How we're delivering our purpose: greener

Pledges towards a greener North West

Across the five counties, we own over 56,000 hectares of land, which delivers several ecosystem service benefits such as water supply, timber, air quality regulation, and recreation. Demonstrating our commitment to protect and enhance this value, we have made carbon and Better Rivers pledges, and we will finalise new nature pledges later this year.

Carbon

Five years ago, we made six pledges with our initial priorities for our part towards a low-carbon future. We have since set four near-term targets and long-term targets, all of which have been validated by the Science Based Targets initiative (SBTi). We have also incorporated measures into our remuneration via our Long Term Plan.

Pledge 1: 42 per cent reduction of scope 1 and 2 emissions by 2030 *10.5 per cent reduction since 2020*

Pledge 2: 100 per cent renewable electricity by 2021 *Achieved in 2021* ✓

Pledge 3: 100 per cent green fleet by 2028 *204 vehicles; 8 per cent of our fleet*

Pledge 4: 1,000 hectares of peatland restoration by 2030 *Achieved in 2024* ✓

Pledge 5: Plant one million trees to create 550 hectares of woodland by 2030 *640,252 trees planted and 83 hectares of woodland created since 2020*

Pledge 6: Set a scope 3 science-based target by 2021 *Achieved in 2021* ✓

We have achieved three of our six carbon pledges and are making good progress to deliver the rest.

All electricity bought through contracts has been renewable since October 2021. Science-based targets covering all scope 3 emissions were approved by the SBTi in 2021 and, so far, we have 3,000 hectares of peatland under restoration meeting this pledge and the associated LTP target.

Advanced telematics mean we now have a better understanding of our transport needs and can optimise the number and types of vehicles while accelerating the decarbonisation of our fleet. Once recent orders are delivered, we will have over 400 all-electric vehicles, including four HGVs, while continuing to trial alternative fuels such as hydrogen and HVO.

Creating and maintaining even small pockets of woodland can deliver natural flood management, provide habitats for wildlife and boost biodiversity in addition to climate benefits. Our planting does not prioritise carbon sequestration, as that can promote high-growth monoculture woodland; instead, we value actions that have broader sustainability or conservation merit. We choose appropriate species mixes and planting density, to create the best woodland for our land holding. Our current estimate is that we will have created our pledged 550 hectares of new woodland by the end of the 2030 planting season.

We have met our scope 3 supplier engagement SBT with 78 per cent of category 2 suppliers by emissions having set near-term targets aligned to SBTi criteria.

Better Rivers

In 2022, we launched our Better Rivers: Better North West programme and made four pledges, underpinned by around 30 commitments, to improve river water quality, leading to 115 miles of improved waterways.

Pledge 1: Ensuring our operations progressively reduce impact to river health

Pledge 2: Being open and transparent about our performance and our plans

Pledge 3: Making rivers beautiful and supporting others to improve and care for them

Pledge 4: Creating more opportunities for everyone to enjoy rivers and waterways

We are continuing to grow our team of River Rangers who proactively patrol North West riverbanks, checking on our assets, taking part in litter picks, building relationships with our partners, engaging with community groups, and taking water samples at a variety of locations.

We also have sensors installed to monitor the operation of every one of our more than 2,250 storm overflows, and the data is published on our interactive, near real-time map.

We are forging close links with local communities and organisations, such as Mersey Rivers Trust and Friends of Bluebell Woods. We work with groups to improve the environment and river water quality through activities such as Himalayan balsam bashing – pulling up and destroying this invasive non-native species.

Our Better Rivers community fund, set up as one of our commitments, supports groups who know and care for waterways. For example, Bollin and Birkin Flyfishers, in Cheshire, successfully applied to the fund for safety equipment, water testing kits, and information boards, to help them act and raise awareness of the need to protect and support better rivers in the area.

Nature

Later this year, we will finalise several nature pledges to clearly set out our dedication to restore, enhance and connect habitats across the North West.

Our nature pledges will focus on both land with special designations, and habitats that are prominent in our region, and include activities that:

- support the government commitment to the global '30 by 30' target, protecting 30 per cent of land and ocean by 2030;
- enhance biodiversity;
- create and improve the condition of woodland; and
- restore peatland.

Energy and carbon report

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 2024 to 31 March 2025. This includes the subsidiaries listed in section A7 on page 238.

Energy data

	2024/25 GWh	2023/24 GWh	2022/23 GWh	2021/22 GWh
Energy use				
Electricity	**822.4**	819.6	818.8	803.3
Natural gas	**14.2**	34.1	33.6	33.8
Biogas in boilers	**16.4**	n/a	n/a	n/a
Stationary fossil fuels (gas oil, kerosene, diesel)	**49.1**	51.4	55.8	50.5
Energy for transport (from fuel used or distance travelled)	**76.0**	75.8	74.8	72.6
Low-carbon alternatives (HVO, LPG, EVs)	**0.27**	0.25	0.05	0.20
Total energy used(3)	**978.3**	981.1	983.0	960.4
Electricity purchased				
Grid renewable(1)	**680.1**	657.6	655.6	611.0
Grid standard tariff(2)	**0.13**	0.09	0.13	22.3
Total purchased	**680.2**	657.7	655.7	633.3
Renewable energy generated				
CHP	**105.2**	120.4	123.0	133.8
Biogas in boilers	**16.4**			
Solar	**42.0**	47.3	46.4	47.8
Wind	**4.7**	5.2	5.1	4.8
Hydro	**6.3**	7.6	6.9	7.2
Biomethane	**45.6**	40.2	44.7	48.9
Total generated	**220.2**	220.7	226.1	242.5
Renewable energy exported				
Electricity	**16.1**	18.6	18.3	23.5
Biomethane	**45.6**	40.2	44.7	48.9
Total exported	**61.7**	58.8	63.0	72.4

(1) All contractually purchased electricity since October 2021 has been bundled with, or backed by, separately purchased, REGO certificates.
(2) Grid standard tariff electricity is the consumption on interim tariffs for newly adopted sites.
(3) All energy was consumed in the UK and if calculated from volume or distance used net calorific values.

Energy efficiency actions

We have an integrated approach to energy efficiency across site operations, engineering and energy services to achieve successful outcome through the continuous improvement of:

- people – optimising ways of working;
- systems – improving visibility of use and analysis of data systems; and
- technology – targeted investment to improve efficiency.

Our energy management programme sets a common approach for benchmarking performance and develops action plans to optimise energy use. The programme also includes operational carbon e-learning and a comprehensive energy performance reporting and analysis capability.

A key feature of the programme are local workshops where specialist teams of energy engineers work with operational staff to identify problems and opportunities on their site. The opportunities identified are collated into a company-wide database for assessment and to develop business cases for future projects.

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 financial and GHG emissions benefits of interventions.

A focus this year has been on the installation of variable speed drives (VSD) to improve the control and efficiency of pumps. At Bearstone, use of a VSD has been shown to reduce the power consumption by up to 25 per cent with no reduction in the flow rate of the pump. At Denton Pumping Station, using a VSD instead of throttling improved the performance and lifespan of pumps by operating closer to their best efficiency point.

VSDs can also improve the operation of other equipment such as compressors. A study at Huntington Water Treatment Works found that about a third of one compressor's energy consumption is in off-load operation. Replacing the existing air compressor with a 30kW compressor with a VSD would reduce the start/stops and off load operation and savings of 38.5 per cent might be achieved.

Energy strategy

Our energy management strategy has four objectives:

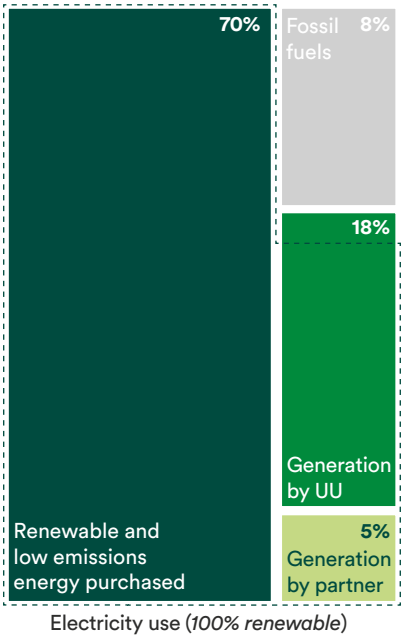
- Efficient use of energy;
- Maximising self-generation and direct supply opportunities;
- Minimising costs; and
- Building supply resilience to ensure we can deliver our services.

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.

To support our aims to switch to clean, green energy, last year, we introduced an energy metric and included it in the 2023 Long Term Plan (LTP) for executive directors. This target incentivises energy efficiency, switching away from fossil fuel, and clean energy generation. For the 2024 LTP, the remuneration committee has approved a direct measure to reduce the fuel-related GHG emissions to further encourage switches to low-emission power sources.

Switch to clean, green energy

As illustrated below, only 8 per cent of our total energy used is from fossil fuels. We aim to reduce this further through our energy management strategy.



Electricity use (*100% renewable*)

Stock code: UU.

How we're delivering our purpose: greener

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 (tCO_2e). Tools and values used in 2025 include UK water industry Carbon Accounting Workbook v19, the 2024 UK Government GHG conversion factors for company reporting, global warming potentials from IPCC 5th Assessment report and Global CEDA (Comprehensive Environmental Data Archive) v7. 100 per cent of our emissions are related to activities and energy consumption in the UK.

Our greenhouse gas inventory, and the underlying energy 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**

Scope 1 and 2 greenhouse gas emissions[4]		2024/25 tCO_2e	2023/24 tCO_2e	2022/23 tCO_2e	2021/22 tCO_2e	SBT baseline 2019/20 tCO_2e
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		**15,922**	20,188	21,166	19,207	15,247
Process and fugitive emissions – including refrigerants		**90,633**	96,173	94,915	96,020	96,186
Transport: Company-owned or leased vehicles		**17,785**	17,838	17,665	16,507	15,739
Scope 2: Emissions from purchased electricity including for use in vehicles						
Purchased electricity – generation	Market-based[1]	**47.2**[5]	32.9[5]	9.3[5]	4,201	11,789
	Location-based[2]	*140,847*	*136,183*	*126,813*	*134,492*	*164,521*
Purchased electricity – vehicles	Market-based	**31.1**	6.8	1.7	<0.1	0
	Location-based	*31.1*	*6.8*	*1.7*	*<0.1*	*0*
Gross scope 1 and 2 emissions total	**Market-based**	**124,418**	134,239	133,757	135,936	138,961
	Location-based	***265,218***	***270,389***	***260,561***	***266,226***	***291,693***
Net emissions reductions						
Renewable electricity exported[3]		**-2,726**	-3,101	-2,888	-4,317	-3,979
Biomethane exported	*Location-based*	*-8,479*	*-8,439*	*-9,360*	*-10,283*	*-9,302*
Green tariff electricity purchased[3]	*Location-based*	*-132,127*	*-136,162*	*-125,746*	*-133,197*	*-164,210*
Net scope 1 and 2 emissions total	**Market-based**	**121,693**	131,138	130,869	131,619	134,982
	Location-based	***121,887***	***122,687***	***122,567***	***118,429***	***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 CO_2e 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 *green italics.*

(3) Exported electricity emissions use the average UK grid emissions factor for both market and location-based totals.

(4) From 2023/24 emission factors use IPCC AR5 global warming potentials where CH_4 = 28, N_2O = 265. Earlier years use AR4 where CH_4 = 25, N_2O = 298.

(5) Emissions from electricity for recently adopted sites supplied on standard tariffs until they can be moved onto our corporate renewable contracts.

Scope 3 greenhouse gas emissions	2024/25 tCO_2e	2023/24 tCO_2e	2022/23 tCO_2e	2021/22 tCO_2e	SBT baseline 2019/20 tCO_2e
Category 1: Purchased goods and services[6]	**239,757**	233,480	250,189	292,946	213,442
Category 2: Capital goods[6]	**106,250**	99,962	138,182	112,498	128,286
Category 3: Fuel and energy-related emissions[7]					
Purchased electricity – well to tank and transmission and distribution	**46,383**	46,536	44,704	50,020	38,865
Fuel (excluding electricity) – well to tank	**7,820**	6,653	8,742	8,928	6,397
Category 4: Upstream T&D – sludge transport[7]	**8**	6	35	103	3,374
Category 5: Waste generated in ops: including sludge disposal[7]	**28,357**	26,135	27,454	25,458	27,936
Category 6: Business travel: public transport, private vehicles and hotel stays[7]	**1,503**	1,464	1,486	1,138	3,508
Category 7: Employee commuting and homeworking[8]					
Employee commuting	**4,676**	4,631	4,974	2,990	2,405
Homeworking	**572**	505	361	1,076	1,703
Scope 3 total	**435,326**	**419,372**	**476,128**	**495,158**	**426,039**
Scope 3 SBT measure (excludes category 2)	**329,076**	**319,410**	**337,946**	**382,660**	**297,753**

(6) Categories 1 (excluding chemicals) and 2 use the latest Global CEDA (v7 for 2024/25) to estimate emissions based on the amount spent by spend category. CEDA is a multi-region, environmentally extended input-output database, that has global coverage and is a CDP recommended tool.

(7) Categories 3, 4, 5 and 6 use activity records and 2023 UK Government GHG conversion factors for company reporting.

(8) Category 7 uses EcoAct models to estimate emissions from employee commuting and homeworking based on company FTE figures and home, site, and hybrid working policies.

Greenhouse gas emissions intensity		2024/25 tCO_2e	2023/24 tCO_2e	2022/23 tCO_2e	2021/22 tCO_2e
Gross scope 1 and 2 emissions per £m revenue	Market-based	58.0	68.9	73.3	73.0
Net scope 1 and 2 emissions per £m revenue	Market-based	56.7	67.3	71.7	70.7
Net water operational emissions per megalitre water treated[9]	Location-based	172.1	177.6	101.4	106.9
Net wastewater operational emissions per megalitre sewage treated [9]	Location-based	198.5	209.0	158.8	144.2

(9) UK water industry intensity metrics. The method for calculating these was redefined by Ofwat in 2024. Emission units are kg CO_2e.

Scope 1 emissions

Wastewater and sludge processes cause over 70 per cent of our scope 1 emissions as the gases released, nitrous oxide (N_2O) and methane (CH_4), have much greater global warming potential than carbon dioxide (CO_2). Our wastewater process emissions are proportional to the population and the sludge produced, therefore emissions rise as population numbers increase. We believe the method all UK water companies use underestimates emissions, however, to address this, we have successfully obtained AMP8 net zero enhancement funding to monitor N_2O release, identify ways to improve the estimation method, and reduce or capture those emissions for beneficial use.

Scope 2 emissions

As all our contract purchased electricity is currently REGO backed, the only market-based scope 2 emissions are those from interim supply tariffs and from public and home charging of electric vehicles. Note we are currently reviewing our commitment to buying REGO certificates for all our electricity purchase.

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. With the exception of chemicals, we estimate these emissions based on the value of goods and services bought and their spend category using a multi-region, environmentally-extended input-output database, Global CEDA v7. This provides an estimate that is determined by the scale and timing of our investments rather than our design or supplier choices. We are, however, increasing the use of sustainability as a criteria in both supplier and product selection and in parallel are developing ways to recognise the benefit of such management decisions on our emissions.

The next highest category is the indirect emissions from fuel and energy so switches to more efficient processes and the use of low carbon alternative fuels will reduce both scope 1 and 3 footprints.

Fuel and energy 9 10
15,922 tCO_2e + 54,203 tCO_2e
Fossil fuel use at our sites and the well-to-tank and transmission and distribution scope 3 emissions for all energy makes up 13 per cent of our net total footprint. Reducing our consumption and replacing such fuels with low emissions alternatives is central to our net zero transition plan. We intend to grow our renewable capabilities and play an active role in the development of new technologies such as hydrogen.

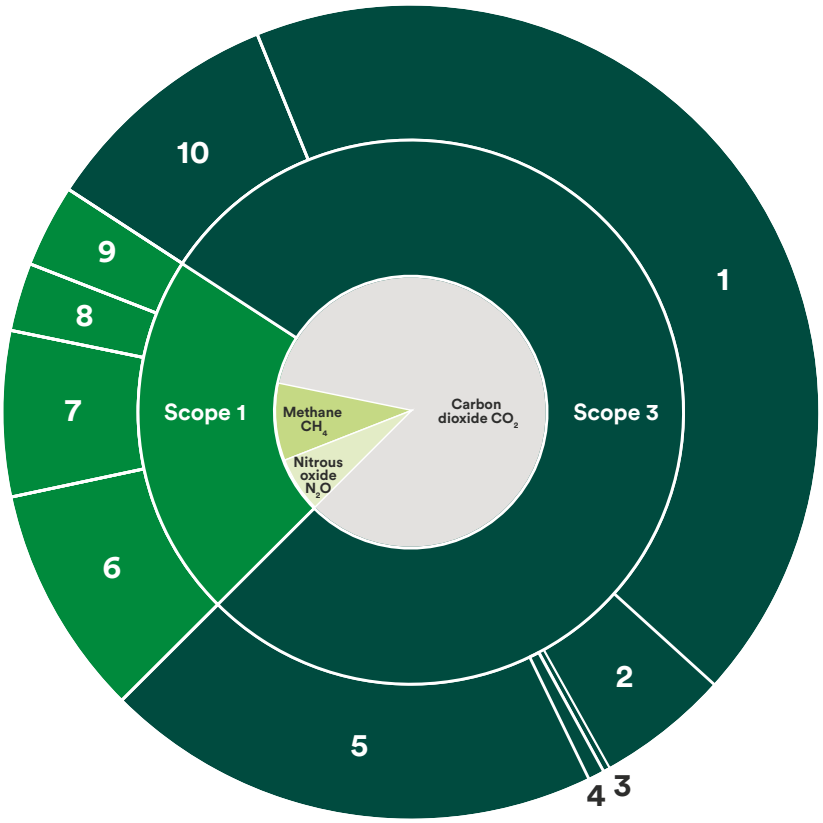
Transport 17,785 tCO_2e 8
We have a growing infrastructure to support our fleet transition to low-carbon fuels. By summer 2025, we will have 400 electric vehicles and are exploring options to fuel HGVs, including hydrogen and HVO.

Sludge and biogas 36,260 tCO_2e 7
Treatment of sludge produces biomethane. The majority of our facilities use advanced anaerobic digestion which captures more of this biomethane to power and heat our processes or generate electricity. This reduces methane emitted both during treatment and after disposal.

Wastewater processing 54,123 tCO_2e 6
The biological processes used in wastewater treatment produce N_2O and CH_4, both potent GHGs. Emissions are, approximately, proportional to the size of the communities producing the wastewater.

Gas losses 250 tCO_2e
GHG from refrigerants R410A and HFC134a.

Purchased goods and services 239,757 tCO_2e 1
Approximately 40,000 tCO_2e are from chemicals we use. As we estimate these emissions using the weight purchased and emission factors from published life-cycle carbon assessments we can identify the processes with the highest impact and influence operational decisions and research and development investment accordingly. For the rest of our purchased goods and services we use records of the amount we have spent and the environmentally extended input-output database, Global CEDA v7, to give us a comprehensive but indicative estimate.



Capital goods 5
106,250 tCO_2e
We have a significant capital programme to develop our water and wastewater services infrastructure and this construction will produce substantial emissions.

Commuting 4,676 tCO_2e 4
Homeworking 572 tCO_2e
We use the numbers of colleagues, where they typically work (office, site or home) and the EcoAct's UK models to estimate emissions.

Business travel 3
1,503 tCO_2e
Public transport, including air, train, vehicles and hotel stays.

Sludge transport 8 tCO_2e
Contracted sludge transport.

Operational waste 2
28,357 tCO_2e
Of these emissions, 97 per cent are from the disposal of sludge biosolids to agricultural land. UKWIR research shows that the industry estimation method is likely to be significantly overestimating these emissions.