	Increased abstraction by other catchment users e.g. for agriculture and horticulture	○	○	○	Pressure on water resources

Key: Risk scores at 2025, 2030 and 2050 ○ Low risk: score less than 10 ● Medium risk: score 10 to 12 ● High risk: score greater than 12

Impacts of climate-related risks

The chart below shows the current profile of the 72 climate-related risks at April 2024. As weather directly and indirectly constrains our ability to deliver our services it is not surprising that the vast majority (90 per cent) of our climate-related risks are physical risks. Some risks impact single business areas, others are business wide and we also have risks from interdependencies with other parties across the North West.

Urban rainfall in the North West is already 40 per cent higher than the industry average, which means more rainwater needs draining compared to other areas. Increasing rainfall with climate change, together with our higher proportion of combined sewers, (54 per cent of our sewers compared to 33 per cent across England) will put more pressure on our network and treatment infrastructure and result in greater risks of sewer flooding and storm overflows.

We manage 162 water reservoirs in the UK with around 93 per cent of our water sourced from surface water – lakes, reservoirs and rivers, rather than groundwater or aquifers. This means changing rainfall patterns also have a significant impact on our water operations. Projected warmer and drier weather will result in lower summer reservoir levels and greater drought risk, while higher frequency of short intense storms forecasted will increase soil erosion and movements in turn deteriorate or contaminate potable water sources.

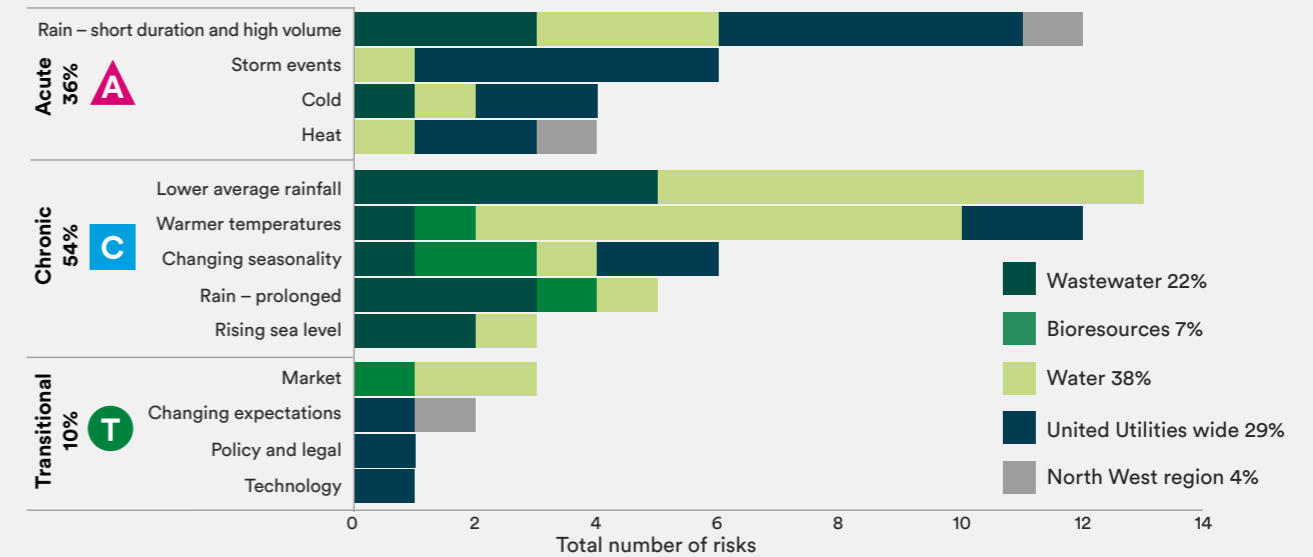
The physical impacts of the climate risks have been quantified using predictions of weather metrics like wind, temperature, and rainfall from the highly respected and relevant Met Office UK Climate Projections 2018 (UKCP18). These projections are categorised by a Representative Concentration Pathways (RCP) with each RCP associated with a predicted level of future greenhouse gases relative to pre-industrial levels. Our third climate

change risk assessment used the Met Office climate projections at a regional level for the representative concentration pathway, RCP 6.0, which has an emissions peak occurring in 2080 and an expected 3.0–3.5°C increase in global mean temperatures from pre-industrial levels. We chose this as it is widely recognised to be the most likely pathway that supports effective planning. Our future assessments will use RCP 2.6 and RCP 8.5 to understand a wider range of outcomes and will further differentiate at a sub-regional county level to recognise the differences in both weather and impact with geography. For instance, a drought in Cumbria is a more material risk to our operations than one in Manchester. This development will enable us to develop more local asset-specific response plans.

To convert GHG emissions into financial impacts, such as to quantify the impacts of the transitional risks, we have used the carbon values for use in policy appraisal, (£ per tCO₂e) of the relevant time period, provided by the UK Government.

Climate-related risks by climate trend and impacted business area/location

Climate trends are grouped by TCFD risk category. Percentages are out of 72 risks in the climate risk register at April 2024.



Including the climate change impacts in our strategies

Predicting the effects of climate change is multifaceted and complex. There is considerable uncertainty about how our processes, people and infrastructure will respond to the challenges of both climate and demographic changes.

Our public Water Resources Management Plan (WRMP), Water Quality Plan (WQP) and Drainage and Wastewater Management Plan (DWMP) are examples of where we use advanced modelling with climate change scenarios to shape our financial plans for the long term, while

staying aligned with our short-term needs. In these plans we describe how we have used sophisticated models to predict and test how resilient our services would be against potential future demands including population growth and movement, economic trends and patterns of water use.

It is becoming increasingly vital in climate change adaptation planning to test scenarios with compound physical impacts. This is when multiple extreme weather events occur in a short time frame. We stress test our plans by building weather scenarios that combine together

worst examples of weather that we have experienced. An example of this is how our assets and systems would cope with consecutive hot dry summers like 2020 and 2021 with a dry winter like 1984 in between.

We also try to model compound benefits where a single intervention might have multiple benefits. For instance, sustainable drainage systems (SuDS) slow down or divert rainwater runoff, which optimises use of wastewater treatment capacity and also provides an opportunity to deliver wider social value in the community and local environment.

Greener: climate

Climate strategy: How climate-related risks and opportunities impact the organisation's businesses, strategy and financial planning continued

Building resilience through adaptive planning

In developing our long-term strategic and financial plans, and seeking customer feedback on those proposals, we have used various scenarios encompassing wide ranges of environmental, regulatory, technological and societal possibilities.

In the last year we have built on our track record of effective long-term planning and combined those plans with our approach to asset management, which has been certified to ISO55001:2014, into an iterative, adaptive approach; our long-term delivery strategy (LTDS). An adaptive approach, using scenario analysis, means our LTDS prioritises problems with evidence of impact, such as the most material climate risks, while monitoring remaining uncertainties. This means we can choose the appropriate timing and approach for investment as climate science and technology advances, as legislation develops and as our customer and stakeholder expectations evolve. This approach helped us to build an investment plan with a low and no regrets approach in the core pathway for

each area, while retaining flexibility, where there is uncertainty, via the alternative pathways. See example below.

Climate change presents a systemic and often compounding risk throughout our operations and services, with varying vulnerabilities dependent on the geographies and asset mix. We have assessed our operational resilience across a range of credible climate change scenarios; benign (low) aligned to RCP 2.6, adverse (high) aligned to the RCP 8.5 and where helpful a central pathway aligned to RCP 6.0. It has become apparent that RCP 2.6 (well below 2°C of warming) is no longer credible and that planning for this pathway would likely see the UK water sector ill-prepared for the future. It is important we plan for a plausible future, therefore, we have chosen the central RCP 6.0 projections for our core pathway investment plans to balance cost efficiency and physical resilience.

As well as considering physical risk scenarios, we have assessed potential impacts on our GHG emissions from our water, wastewater and bioresources core and adaptive plans. We have prioritised

water efficiency in our plans so that we can extend services to meet the needs of the growing population, while minimising pressure on water sources and investments and protecting rivers over the medium and long term. These priorities pose substantial growth pressures in both embodied and operational emissions. Our plan strives to keep us on track to achieve our near-term targets, but to maintain a science-based trajectory to net zero 2050 will need transformational innovation and investment for GHG emissions reduction as a primary driver, and also the full valuation of GHG emissions throughout national policy frameworks.

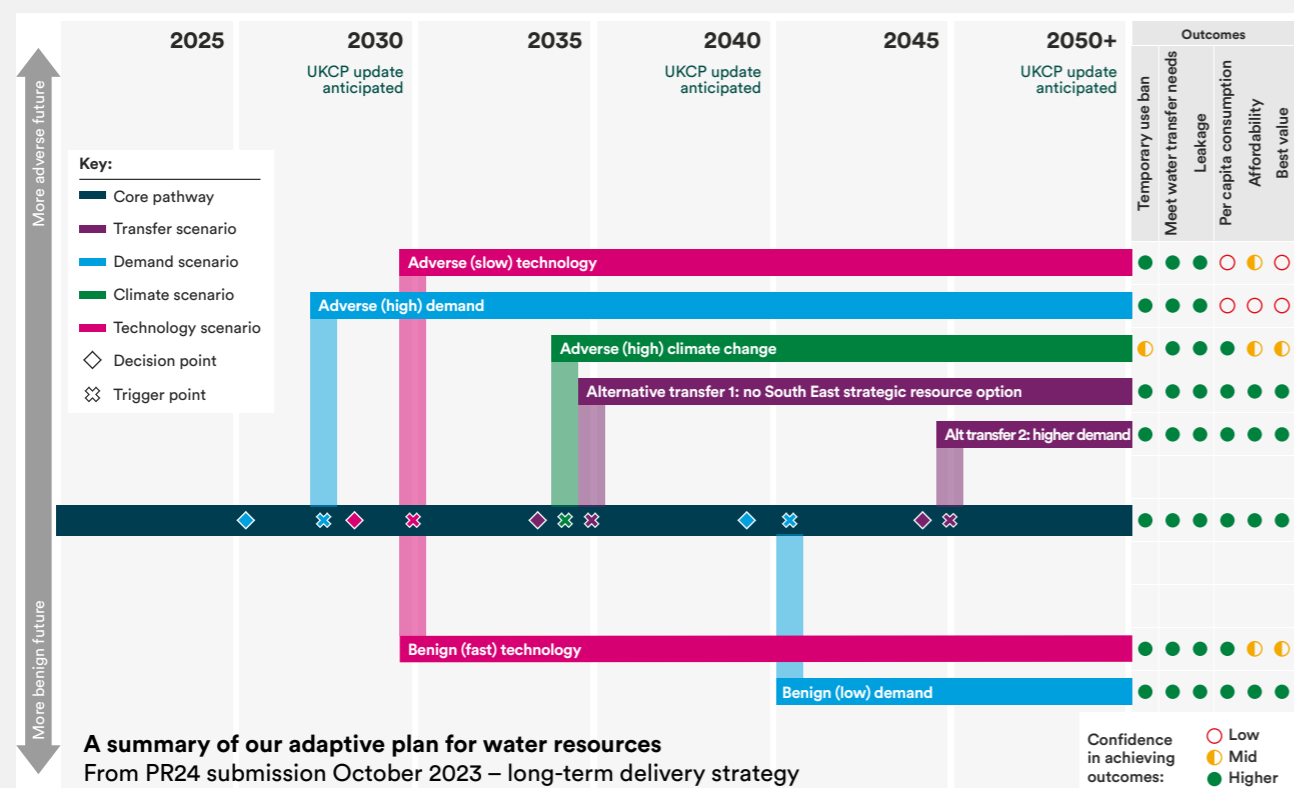
Read our three adaptation progress reports on our website at unitedutilities.com/corporate/responsibility/environment/climate-change

Read our long-term delivery strategy and our approach to operational resilience and asset health at unitedutilities.com/corporate/about-us/our-future-plans

Read our **net zero transition plan** on pages 37 to 39

An adaptive plan example with core and alternative pathways

We have developed strategic adaptive plans for water, wastewater and bioresources operations and tested each of these plans against multiple scenarios. We used scenarios for climate change, demand, reduced abstraction, technology, water transfers and changing expectations. Each adaptive plan, therefore, has one core pathway and alternative pathways, defined by decision or trigger points where alternative investment/development paths diverge. The confidence in achieving key outcomes is estimated for each pathway.



Greener: climate

Our net zero transition plan

Our transition plan to contribute to, and prepare for, a rapid global transition towards a low-emission economy is based on our established climate change mitigation strategy. This has four components: vision and visibility; ambition and commitment; demonstrating action; and beyond here and now. Between them, these define our principles, priorities and implementation approach.

Vision and visibility
Demonstrating integrity and leadership in carbon reporting and disclosure.

Vision and visibility are the foundations of our climate change mitigation strategy and thus our net zero transition plan. We are dedicated to understanding how every aspect of our operations contributes to our emissions. Our aspiration is to ensure we consider the climate in all operational and strategic decision-making, influencing strategy and behaviours by including emissions management in remuneration schemes and including government carbon values into our best value framework used for decision-making.

We are committed to reporting in an open and transparent way, aiming to be recognised as among the best in the UK. We have a strong track record of sustainability reporting, having disclosed our verified GHG emissions since 2008. We publish our GHG emissions and underlying energy use in our annual report as required under the Companies Act 2006 and follow the 2019 UK Government Environmental Reporting Guidelines: including streamlined energy and carbon reporting guidance. Our reporting is supported by robust governance and accountability mechanisms. Our greenhouse gas inventory has undergone independent, third-party verification by Achilles Group, confirming our reporting is compliant with the international carbon reporting standard (ISO 14064) and certified as compliant with the CarbonReduce programme.

We have responded to the CDP climate change questionnaire since 2010 and use this as our benchmark of leadership. We were proud that our 2023 response was rated as A-, maintaining our position in the leadership category.

Ambition and commitment
Playing our part to mitigate climate change and lower our greenhouse gas emissions to help make the North West a better place to live now and in the future. An important element of our approach is to demonstrate our ambition and encourage others to contribute by making public commitments.

In 2020 we made six carbon pledges and we are making good progress to deliver these. See page 74 for more details. Central to our pledges was to set science-based targets for all emission scopes. United Utilities is proud to be the first UK water company to have had near-term targets approved by the Science Based Targets initiative (SBTi), a collaboration that defines and promotes

global best practice in science-based target setting. Our four targets cover all three emission scopes and the scope 1 and 2 emissions reduction target is consistent with the 1.5° ambition of the Paris Agreement. We plan to review, and if needed, revise our near-term science-based targets as per SBTi guidance and in line with our next business planning period.

The SBTi Corporate Net-Zero Standard was launched in late 2021 and reinforcing our support to the Business Ambition for 1.5°C campaign, we submitted our long-term target and commitment to net zero for validation in January 2024.

Demonstrating action
Reducing our environmental impacts through delivery of transformational strategies and culture change.

Our action plan to achieve the long-term ambition of net zero by 2050 (in line with climate science and the UK Government targets) is set out on the next page. We are already working on, and delivering on, actions in all themes to:

- Reduce** through the efficient use of resources;
- Replace** processes and resources with more sustainable alternatives;
- Remove** GHGs from the atmosphere;
- Collaborate** to tackle emissions in the supply chain; and
- Innovate** to address current technological or market gaps.

Our priority in the medium term will be to reduce our absolute emissions through these actions before we use carbon units or purchase any credits to offset the residual emissions to net zero.

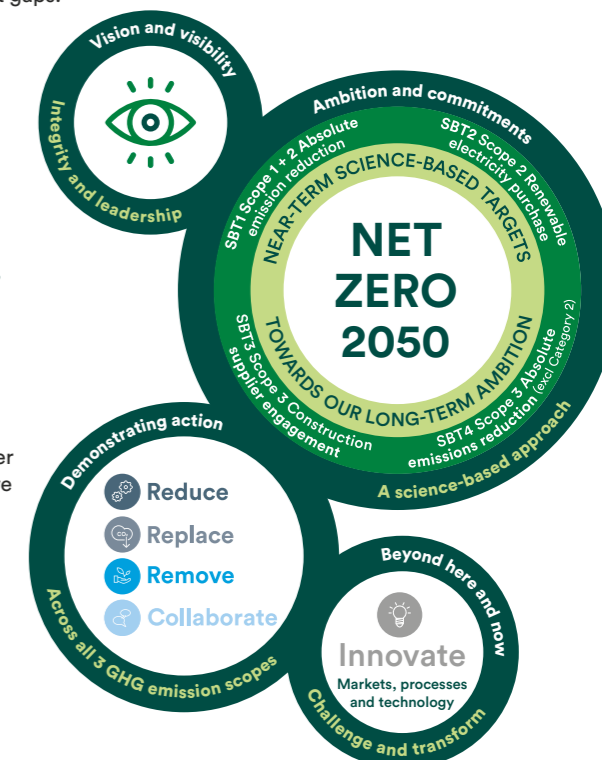
Beyond here and now
Innovating across processes, technology and culture. Our strategy pillar of 'beyond here and now' encourages us to reflect on the challenge to influence emissions beyond our current inventory and existing capabilities. To deliver our net zero transition plan we will challenge standards and engage with industry peers, our supply chain, and other partners to develop markets, technologies and practices to reduce or mitigate future emissions.

We co-chair the Water UK carbon network and are part of a team who lead net zero research across the industry, for instance exploring and testing what operational interventions can be made to reduce process emissions. We have also facilitated a water industry task and finish project to understand and quantify the GHG emissions related to chemicals use.

An example of working with our supply chain is our Innovation Lab, which is an annual 14-week programme that provides successful applicants opportunities to test their solutions to our business challenges. The programme is designed to 'look for ideas where others aren't looking' – in other sectors, other countries and with suppliers that are often small, start-up businesses, just starting on their idea development or business growth journey. Our most recent programme included teams developing technology to capture methane and testing sustainable concrete incorporating graphene.

A further example of evolving our practice and delivering outcomes in partnership is our procurement for AMP8 programme partners. All the tenders have included assessment of suppliers' measurement, management and reduction of GHG emissions and have favoured those with a robust and science-based approach.

Read more about how we are using innovation to tackle the sustainability challenges, at unitedutilities.com/corporate/about-us/innovation





Greener:
nature

How nature influences our approach

TNFD strategy disclosures

- a) The most material nature-related dependencies, impacts, risks and opportunities are listed below.
- b) The effects of our direct operations on nature are broad and complex, we continue to invest to protect the environment.
- c) Our long-term adaptive plans support investment in the resilience of the ecosystems we depend on.
- d) We consider nature-related matters at our priority locations and sites under designation.

Impacts and dependencies

Protecting and enhancing the natural environment is at the heart of our purpose and strategy. Providing great water for a greener North West means we protect and enhance the natural environment and adapt to the challenges of climate change, allowing people, wildlife and nature to thrive. Our strategic priorities to 'create a greener future' and 'improve our rivers' drive us to go above and beyond our regulatory requirements to maximise value for the environment. We aim to protect and enhance the natural environment by

investing in our assets, driving performance improvements, adopting best asset management practices, and investing in nature-based solutions. Our environmental policy is underpinned by a framework of strategies and long-term plans in response to nature-related risks and opportunities. We are highly dependent on nature, with potential for material positive and negative impacts. The table below highlights some of the most material ways we rely and impact on nature. We manage these impacts and dependencies by creating long-term adaptive plans that

support investment in the resilience of the ecosystems we depend on. Through adaptive planning, horizon scanning and natural capital accounting, we have identified the most material nature-related impacts and dependencies in our direct operations, upstream and downstream from our value chains. Our impact and dependency pathways are reflected on pages 22 to 23, where we describe how we manage natural capital and the water cycle from collection and treatment of freshwater through to removal, cleaning, and returning used water to nature.

Biome	We depend/rely on it	We can impact on it
Freshwater	<ul style="list-style-type: none"> To source clean water from reservoirs, rivers, and boreholes, from which abstraction licences permit us to take water to be treated and supplied to customers. To receive cleaned wastewater back into the environment. 	<ul style="list-style-type: none"> By improving the condition of rivers and water bodies. Through our abstractions, final effluent quality, overflows, pollution incidents, and asset failure. By cleaning our waterways through our River Rangers and volunteer activities.
Land	<ul style="list-style-type: none"> To store and clean sources of water. To recycle biosolids, to site engineered or nature-based interventions, and to attenuate water flows. To provide resources, such as chemicals, cement, metals and energy. 	<ul style="list-style-type: none"> By improving the condition of the land we are stewards of, including improving habitat health and biodiversity. By storing greenhouse gases (GHGs) in our land, e.g. soils, peatland, and woodland.
Atmosphere	<ul style="list-style-type: none"> To provide a healthy and safe work environment. For temperature regulation. To reduce our fossil fuel consumption through wind power. 	<ul style="list-style-type: none"> By releasing GHG emissions, and other atmospheric pollutants, thereby contributing to climate change and impacting the health of people and nature.

Natural capital and biodiversity

Our interface with sensitive and priority locations

Natural capital has been a key element in our strategy and decision-making, from developing our 'enhancing natural capital value for customers' performance commitment in AMP7 to our approach to value-based decision-making in our AMP8 business plan, incorporating environmental metrics. In 2023, we completed our second corporate natural capital account to assess and value the benefits of our land holdings. Much of the land that we own is designated as Sites of Special Scientific Interest (SSSIs), which indicates the importance of the habitat for biodiversity. 91 per cent of SSSIs on our land now meet 'favourable' or 'unfavourable (recovering condition)' status, in part because we pioneered the use of nature-based solutions to address raw water quality when we started our sustainable catchment management programme (SCaMP) in 2005. We recognise our role as stewards of our land and make decisions based on the benefits and impacts our operations have on the natural environment and the value we can create for customers, society and the environment.

Our corporate natural capital account highlighted the importance of understanding our relationship with nature. For example, the land we own provides significant benefit to communities by providing natural open spaces for access and recreation, valued at £2.3 billion modelled over 60 years. Over 83 per cent of our land is within our water catchments and over 75 per cent of our land is under a form of statutory designation. The next step in monitoring and reviewing our relationship with nature is to determine the natural capital risk and impact our operations have on land we own. As part of our land review process, we are looking at the total value each parcel of our land provides for us, customers and the wider population of the North West, helping us better prioritise our future investment.

Our land under statutory designations

Sites of Special Scientific Interest	22,500ha
Area of RAMSAR	1ha
Special Area of Conservation	11,000ha
Special Protected Area for Birds	14,000ha
Area within National Parks	26,000ha
Area of Outstanding Natural Beauty	11,000ha

Opportunities for nature improvement

Storm overflows and river water quality

In our AMP8 business plan we are proposing to invest £3.1 billion to reduce spills from more than 400 overflows, and protect and enhance over 500 kilometres of rivers, proposing to spend more than £900 million to reduce nutrients in final effluent. To maximise the societal benefits of the storm overflow discharge reduction plan, we have proposed to accelerate the delivery of the rainwater management element to maximise value for society and the environment. Taking advantage of the adaptive approach to the long-term targets, we are prioritising addressing overflows with proven harm, either through integrated catchment modelling or ecological surveys, to maximise benefits to customers and the environment.

Water resources and leakage

Our water resources and leakage long-term plans are set out in our Water Resources Management Plan (WRMP24). This plan sets out our approach to supply, demand, and drought scenario planning, ensuring long-term resilience of water supplies for the North West. Our plans to reduce demand, through reducing leaks

and promoting more efficient use of water supported by smart metering, will allow us to halve the likelihood of a temporary use ban. Our demand reduction options detail our plans to achieve our long-term commitment of reducing leakage by 50 per cent by 2050, relative to the 2017/18 baseline.

Place based planning

Our place-based planning approach enables us and our partners to align and join up projects with the aim of unlocking shared funding and resources to deliver multiple environmental improvements across the region. It helps us to identify catchment and nature-based solutions and allows us to engage with potential partners much earlier to increase the likelihood of accessing co-funding and investment.

Upstream

We collaborate with our supply chain through our United Supply Chain approach, underpinned by our responsible sourcing principles (RSP) which set out our ambitions across a range of environmental, social and governance matters. As a signatory to our RSP, suppliers commit to developing their own supply chain by sharing resources, training, and upskilling their colleagues, whilst working with United Utilities to assure this approach by identifying and mitigating risk. As a leader against our RSP, suppliers commit to go further by demonstrating their commitment to the principles, collaborating with us in improving practice and identifying new ways of working to enhance the value delivered to customers.

Downstream

We have many schemes and strategies in place to support customers in considering their water use at home or at work, helping to reduce the demand for abstraction. Our 'what not to flush' campaigns support the reduction in blockages in sewers. They provide information illustrating how pouring fats, oils and grease down the sink and flushing wet wipes, period products or other bathroom rubbish down the toilet can lead to damage not only to customers' homes but also to the environment. A build-up of flushed products and fats, oils and grease can create fatbergs, which restrict the flow of wastewater through the sewer network and reduce the capacity of the sewers. This can lead to an increased risk of spills from storm overflows and the potential to cause pollution.

Biome	Material risks	Risk key: ▲ Physical Acute C Physical Chronic T Transitional
Physical		
Freshwater	<ul style="list-style-type: none"> Lack of ecosystem resilience, leading to damage to assets and infrastructure from adverse climate-related events. Reduced raw water quality, leading to increased treatment burden. Runoff from agriculture, leading to increased difficulty of meeting river water quality targets. Reduced raw water availability, leading to more frequent drought risk. 	▲ C
Land	<ul style="list-style-type: none"> Fire events in the catchment, leading to catastrophic impact on peatlands and water quality. Reduced natural flood management, leading to more engineered interventions or more instances of flooding. Increase in invasive non-native species, leading to reduced ecosystem resilience and impact on water treatment and flood management. Landscape change, leading to reduced ecosystem resilience and impact on water treatment and flood management. Increased risk of landslides, leading to disruption at our operational sites. 	▲ C
Atmosphere	<ul style="list-style-type: none"> Reduced air quality ecosystem regulation, leading to worse impacts on customers, colleagues and society from our operations. Reduced wind ecosystem regulation, leading to physical impacts at our sites or infrastructure. 	C
Transitional T		
<ul style="list-style-type: none"> Increasing pace of change towards a nature-positive economy, leading to difficulty in attracting finance. Evolving expectations and requirements on reporting, leading to additional resources needed. Existing technology is not fit for requirements or outpaces natural replacement rates, leading to additional investment requirements. 		
Material opportunities		
Sustainable and efficient use of resources	<ul style="list-style-type: none"> Adoption of nature-based solutions such as sustainable drainage systems (SuDS), catchment interventions, and natural flood management. Application of circular economy principles to design out waste, circulate products and materials, and regenerate nature. Prioritisation of a best value approach that maximises value to customers, society and the environment at an efficient cost. Transition to processes with lower negative impacts on nature and/or increased positive impacts on nature, including reducing resource extraction. 	
Markets	<ul style="list-style-type: none"> Delivery of broader impacts through partnership working and collaborative approaches, such as the Integrated Water Management Plan in Greater Manchester, as discussed on page 86. Access to new and emerging markets, such as renewables and carbon/biodiversity markets. 	
Capital flow and financing	<ul style="list-style-type: none"> Access to nature-related green funds, bonds or loans, for example through our sustainable finance framework. Use of financial incentives for suppliers to improve nature and ecosystem management. Improved performance against regulatory objectives. 	
Social capital and trust	<ul style="list-style-type: none"> Collaborative engagement with stakeholders. Actions that create positive changes in sentiment towards United Utilities due to impacts on environmental assets and ecosystem services that have impacts on society. 	
Ecosystem protection, restoration, and regeneration	<ul style="list-style-type: none"> Direct and indirect restoration, conservation or protection of ecosystems or habitats. For example, improving peatland, woodland and other SSSIs. Protection and conservation of native threatened species and management of invasive non-native species. Investment in blue-green and traditional infrastructure for nature-positive outcomes. 	

S172(1) Statement continued

Five counties model continued

such as the Lake District, designated as a UNESCO World Heritage Site in 2023, and Blackpool. Along our region's coastline we have 29 designated coastal bathing waters, and 26 designated shellfish waters. The North West marine plan areas are of particular importance to numerous bird species, including Liverpool Bay, which is designated as a marine special protection area. Population growth and the associated development of new or extended urban areas means water efficiency and rainwater management are key priorities during AMP8 and the longer term. The board believes the county approach to deliver our plan would be most likely to promote the long-term success of the company for the benefit of its members as a whole.

Clean energy and renewables

Link to strategy



The decision

The board endorsed the aspirations of the group's clean energy strategy focusing on bioenergy, renewable energy generation – the majority of the opportunities identified being 'front of meter' schemes selling power back to the grid, and battery storage facilities.

How we engaged with stakeholders

Feedback from investors and analysts towards investment in clean energy opportunities continues to be supportive, using funds from shareholders and so outside of the regulated business. We are participating in a pioneering carbon-capture facility, funded by the Department for Energy Security and Net Zero through their Direct Air Capture and Greenhouse Gas Removal Innovation Programme, which will be constructed on our head office site at Warrington. Once the facility's carbon-capture capabilities are proven, the heat and power generated by the process could be redirected to heat our on-site buildings as part of our long-term decarbonisation of the site.

The disposal of United Utilities Renewable Energy Limited (completed in September 2022) provided capital to invest in non-regulated activities and we know that our customers are supportive of our net zero ambitions, particularly when the costs are not impacting customer bills.

The board's view

United Utilities uses around 800GWh each year of electricity – costing in the region of £164 million during 2023/24 and with usage forecast to increase, we need to

take every opportunity to minimise our electricity usage as well as de-risk our susceptibility to energy price volatility.

The clean energy generation opportunities identified to date are predominantly solar arrays. Approximately 1,000 hectares of the company's land assets across 142 locations are considered to be potentially suitable for development in this way. In generating clean energy and using battery storage facilities we will be improving our resilience and energy security and provide mitigation for energy usage/price volatility. We are particularly mindful of the potential human rights/forced labour supply chain risk in the manufacture of solar panels and batteries, including the component parts and minerals used in battery manufacture. Mitigation of this risk will be managed through the human rights and modern slavery working group and our United Supply Chain approach.

The board believes our approach to clean energy will contribute toward the achievement of our net zero ambitions and our strategy to create a greener future for the North West and would be most likely to promote the long-term success of the company for the benefit of its members as a whole.

Greener: climate

Governance around climate-related risks and opportunities

TCFD governance disclosures

a) The board and its committees, in particular the ESG committee, have oversight and scrutiny of climate change matters, including tracking delivery of our carbon pledges, science-based targets, and review of the climate-related risks.

b) Climate-related governance is fully integrated in the responsibilities of multiple principal management committees including the ESG leadership group, climate change mitigation steering group and sustainable finance committee.

➔ Where climate-related matters are considered within our governance structure for the board and the principal committees is illustrated on page 106

Board oversight of climate-related risks and opportunities

The climate and natural environment are critical to our purpose to provide great water, which is why climate change mitigation and adaptation are both identified as material themes and monitoring of climate-related matters is a core activity of our board and the principal committees.

The board of directors sets, reviews and guides the strategy of the group ensuring the long-term success of United Utilities for customers, investors and wider stakeholders. The board approves the

business plan, annual budgets and group policies. The impact of climate change on the assets and liabilities of the group are described within the accounting policy notes to the financial statements, see page 188. Climate-related issues feature strongly in our environment policy and in turn directly influence our value-based decision-making. This enables us to plan and deliver investments that represent best value for the environment and communities.

Our CEO, Louise Beardmore, has accountability to the board for climate matters. Louise is an active and vocal champion with respect to environmental topics and initiatives and she passionately

promotes the need for both pace and scale of action to adapt and mitigate climate change.

Climate-related matters have been discussed by multiple board level committees this year including each of the four ESG committee meetings when topics included our carbon pledges, our emerging clean energy strategy and scope 3 emissions. The ESG committee, via the ESG leadership group, also reviewed the sustainability capabilities required by our board and executive management team. This resulted in relevant training being completed and chapter zero membership for our asset management director and head of ESG and sustainability. Our newly

appointed non-executive director, Michael Lewis, comes with a wealth of zero carbon energy and sustainability experience, which will be applied to our business.

The audit committee considered climate in its reviews of the group risk profile, including those sensitive to climate and the carbon commitments risk, and also in relation to the introduction of the integrated risk reviews. The remuneration committee has continued to endorse the link between long-term incentive outcomes and the delivery of GHG emissions reductions by including a new metric related to energy use from low-carbon generation.

Management role

Climate and the environment are valued highly by the business, evident by most committees contributing to 'create a greener future'. Climate-related matters, therefore, influence both day-to-day and strategic decision-making and behaviours. For instance, this year, there have been actions to drive efficiency and process excellence, develop a clean energy and renewables strategy and include climate-related criteria into supplier selection.

Our CEO demonstrates her accountability for the group's preparedness for adapting to climate change and driving our mitigation strategy through chairing all relevant management committees.

Our CFO, Phil Aspin, has executive responsibility for risk management and has made climate change and ESG core to the business culture. The executive management team, through its groups and committees, is tasked with assessing and managing the climate-related risks and mitigating actions, such as ensuring the company has the necessary financial resources and skilled people in place.

➔ The business risks that are sensitive to climate change are set out on page 57

➔ Read more about our committees including how often they meet and their ESG skills on pages 106, 108 and 115

Greener: nature

Governance around nature-related dependencies, impacts, risks and opportunities

TNFD governance disclosures

a) Nature is embedded in our governance structure and regulatory commitments. This is overseen and challenged by the board and its committees.

b) Interactions with nature through our operations are managed in multiple principal management committees across the business.

c) Our human rights policy ensures a safe and great place to work, we actively work with our supply chain through our responsible sourcing principles.

As with climate-related matters, our CEO has overall accountability for nature-related matters with tracking, monitoring and management of impacts and dependencies on nature spread across many of our principal management committees. For instance, the executive team is responsible for regulatory performance that relates to nature, the ESG leadership team is responsible for matters such as natural capital, land management and biodiversity, and the political and regulatory group is responsible for monitoring existing and emerging legislation on nature.

Natural capital and biodiversity

Natural capital and biodiversity matters are primarily managed by the ESG leadership group, with risks identified through natural capital accounting, climate adaptation planning, and our natural capital risk assessment process. Identified risks and opportunities are fed into our corporate risk register and overseen, and escalated as necessary, by the executive team.

Our performance and progress in priority locations, such as delivery of the WINEP, wider improvement in wastewater treatment, catchment management, our progress towards 100 per cent of Sites of Special Scientific Interest (SSSIs) having favourable or recovering status, peatland restoration, woodland planting, and our operational environmental performance, are shared monthly with the executive team.

Storm overflows and river water quality

We have recently appointed a dedicated director to manage the end-to-end process of our Better Rivers programme to improve river water quality and reduce storm overflow operation. The Better Rivers programme is overseen by the executive team, with regular updates and challenge from the board and its committees. Our Better Rivers commitments and spill reduction target feature prominently in the annual bonus scheme.

Approach to human rights

Our CEO has overall responsibility for compliance with human rights and modern slavery laws and best practice, with oversight from the board. The political and regulatory group and the ESG leadership team both have human rights and modern slavery within their remit. Ensuring that United Utilities is a safe and great place to work is one of our six strategic priorities, which reinforces the importance of human rights for colleagues in the business and supply chain.

Another of our strategic priorities is to 'contribute to our communities', supporting us to build the needs of local communities into our strategies and plans. We are committed to tackling modern slavery, both in terms of our own business operations and in our supply chain. Last year, we completed 34 site audits with modern slavery due diligence checks on our construction partner sites. All roles

identified as relevant must complete our modern slavery e-learning course, focusing on customer and community-facing roles to raise awareness of potential modern slavery risks.

As a UK utility company operating with a principal footprint in the North West, our use of stringent employment checks means it is highly unlikely that modern slavery or human trafficking has occurred within the local area as a result of our operations, or as a secondary consequence of our actions.

As part of our United Supply Chain (USC) approach, our responsible sourcing principles are structured around ESG issues that are important to us as a business and in our approach to responsible sourcing. Considerations on modern slavery are incorporated into the wider issues of human rights and fair treatment, specifically: 'Treat people with dignity and respect, whilst working to eradicate modern slavery in all its forms'. We are aiming to ensure that 100 per cent of targeted suppliers will be signed up to our responsible sourcing principles by 2025.

➔ Our supply chain modern slavery risk assessment is available on our website at [unitedutilities.com/corporate/responsibility/our-approach/human-rights/modern-slavery-policy](https://www.unitedutilities.com/corporate/responsibility/our-approach/human-rights/modern-slavery-policy)

➔ See how nature-related matters are considered within our governance structure on page 44

TCFD risk management disclosures

- a) The company operates a mature risk and resilience framework for the identification, assessment and management of all risks including the threats and variability associated with climate change. We also assess all corporate risks for their sensitivity to climate, see page 57.
- b) We manage both physical and transitional climate-related risks in our corporate business risk profile, including five of our ten most significant event-based risks, see pages 55 to 56.
- c) Climate change is fully integrated across our overall risk management system with climate change adaptation and mitigation each identified as material themes (see page 57) and extreme weather/climate change noted as a common causal theme of event-based risks.

Climate risk identification and assessment

Our framework for the identification, assessment and management of risks is described on pages 51 to 53. As our services are intrinsically linked to the natural environment many of our business risks could be also considered climate risks. These may be physical risks that impact our operations, assets or resources, or transitional risks associated with the transition to a low-carbon economy, such as evolving policies, regulation and legislation.

We use a variety of approaches to identify and evaluate risks, and tools such as PESTLE, to ensure coverage of the main external influencing factors. When assessing climate-related risks, or the climate sensitivity of business risks, we use complex and detailed models to understand the financial and non-financial impacts forecasted weather patterns will have on water resources, water quality and drainage and wastewater management. In our quantification of risk impacts we recognise that some risk events may happen multiple times so we compare impacts over a long-term, typically 40-year, horizon. This incorporates where interdependencies between climate change and other demographic changes influence the frequency of events as well as the consequences.

Following recognition of climate change as a material issue, a special review of all risks in our business risk profile was carried out in 2020 to ascertain, and publish in annual reports, the risks in our business risk profile that are sensitive to climate change. Understanding longer-term impacts raised the profile of climate change, which enabled the board to consider our appetite and tolerance, choosing to mitigate and control the risks from within existing risk management processes and with the same thresholds for materiality.

Change in likelihood and impacts at 2050 and 2100 were individually estimated for all risks in the group risk profile by applying the Met Office climate projections for RCP 6.0, in which

emissions peak around 2080 and average temperatures will have risen to between 3–3.5°C by 2100. Climate sensitive risks were defined as those that their likelihood and/or impact would increase with climate change. For example, where the current risk assessment estimates one weather event every five years but the climate projections predict that this event is likely to happen twice every five years.

The current list of business risks recognised as sensitive to climate change is outlined on page 57.


As well as assessing the climate sensitivity of business risks during preparation of our adaptation progress reports we have reviewed the organisation's resilience to physical outcomes of climate change, such as hotter, drier summers and the impact of transition to a low-emission economy. This identified over 70 climate-related risks and the current profile of these risks is presented on page 35, segmented by TCFD risk category and where the impact would manifest. The most material of these physical and transitional climate risks for each climate trend are listed in a table on page 34 and describes how different climate trends can lead to a variety of business challenges and result in consequences to customers or the environment.

Managing climate-related risks

A significant challenge to business planning and managing risks is the considerable uncertainty and interdependencies associated with complex issues such as climate change, population growth, technology and changing needs. To address this we are maturing our capabilities in long-term and adaptive planning as discussed on page 36.

Our public Water Resources Management Plan (WRMP) and Drainage and Wastewater Management Plan (DWMP) are examples of where adaptive planning is used to shape our plans for the longer term (25 years and beyond), while staying aligned with our short-term needs. In these plans we describe how we have used complex models to test how resilient our services would be against a wide range

of plausible and extreme future climates alongside alternative demand scenarios defined by different demographics, economic trends and patterns of water use. By recognising the causes and consequences, and quantifying the likelihood and the severity of impact (both financial and non-financial) should the risk event occur, we are able to prioritise climate-related risks and take proactive and early action to manage these risks and adapt our strategies to improve performance and resilience across key topic areas such as water supply, leakage, sewer flooding and pollution.

 Read our adaptation progress report on our website at unitedutilities.com/corporate/responsibility/environment/climate-change

Integration of climate-related risks into our risk management framework

Weather is fundamental to how we deliver water and wastewater services, so climate-related matters are firmly embedded in our overall risk management processes. Climate influences the financial planning across all business horizons and physical and transitional climate risks are considered in the preparation of financial statements – see page 188.

With the exception of the adaptation progress reports, climate-related risks are not differentiated from other risks in any way and are managed in the same way and with the same processes as any other business risk.

By maturing our understanding of risk and uncertainty we are building and maintaining long-term resilience across the corporate, financial and operational structures of the group, including to the challenges of climate change. Our integrated approach together with our multi-capital value framework allows us to also deliver wider environmental and social value in the community and local environment, while managing business risks. For instance, by delivery of green infrastructure solutions to reduce storm overflow spills instead of more traditional built assets.

TNFD risk management disclosures

- a) Nature-related risks are identified through our horizon scanning activities, natural capital accounting, and land management approaches.
- b) We manage identified risks and opportunities in the near term through our business planning process and over the long term through our DWMP and WRMP.
- c) Nature is fully integrated in our risk management processes, with many nature-related material themes (see page 29).

The North West environment

The land across the North West comprises rural, urban, and city locations that include moorland, agricultural, forestry, operational, offices and commercial land, which poses many risks and opportunities for us. The natural hazards of wind, rain and temperature contribute to a change in the state of nature, with climate change likely to increase the frequency and intensity of weather events. There are a range of controls in place to manage identified risks and opportunities on our land, such as our land management strategy and environmental framework.

Identifying, assessing, and managing nature-related risks and opportunities

Nature-related risks (physical or transitional) can be defined as potential threats posed to our business that arise

from our dependencies and impacts on nature, outlined on page 38. Physical risks result from the degradation of nature and consequential loss of ecosystem services, arising as a result of changes in the biotic and abiotic conditions that support healthy, functioning ecosystems. Transitional risks result from a misalignment of economic factors with actions aimed at protecting, restoring and/or reducing negative impacts on nature. These risks can be prompted by changes in regulation and policy, legal precedent, technology, or investor sentiment.

Short-term and medium-term physical risks at specific locations across the North West are captured on an ongoing basis through our internal asset management systems. Our long-term risks are captured and managed as part of our long-term planning activities such as our Drainage and Wastewater Management

Plan (DWMP) and Water Resources Management Plan (WRMP), which look over a 25-year time horizon and are reviewed every five years.

Once our material risks are identified, we evaluate our operational and strategic dependencies and impacts over short-term (one year), medium-term (up to 2030), and long-term (beyond 2030) time horizons. These risks are then monitored through our business risk management processes, as outlined on page 51.

Activities in our supply chain are primarily supported by our responsible sourcing principles, which support our supply chain partners in identifying and managing risks and opportunities relating to the environment. A future focus for our nature-related financial disclosures is to further review our upstream risks and opportunities.

Customer service and operational performance, including drinking water quality

Being so fundamental to our day-to-day service, these themes permeate a variety of our top risks. Several of our inherent risk areas are part of customer service and operational performance, including water service, wastewater service, retail and commercial, and supply chain and programme delivery. Others can also have an impact on our performance, including resources, finance, environmental, security, and political and regulatory.

Seven of our top ten event-based risks are directly linked to these material themes:

- Failure of the Haweswater Aqueduct
- Recycling of biosolids to agriculture
- Wastewater network failure
- Failure to treat sludge
- Cyber
- Failure to meet the totex efficiency challenge
- Water availability

Drinking water quality is particularly impacted by the risks around failure of the Haweswater Aqueduct and water availability.

The outcome of the 2024 price review (our top event-based risk) will also be important in supporting how we manage service opposite these themes in AMP8. High impact but low likelihood risks around dam failure, terrorism, and process safety also have potentially significant impacts on this theme.

Risk management is embedded fully into organisation-wide processes given the fundamental nature of this to everything that we do. Detail on the risk exposure, controls/mitigation, and assurance in relation to each of these top risks can be found on pages 54 to 56.

Affordability and vulnerability

Retail and commercial is one of our inherent risk areas, and this incorporates a number of underpinning event-based risks that sit outside of our top ten. These include customer experience, cash collection, billing accuracy,

and affordability support, which collectively take account of economic conditions including cost-of-living pressures, providing value for money, and supporting our most vulnerable customers. The impact of affordability and vulnerability is also a factor in our top ten event-based risk of failure to meet the totex efficiency challenge.

In order to achieve high levels of performance, our customer experience and debt strategy includes multiple controls, including customer consultation and surveys, affordability schemes, tariff setting policies, and reconciliation processes.

Our AMP8 business plan envisages significant increases in bills to support the investment needed, but we also propose doubling the value of the affordability support schemes we offer for customers struggling to pay their bill, which would see us helping one in six households during the 2025–30 period. The outcome of the 2024 price review (our top event-based risk) will, therefore, have a significant impact on this theme going forward.

Future targets

This page sets out some of the future targets we have set ourselves over the short, medium and long term in relation to the three key elements of our purpose



Greener: climate

Metrics and targets used to assess relevant climate-related risks and opportunities

TCFD metrics and targets disclosures

- a) We track both physical and transitional metrics to assess climate-related risk and opportunities. We also consider some of our environmental KPIs as key to understanding our resilience to climate change and monitor accordingly.
- b) We disclose our GHG emissions and underlying energy use for 2023/24 in our energy and carbon report on pages 75 to 77.
- c) Our key climate-related targets are our six carbon pledges and our four near-term science-based targets. Our progress against them is summarised on page 74. Other climate-related targets and performance against them can be found on page 72.

Our vulnerability to climate-related risks is determined by both the physical and transitional impacts we experience and the control measures we have put in place to manage the risks and realise opportunities.

Metrics to monitor risks

Physical risks

As a water company, weather metrics (and forecasts) are vital inputs into our day-to-day operational planning. Rainfall volume, intensity and location direction impact the demands on water resources, wastewater and bioresources functions. To manage this we track recent and historic patterns of weather and weather events and use the data to continually improve our understanding of how different patterns can affect demand and our ability to deliver our services. We use both short-term forecasts and longer-term projections from the Met Office, and for the long-term plan for up to 4°C change in global temperature.

Transitional risks

We horizon scan for changes relating to transitional risks across technology, policy and legal, markets and expectations of our stakeholders. Topics include looking for technologies to measure and reduce process and fugitive emissions, government policy changes and developments, energy pricing fluctuations (of both fossil fuels and low-carbon alternatives), and the developing market (availability and cost) of alternative fuelled vehicles, batteries.

Carbon pricing is an important topic and we track closely the costs of purchasable credits, offsets and energy attribute certificates. For medium and long-term risk and benefits assessments (such as our AMP8 business plan) we use the UK Government carbon values 'for use in policy appraisal' for the relevant year to convert GHG emissions to a financial value, e.g. £130 per tCO₂e for 2030.

Opportunities

As a regulated business, climate-related opportunities are limited to ways we can avoid costs, rather than generate revenue. For example, our strategy to increase renewable energy generation is primarily focused on reducing costs to buy electricity rather than export more and generate revenue.

→ Read more about [environmental performance and remuneration](#) from page 72

Stock code: UU.

Performance metrics and targets

Environmental KPIs

We manage our climate-related risks by putting in place controls such as those as set out on page 85 to 89 and in Appendix A.3 of the 2021 climate change adaptation report, published on our corporate website. The effectiveness of these controls is seen in our operational performance metrics. The following environmental KPIs are recognised as climate-related performance metrics and are reported on page 72:

- Leakage reduction;
- Per capita consumption;
- Flooding incidents, risk and resilience;
- Storm overflow activations;
- Risk of severe restrictions in a drought;
- Sewer collapses;
- Water service supply and resilience; and
- Low water pressure areas.

Science-based emissions targets

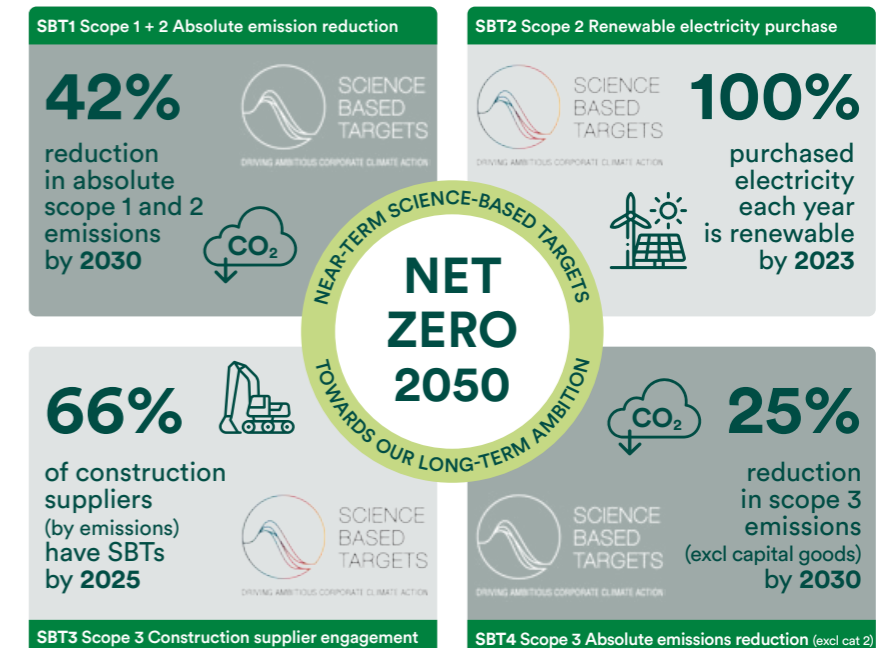
We have a strong track record of playing our part to mitigate climate change and have reduced scope 1 and 2 emissions by over 70 per cent since 2005/06, largely through our substantial investment in renewable power generation and green electricity procurement.

Our ambition and commitments are based on international guidance and climate science and our four near-term science-based targets were verified by the Science Based Targets initiative (SBTi) in July 2021. The SBTi Net Zero Standard was launched in late 2021 and we have submitted our long-term net zero target for validation in January 2024. We plan to review and, if needed, revise our near-term science-based targets in 2025 as per the SBTi guidance and also aligned with the next business planning period.

Performance and remuneration

Climate-related environmental KPIs and targets influence remuneration. Bonuses for all colleagues are linked to the company scorecard (see page 143) and the long-term incentive plans for senior leaders and executive directors, for periods ending 2025 and 2026, include measures directly linked to our carbon pledges and clean energy strategy.

- Read about [progress to deliver our six carbon pledges](#) on page 74
- Read our [energy and carbon report including 2023/24 greenhouse gas emissions](#) on pages 75 to 77
- Read about [reward for environmental related performance](#) on pages 140 to 149



Metrics and targets

Greener:
nature

Metrics and targets used to assess and manage material nature-related dependencies, impacts, risks and opportunities

TNFD metrics and targets disclosures

- a) We disclose below the nature-related metrics currently used to drive internal decision-making.
- b) Many of the short, medium, and long-term nature-related targets align with regulatory expectations.
- c) Performance against our environmental KPIs can be found on page 68, and against other environmental metrics on page 72.

We monitor a wide variety of metrics and set targets to help monitor and assess nature-related risks and opportunities. In our disclosures, we have focused on metrics and targets that we currently use to drive internal business decisions. Moving forward we intend to develop our disclosures to more closely align with the TNFD's 14 core global indicators, to support comparable decision-useful information for report users. Several of our targets align with a number of Global Biodiversity Framework (GBF) long-term goals and targets for 2050, for improving biodiversity and transitioning to a nature positive economy. To measure our performance, we demonstrate delivery against contributing targets from a number of statutory requirements, such as the

condition of protected sites, biodiversity net gain, and environmental performance. We set a natural capital performance commitment, with related outcome delivery incentive (ODI), in our business plan for 2020–25. This is measured by demonstrating additional value created through ecosystem services for customers and the environment. We achieve this by implementing nature-based solutions where they offer best value compared to a hard-engineered solution. In 2023, we updated our corporate natural capital account, to assess the extent and value of the benefits our land provides to us and the rest of society. As we update our account in future, we can track changes to our natural assets and quantify improvements from our investments.

Storm overflows and river water quality

Many of our targets in the short and medium term are regulatory performance commitments for AMP7 and proposed in our AMP8 business plan. We also have targets that go further, like our Better Rivers pledges and targets for monitoring and reducing spills from storm overflows. Our longer-term targets, as part of our long-term delivery strategy, align with regulatory expectations. We are committed to improving surface, groundwater, and bathing water quality in the immediate term and beyond.

Risks and opportunities	Metric and indicators
Land use change	<ul style="list-style-type: none"> Extent of terrestrial and freshwater habitat change, measured by total land cover area (hectares).
Natural capital and biodiversity	<ul style="list-style-type: none"> Condition of our priority locations: Sites of Special Scientific Interest (hectares).
Invasive species	<ul style="list-style-type: none"> Record the presence of invasive plant species and monitor the number of non-native animal species on our land (number).
Water	<ul style="list-style-type: none"> Number of pollution incidents. Percentage reduction in leakage. Number of flooding incidents.
Recycling biosolids	<ul style="list-style-type: none"> Tonnes of biosolids removed.

Risks and opportunities	Targets and progress
Water	<ul style="list-style-type: none"> To monitor all storm overflows by 2023. To improve water quality in 1,315 kilometres of rivers across the North West by 2025. Reduce spills from more than 400 overflows by 2030. To protect and enhance over 500 kilometres of rivers by 2050. 25 per cent reduction in the number of pollution incidents by 2050. Reduce leakage by 50 per cent by 2050. Reduce to an average of no more than ten spills per storm overflow by 2050. Invest £230 million in environmental improvements during AMP7, supporting at least a one-third sustainable reduction in the number of spills recorded from our storm overflows by 2025 compared to the 2020 baseline. <p>Progress – There are over 2,200 storm overflows in the North West, and all are now monitored. We have committed to reinvest £250 million of our AMP7 outperformance to deliver improved environmental outcomes, including accelerating our Better Rivers programme. We have proposed a £3.1 billion investment in our AMP8 business plan to deliver further reductions in spills from storm overflows, and a £900 million investment to reduce nutrients. We've installed over 72,000 sensors on our pipe network that listen for leaks. Our proposed water resources management plan meets government policy to halve the level of leaks and to reduce water use per person per day to 110 litres by 2050.</p>
Natural capital and biodiversity	<ul style="list-style-type: none"> To achieve 100 per cent favourable or recovering condition for SSSI locations, improving 11,500 hectares of SSSI to enhance biodiversity by 2030. Protect and enhance rural environments and adapt to the challenges of climate change by 2050. <p>Progress – 91 per cent of SSSIs on our land now meet 'favourable' or 'unfavourable recovering condition' status. We have mapped out the extent and condition of our land via our 2023 Corporate Natural Capital Account.</p>
Invasive species	<ul style="list-style-type: none"> To remove invasive plant species and promote the growth of native plant and animal species by 2050. <p>Progress – We continue to remove non-native and invasive species, such as giant hogweed. Our River Rangers are helping to spread information on how to prevent the spread of invasive non-native species.</p>
Recycling biosolids	<ul style="list-style-type: none"> To reduce the amount of waste material going to landfill because of our production process by 2050. <p>Progress – Delivering biosolids for over 17,000 hectares of land every year across 1,500 farms.</p>

Healthier

Metrics and targets to monitor and assess delivery of the 'healthier' ambition in our purpose

Customer service and operational performance, including drinking water quality

We have a number of performance commitments with associated customer outcome delivery incentives (ODIs), through which we monitor and assess operational performance for customers and the environment. These set ambitious targets for performance each year, and rewards and/or penalties for over/underperformance against those targets. This includes Ofwat's measure of customer satisfaction, C-MeX, which is one of our KPIs, and water quality metrics.

We monitor individual performance and overall net rewards/penalties, as well as other metrics of operational performance outside of our regulatory performance commitments. Many of these measures are included in this report, and fuller commentary and outcomes related to our regulatory performance commitments can be found in our APR each year.

Affordability and vulnerability

We monitor metrics including cash collection, bad debt, and the number of customers on our support schemes. Our C-MeX score for customer satisfaction is impacted in part by the help we provide to customers in vulnerable situations. We have performance commitments with FY25 targets for lifting customers out of water poverty (which is one of our KPIs) and signing more customers up to Priority Services, and we have set ambitious

targets in our AMP8 business plan to double affordability support, supporting one in six customers in 2025–30.

Health, safety and wellbeing

We monitor various metrics including accidents and near misses, and health, safety and wellbeing is one of the things we assess in our annual colleague opinion survey. We target reductions in significant incidents and injuries, whilst ensuring the correct levels of training and competency, and we have targets for accident frequency rates for both colleagues and contractors. Our overarching aim is that every person working for us or on our behalf goes home safe and well. We also monitor programmes to maintain accreditation with the Workplace Wellbeing Charter.

One of the most important ways to protect colleague safety is to ensure they are properly trained. Recognising this, we have implemented a rule that colleagues must remain in certification on all mandatory training throughout the year to be eligible for the annual bonus. We monitor this regularly and report monthly on any colleagues out of certification.

Diverse and skilled workforce

We monitor metrics on the inclusive nature of our workforce, including gender, ethnicity, disability, social mobility and LGBT+. We target scoring at least in line with both the UK norm and the utilities norm on the diversity and inclusion questions in our colleague engagement

survey, and we seek to make progress towards improving our diversity statistics, including closing the gender pay gap.

In 2023, we published our very first equity, diversity and inclusion report, detailing the progress we have made and our commitments and plans to go further still. We have set long-term measurable and actionable ambitions for equity, diversity and inclusion, with a short-term action plan highlighting the areas of focus for the next financial year.

By 2027	
5%	Ethnic minority – executive and direct reports
By 2030	
5.4%	Ethnic minority – total workforce
40%	Females – total workforce
44%	Females on the board
50%	Female executives
50%	Female direct reports to executive

Our goals are focused initially on prioritising gender and ethnicity, but we also remain focused on fully supporting candidates and colleagues from all characteristics and social background.

Colleague training is monitored through a training and development portal, and they receive frequent reminders when they are due to come out of certification and need to undertake any refresher or new training, as well as giving them access to a wide range of training courses.

Stronger

Metrics and targets to monitor and assess delivery of the 'stronger' ambition in our purpose

Cyber security

We monitor a number of security metrics and have targets against each. Many are aimed at meeting or exceeding national recommendations or comparative performance, such as targets for security patching recommended by the National Cyber Security Centre, and our phishing test platform where we monitor comparative performance on clicks, compromises and reports.

We target (and achieve) zero malware outbreaks and use a series of technical and process controls to ensure we achieve this. We aim to have all our major suppliers security assured to our standards, and maintain a dynamic and live assessment of our supply chain through dedicated assessment tools and resources.

We are measured annually by our regulators against NIS security targets and have remained compliant since this was introduced. As a tier two PCI-DSS merchant, we are measured annually by our payment industry stakeholder against PCI-DSS and have remained compliant to requirements for many years.

Financial risk management

We operate within targets set out in our financial risk management policies, including a range for how many months' liquidity we maintain on a rolling basis, levels of index-linked and fixed rate debt as a percentage of net debt that we want to maintain, and energy price hedging. We set individual credit risk targets for counterparties based on their level of risk to ensure we are not over-exposed to any counterparty. We target a 55 to 65 per cent gearing range, which supports our credit rating targets.

Performance against all of these targets is monitored on a monthly basis through management information updates, with more detailed analysis provided quarterly. We also monitor and forecast performance against financial covenants to ensure these will not be breached.

Supporting communities

Community investment is one of our KPIs, with a target to increase our investment by ten per cent in AMP7 compared with the average over AMP5 and AMP6.

We also monitor other community support metrics, such as the number of children benefitting from our education materials.

Our AMP8 business plan has ambitious targets for what we will deliver for each of the five counties in our region, setting out how we will go even further to support these communities in 2025–30.

In 2020 United Utilities made six pledges that set out our initial priorities in the global goal to curb climate change to no more than 1.5°C above pre-industrial levels.

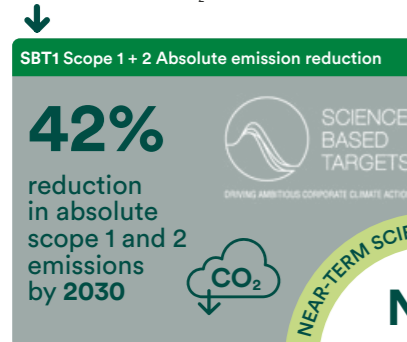
Our progress against these pledges, and where they link to remuneration, is summarised below. Before the start of the next investment period we will review our pledges and targets to reflect our business plan to 2030 and the opportunities which it will bring for emissions reduction.

Pledge 1
42 per cent reduction of scope 1 and 2 emissions from our 2020 baseline by 2030

Our progress
3.4% Some work to do

It continues to be challenging for us to reduce scope 1 and 2 emissions whilst serving an increasing North West population. 60 per cent of scope 1 and 2 emissions are from the release of methane which has a higher global warming potential in AR5. This change, from AR4, was the primary driver for the small increase in emissions in 2023/24.

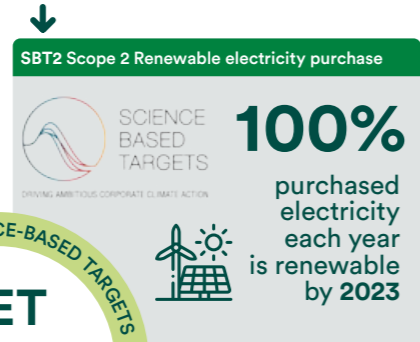
2019/20: 138,961 tCO₂e baseline
2023/24: 134,239 tCO₂e 3.4% reduction



Pledge 2
100 per cent renewable electricity by 2021

Our progress
100% Pledge met

Since October 2021, all electricity we buy through annual contracts is renewable. Around 22 per cent of our needs are renewably generated directly by us or with partners and the remainder is purchased and backed with REGO certificates. We are working on plans to further increase the energy we can self-supply through investment in renewable capacity and storage.



Pledge 3
100 per cent green fleet by 2028

Our progress
91 vehicles Confident of meeting pledge

Having assessed our travel patterns with advanced telematics we are now using this insight to develop the infrastructure a green fleet needs. We are installing home chargers for fleet drivers, have begun to install fast and rapid chargers across our operational sites and forecast to have 200 all-electric vehicles (EVs) by the end of 2025. We also encourage personal green travel through salary sacrifice schemes for bikes and EVs and discounted travel on Warrington buses.

Link to remuneration: LTP

Pledge 4
1,000 hectares of peatland restoration by 2030

Our progress
1,211ha Confident of meeting pledge

We have carried out peatland restoration activities across the North West building on the 2,000 hectares improved through our 2005–15 SCaMP projects. We already have 1,211 hectares under restoration towards meeting this pledge and the LTP. We have also identified a potential further 2,800 hectares that may be improved or protected, subject to detailed suitability assessments.

Link to remuneration: LTP

Pledge 5
Plant one million trees to create 550 hectares of woodland by 2030

Our progress
37ha Confident of meeting pledge

Woodland creation requires substantial preparatory work including identifying suitable sites, considering the appropriate species mix and planting density, securing funding and producing a long-term management plan. We are making great progress and our current schedule will create around 500 hectares of new woodland over the next three planting seasons.

Link to remuneration: LTP



Pledge 6
Set a scope 3 science-based target by 2021

Our progress
SBTs verified July 2021 Pledge met

Our two scope 3 science-based targets (SBT3 and SBT4 above) cover all our relevant scope 3 emissions. Our total scope 3 emissions in 2023/24 are now 2 per cent lower than our 2019/20 baseline. 18 per cent of our scope 3 emissions are from our construction services partners. We work with our construction partners to reduce emissions from their infrastructure projects and encourage them to set their own targets verified by the Science Based Targets initiative (SBTi). Of our construction suppliers, 23 per cent (by 2023/24 emissions) have already set SBTi verified science-based targets for their organisation. In total, 94 per cent have either already set targets or have an active commitment to set targets as can be seen on the SBTi Target dashboard.

Link to remuneration: LTP

The Companies Act 2006 (Strategic Report and Directors' Reports) Regulations require us to publish this energy and carbon report applying the 2019 UK Government Environmental Reporting Guidelines, including the Streamlined Energy and Carbon Reporting Guidance (SECR). We use the financial control approach so our energy and carbon accounting is aligned with the consolidated financial statements for United Utilities Group PLC for 1 April 2023 to 31 March 2024. This includes subsidiaries listed in section A8 on page 228.

Our greenhouse gas inventory, including the underlying energy data summarised below, has undergone independent third-party verification by the Achilles Group to the requirements of Toitū CarbonReduce programme.

	2023/24 GWh	2022/23 GWh ⁽⁴⁾	2021/22 GWh	2020/21 GWh
Energy use				
Electricity	819.6	818.8	803.3	807.3
Natural gas	34.1	33.6	33.8	40.0
Stationary fossil fuels (Gas oil, kerosene, diesel)	54.7	59.2	50.5	36.5
Stationary low-carbon fuels (HVO, LPG)	0.14	0.01	<0.01	0
Energy for transport (from fuel used or distance travelled)	80.2	79.1	72.6	67.5
Total energy used	988.7	990.7	960.2	951.3
Electricity purchased				
Grid renewable ⁽¹⁾	657.6	655.6	611.0	591.4
Grid standard tariff ⁽²⁾	0.09	0.13	22.3	47.8
Total purchased	657.7	655.7	633.3	639.2
Renewable energy generated				
CHP	120.4	123.0	133.8	127.6
Solar	47.3	46.4	47.8	50.7
Wind	5.2	5.1	4.8	5.3
Hydro	7.6	6.9	7.2	6.9
Biomethane ⁽³⁾	40.2	44.7	48.9	47.0
Total generated	220.7	226.1	242.5	237.5
Renewable energy exported				
Electricity	18.6	18.3	23.5	22.4
Biomethane ⁽³⁾	40.2	44.7	48.9	47.0
Total exported	58.8	63.0	72.4	69.4

⁽¹⁾ All contractually purchased electricity has been bundled with, or backed by, REGO certificates since October 2021.
⁽²⁾ Grid standard tariff electricity is the consumption on interim tariffs for newly adopted sites.
⁽³⁾ Biomethane generated and exported to grid was expressed as an electricity equivalent in previous annual reports.
⁽⁴⁾ The figures for 2022/23 are restated for some fuel purchased but not consumed in 2022/23 and to correct an error using petrol fuel properties for diesel and vice versa when calculating energy.

Energy efficiency actions taken
We have an integrated approach to energy efficiency based on continuous improvement of people – optimising ways of working; systems – improving visibility of use and analysis of data systems; and technology – targeted investment to remove technological inefficiencies.

Our energy management programme is delivered by a specialist team of energy engineers working with operational staff. It sets a common approach for benchmarking performance and develops action plans to optimise site-based energy use. The programme held 59 workshops this year and is supported by operational carbon e-learning and a comprehensive energy performance reporting and analysis capability.

We have completed hundreds of systems and technology measures to improve energy efficiency from installing low energy lighting to automating operations of our water and wastewater assets such as with new controls for secondary treatment and pumps. We have also installed over 3,000 sub-meters to identify opportunities to restrain energy use and quantify the benefits of interventions.

Improving energy efficiency is a primary focus of our capital programme and also integrated into our Dynamic Network Management (DNM) capability to ensure our asset base is as efficient as possible. We have developed training courses to engage and develop colleagues across the business and implemented our 'Use Less, Save More' campaign.

Energy strategy

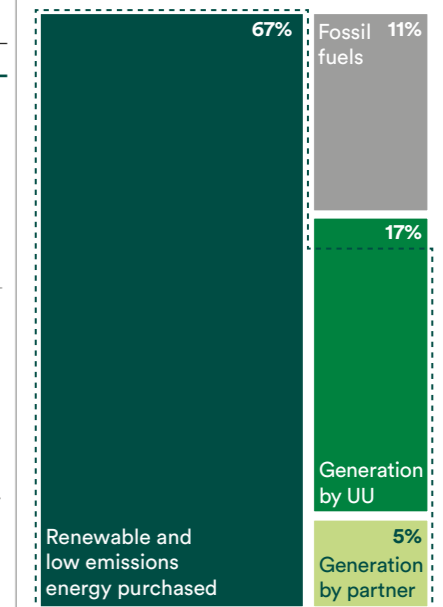
Our energy management strategy has four objectives:

- Efficient use of energy;
- Maximising self-generation and direct supply opportunities;
- Minimising costs; and
- Building supply resilience to ensure we can deliver our services.

Each year we serve a growing population, which means increased energy use as we strive to achieve stringent environmental performance targets. We seek to mitigate this through our energy management and in recent years have maintained consistent energy use in the face of considerable upward pressures.

This year, to support our aims to switch to clean, green energy, we have introduced a new energy metric: 'Energy generated directly, and with partners, as a percentage of used'. The measure has also been included in the 2023 Long Term Plan for executive directors and will encourage energy efficiency, fuel switching away from fossil fuel and clean energy generation, each of which support our net zero transition. Energy generated directly, and with partners, from low carbon sources together with renewable and low emissions energy purchased in 2023/24 is equivalent to 89 per cent of the total energy used.

Switch to clean, green energy



Electricity use (100% renewable)

Energy and carbon report: GHG emissions inventory

Emissions are calculated by estimating the individual greenhouse gases that result from all United Utilities' activities, converted into a tonnes carbon dioxide equivalent (tCO₂e).

Tools and values used in 2024 include UK water industry Carbon Accounting Workbook v18, the 2023 UK Government GHG conversion factors for company

reporting, global warming potentials from IPCC 5th Assessment report and Global CEDA (Comprehensive Environmental Data Archive) v6.

Our greenhouse gas inventory, and the underlying data, has undergone independent third-party verification by Achilles group and is certified to the requirements of the Toitū CarbonReduce

programme, as aligned to the GHG Protocol Corporate Accounting and Reporting Standard (2015) and the international carbon reporting standard ISO 14064, Part 1:2018. The assurance certificate and report can be found at unitedutilities.com/corporate/responsibility/environment/climate-change

	2023/24 ⁽⁴⁾ tCO ₂ e	2022/23 tCO ₂ e	2021/22 tCO ₂ e	2020/21 tCO ₂ e	SBT baseline 2019/20 tCO ₂ e	
Scope 1 and 2 greenhouse gas emissions						
Scope 1: Emissions from activities we own or control, e.g. burning fossil fuels, wastewater and sludge processing.						
Direct emissions from burning of fossil fuels	20,188 ⁽⁵⁾	21,166	19,207	17,371	15,247	
Process and fugitive emissions – including refrigerants	96,173	94,915	96,020	98,569	96,186	
Transport: Company-owned or leased vehicles	17,838	17,665	16,507	16,634	15,739	
Scope 2: Emissions from purchased electricity including for use in vehicles.						
Purchased electricity – generation	Market-based ⁽¹⁾	32.9 ⁽⁶⁾	9.3 ⁽⁶⁾	4,201	8,507	11,789
	Location-based ⁽²⁾	136,183	126,813	134,492	149,030	164,521
Purchased electricity – vehicles	Market-based	6.8	1.7	0.04	0	0
	Location-based	6.8	1.7	0.04	0	0
Gross scope 1 and 2 emissions total	Market-based	134,239	133,757	135,936	141,081	138,961
	Location-based	270,389	260,561	266,226	281,604	291,693
Emissions reduction from:						
Renewable electricity exported ⁽³⁾	-3,101	-2,888	-4,317	-4,184	-3,979	
Biomethane exported	Location-based -8,439	Location-based -9,360	Location-based -10,283	Location-based -9,725	Location-based -9,302	
Green tariff electricity purchased ⁽³⁾	Location-based -136,162	Location-based -125,746	Location-based -133,197	Location-based -138,015	Location-based -164,210	
Net scope 1 and 2 emissions total	Market-based	131,138	130,869	131,619	136,897	134,982
	Location-based	122,687	122,567	118,429	129,680	114,202

⁽¹⁾ Market-based figures use emission factors specific to the actual electricity purchased. For electricity supplied on a standard grid tariff we use CO₂e per kWh from suppliers' public fuel mix disclosures.
⁽²⁾ Location-based figures use average UK grid emissions to calculate electricity emissions and are shown in *grey italics*.
⁽³⁾ Exported electricity emissions use the average UK grid emissions factor for both market and location-based totals.
⁽⁴⁾ 2023/24 emission factors use IPCC AR5 global warming potentials where CH₄ = 28, N₂O = 265. All previous years use AR4 where CH₄ = 25, N₂O = 298.
⁽⁵⁾ Emissions from electricity for recently adopted sites supplied on standard tariffs until they can be moved onto our corporate renewable contracts.
⁽⁶⁾ Restated to correct for some fuel previously included in 2022/23 accounts but consumed in 2023/24.

	2023/24 tCO ₂ e	2022/23 tCO ₂ e	2021/22 tCO ₂ e	2020/21 tCO ₂ e	SBT baseline 2019/20 tCO ₂ e
Scope 3 greenhouse gas emissions					
Category 1: Purchased goods and services ⁽⁷⁾	233,480	250,189	292,946	271,871	213,442
Category 2: Capital goods ⁽⁷⁾	99,962	138,182	112,498	95,968	128,286
Category 3: Fuel and energy-related emissions ⁽⁸⁾	53,189	53,446 ⁽⁶⁾	58,948	42,599	45,262
Category 4: Upstream T&D – sludge transport ⁽⁸⁾	6	35	103	1,119	3,374
Category 5: Waste generated in ops: including sludge disposal ⁽⁶⁾	26,135	27,454	25,458	26,333	27,936
Category 6: Business travel: public transport, private vehicles and hotel stays ⁽⁶⁾	1,464	1,486	1,138	1,226	3,508
Category 7: Employee commuting and homeworking ⁽⁹⁾	5,136	5,336	4,066	4,108	4,231
Scope scope 3 total	419,372	476,128	495,158	443,224	426,039
Scope 3 SBT measure (excluding category 2)	319,410	337,946	382,660	347,256	297,753

⁽⁷⁾ Categories 1 (excluding chemicals) and 2 use Global CEDA v6 to estimate emissions based on the amount spent by spend category. CEDA is a multi-region, environmentally extended input-output database and has global coverage, annual updates and is a CDP recommended tool.
⁽⁸⁾ Categories 3, 4, 5 and 6 use activity records and 2023 UK Government GHG conversion factors for company reporting.
⁽⁹⁾ Category 7 uses EcoAct models to estimate emissions from employee commuting and homeworking based on company FTE figures and home, site, hybrid working policies.

	2023/24 tCO ₂ e	2022/23 tCO ₂ e	2021/22 tCO ₂ e	2020/21 tCO ₂ e
Greenhouse gas emissions intensity				
Scope 1 and 2 gross emissions per £m revenue	Market-based 68.9	73.3	73.0	78.0
Scope 1 and 2 net emissions per £m revenue	Market-based 67.3	71.7	70.7	75.7
Water net operational emissions per megalitre water treated ⁽¹⁰⁾	Location-based 177.6	101.4	106.9	118.5
Wastewater net operational emissions per megalitre sewage treated ⁽¹⁰⁾	Location-based 209.0	158.8	144.2	152.3

⁽¹⁰⁾ UK water industry intensity metrics. The method for calculating these has been redefined by Ofwat in 2024.

Scope 1 emissions

Wastewater and sludge processes cause approximately 70 per cent of our scope 1 emissions as the gases released, nitrous oxide (N₂O) and methane (CH₄), have much greater global warming potentials than carbon dioxide (CO₂). Our process emissions are currently estimated as a direct function of the amount of wastewater we treat and from recent monitoring we believe this to be an underestimate. We are collaborating with other UK water companies to improve the method to quantify these emissions and to identify ways to reduce or capture those emissions for beneficial use.

Scope 2 emissions

Our market-based scope 2 electricity emissions are negligible as all our contract purchased electricity is REGO backed. In the light of increasing costs, we are reviewing our commitment to REGO back 100 per cent of our electricity purchase in the future.

Scope 3 emissions

Most of our scope 3 emissions are in GHG Protocol categories 1 (products and services) and 2 (capital goods); the latter being the construction services we buy. The current methodology to estimate these emissions uses records of the amount we have spent. This provides an

estimate that is determined by the scale and timing of our investment programme rather than our design choices. We are working with supply chain partners to implement processes and systems to quantify category 2 emissions based on materials and techniques used, thereby giving us the opportunity to influence and track the emissions impacts of our management decisions.

The next highest category is indirect emissions from fuel and energy use so our clean energy and renewable generation ambitions will tackle these as well as scope 1 emissions.

