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 2025 to 31 March 2026. This includes the subsidiaries listed in section A7 on page 237.

Greenhouse gas emissions methodology

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 2026 include UK water industry Carbon Accounting Workbook v20, the 2025 UK Government GHG conversion factors for company reporting, global warming potentials from IPCC 5th Assessment report and OpenCEDA (Comprehensive Environmental Data Archive) 2025. 100% 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 aligned to the GHG Protocol Corporate Accounting and Reporting Standard (2015) and the international carbon reporting standard ISO 14064, Part 1:2018. The Toitū Carbon Reduce programme certification and report can be found at **unitedutilities.com/corporate/responsibility/environment/climate-change-mitigation**

Scope 1 and 2 greenhouse gas emissions[4] tCO_2e		2025/26 Updated method	*2025/26 Previous method*	2024/25	2023/24	2022/23	2019/20 SBT baseline
				As reported using previous method			
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		**19,825**		15,922	20,188	21,166	15,247
Process[1] and fugitive emissions – including refrigerants		**329,721**	*90,223*	90,633	96,173	94,915	96,186
Transport: Company-owned or leased vehicles		**18,724**		17,785	17,838	17,665	15,739
Scope 2: Emissions from purchased electricity including for use in vehicles [2]							
Purchased electricity – generation	Market-based	**170,675**		47[5]	33[5]	9[5]	11,789
	Location-based	***125,136***		*140,847*	*136,183*	*126,813*	*164,521*
Purchased electricity – vehicles	Market-based	**96**		31	7	2	0
	Location-based	***96***		*31*	*7*	*2*	*0*
Gross scope 1 and 2 emissions total	Market-based	**539,041**	*299,543*	**124,418**	**134,239**	**133,757**	**138,961**
	Location-based	***493,502***	*254,004*	***265,218***	***270,389***	***260,561***	***291,693***
Net emissions reductions							
Renewable electricity exported[3]	Market-based and *Location-based*	**-2,787**		-2,726	-3,101	-2,888	-3,979
Biomethane exported	*Location-based*	***-8,623***		*-8,479*	*-8,439*	*-9,360*	*-9,302*
Green tariff electricity purchased[3]	*Location-based*	***-1***		*-132,127*	*-136,162*	*-125,746*	*-164,210*
Net scope 1 and 2 emissions total	Market-based	**536,254**	*296,756*	**121,693**	**131,138**	**130,869**	**134,982**
	Location-based	***482,091***	*242,593*	***121,887***	***122,687***	***122,566***	***114,202***

(1) 2025/26 Wastewater process and sludge disposal emissions use factors in updated in 2026 to align to latest IPCC guidance and UKWIR research. *2025/26 Previous method uses 2025/26 activity data with previous factors.*

(2) Scope 2 methods – Market-based: uses intensity factors specific to the contractual agreements. For electricity supplied on a standard grid tariff, we use CO_2e per kWh from suppliers' public fuel mix disclosures. *Location-based: uses average UK grid emissions intensities and are shown in green italics.*

(3) Exported electricity emissions use the UK Residual mix factor 420.7 g/kWh for both market- and *location-based* totals.

(4) From 2023/24, emission factors use IPCC AR5 global warming potentials. Earlier years use global warming potentials from AR4.

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

Scope 3 greenhouse gas emissions tCO_2e	Scope 3 SBT (excludes category 2)	2025/26 Updated method	*2025/26 Previous method*	2024/25	2023/24	2022/23	2019/20 SBT baseline
				As reported using previous method			
Category 1: Purchased goods and services[6]		**372,701**	*307,082*	239,757	233,480	250,189	213,442
Category 2: Capital goods[6]		**132,557**	*125,798*	106,250	99,962	138,182	128,286
Category 3: Fuel and energy-related emissions[7]							
Purchased electricity – well to tank and transmission and distribution		**48,395**		46,383	46,536	44,704	38,865
Fuel (excluding electricity) – well to tank		**9,449**		7,820	6,653	8,742	6,397
Category 4: Upstream T&D – sludge transport[7]		**2,068**		8	6	35	3,374
Category 5: Waste generated in ops: including sludge disposal[1, 7]		**14,308**	*33,238*	28,357	26,135	27,454	27,936
Category 6: Business travel: public transport, private vehicles and hotel stays[7]		**1,700**		1,503	1,464	1,486	3,508
Category 7: Employee commuting and homeworking[7, 8]							
Commuting		**9,299**	*4,875*	4,676	4,631	4,974	4,231
Homeworking		**456**		572	505	361	0
Category 11: Use of sold products		**17**		17	17	17	17
Scope 3 emissions total	**Scope 3 SBT (excludes category 2)**	**458,393**	*407,280*	**329,093**	**319,427**	**337,962**	**297,770**
	Scope 3 total	**590,950**	*533,078*	**435,343**	**419,389**	**476,144**	**426,056**

(6) Emissions for goods and services (excluding chemicals) were quantified based on the amount spent by sector. For 2025/26 we used open CEDA 2025 from Watershed, an environmentally extended input-output database that has global coverage and is a CDP recommended tool. *2025/26 Previous method estimates are the products of 2024/25 emissions per £ spend and 2025/26 spend for each category.*

(7) Categories 3, 4, 5, 6, 7 and 11 use activity records and the relevant year's UK Government GHG conversion factors for company reporting.

(8) 2025/26 Category 7 figures are calculated using a bespoke United Utilities model drawing on company FTE data, average commute distances and hybrid working policies and UK Government travel statistics for the North West. *2025/26 Previous method uses travel statistics for England.*

Emissions commentary

Process, chemicals and waste

Biological wastewater treatment processes produce nitrous oxide (N_2O) and methane (CH_4), both of which have a significantly higher global warming potential than carbon dioxide (CO_2). Our wastewater process emissions are directly proportional to the population served and the volume of sludge produced and, therefore, increase as population grows.

In 2026, the UK water industry updated the calculation methodology for these emissions to reflect current IPCC guidance and published research. This accounting change increased reported process emissions by 239,498 tCO_2e, representing underlying emissions more accurately rather than a change in performance.

47,144 tCO_2e of our emissions from purchased goods and services were from chemicals used in water and wastewater treatment.

Sludge treatment produces biomethane, and the majority of our sites use advanced anaerobic digestion to maximise capture of this gas for use in heat and power generation. This reduces methane emissions during treatment and post disposal.

UKWIR research (Biosolids to land: carbon emissions and carbon capture) identified that previous industry methods significantly overestimated methane emissions associated with the land application of sludge biosolids. The updated factors have been used for 2025/26 emissions reporting reducing waste emissions by 18,930 tCO_2e.

Fuel and energy

Treatment and distribution of water and wastewater are energy-intensive activities, with fuel and energy accounting for 20% of our footprint. These emissions arise from the combustion of fossil fuels, purchased electricity, and associated well-to-tank and transmission and distribution emissions. Reducing energy consumption and replacing fossil fuels with lower-emission alternatives is central to the 'Reduce' theme of our net zero transition action plan.

We have continued to expand the infrastructure supporting our transition to low-carbon fleet fuels. As of April 2026, we operate over 100 electric vehicle charging points on our sites, 78 company van users have home charging, and there are over 400 electric vehicles in our fleet, including four HGVs. We are also increasing the use of renewable fuels such as biogas and HVO across our equipment and fleet, while exploring lower-emissions alternatives. In parallel, we plan to expand our renewable generation capacity and play an active role in the development of emerging technologies, including hydrogen.

Goods and services

Most of our scope 3 emissions arise from categories 1 (purchased goods and services) and 2 (capital goods). Capital goods are defined as construction services, with all other goods and service spend reported under category 1.

With the exception of chemicals, emissions from goods and services are calculated using annual spend and sector-based factors from the Open CEDA dataset, an open source environmentally extended input-output database. This provides a comprehensive but indicative estimate; however, it does not reflect our increasing use of sustainability criteria in supplier and product selection.

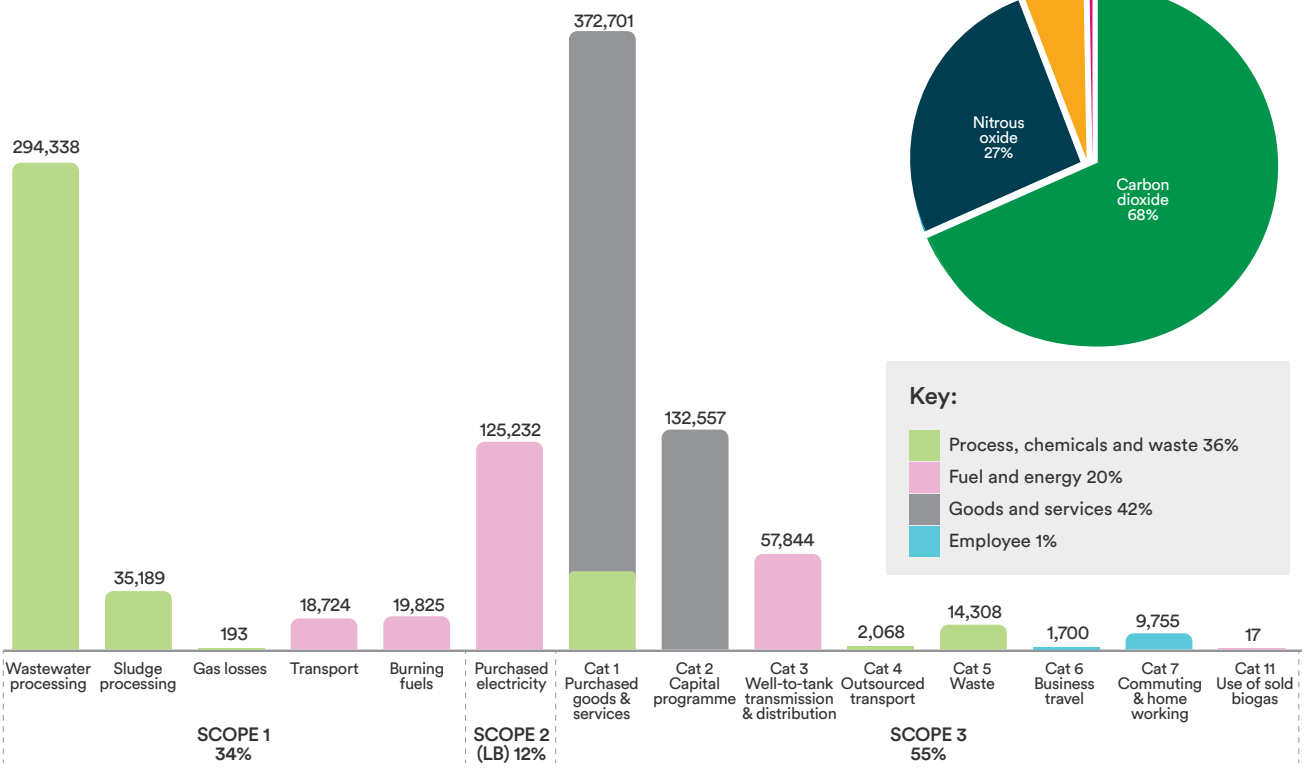
We are addressing this limitation by developing standardised sustainable solutions for which we can obtain or estimate the specific GHG emissions and also developing methods to track actual embedded emissions for capital projects as part of our AMP8 bespoke embedded emissions performance commitment.

While our extensive water and wastewater infrastructure investment programme will incur substantial GHG emissions, applying PAS 2080 carbon-management principles and more robust emissions calculations will allow us to better quantify and reduce the emissions intensity of this investment.

Employee

Employee-related emissions from business travel, commuting and homeworking total only 1% of the GHG inventory. Category 7 emissions have increased in 2025/26 because the number of employees has increased but, in the main, due to using a new company-specific model rather than a country-wide generic model. Our employees, on average, commute twice the England average and, in the North West, commutes are more likely to be by car rather than active or public transport and this is now reflected in our estimated commuting emissions.

GHG inventory chart



How we're delivering our purpose: greener

Intensity ratios

Intensity metric	Method notes	Units	2025/26	2024/25	2023/24	2022/23
Gross scope 1 and 2 GHG emissions per £m revenue	Location based	tCO_2e	**188.6**	123.6	138.7	142.8
Net scope 1 and 2 GHG emissions per £m revenue	Location based	tCO_2e	**184.3**	56.8	62.9	67.2
Net water operational emissions per megalitre water treated[1]	Location based	$kgCO_2e$	**167.0**	172.1	177.6	101.4
Net wastewater operational emissions per megalitre sewage treated [1]	Location based	$kgCO_2e$	**421.5**	198.5	209.0	158.8
Energy used per megalitre of water supplied	Distribution input	MWh	**1.548**	1.449	1.462	1.467

(1) UK water industry intensity metrics. The method for calculating these was redefined by Ofwat in 2024.

Energy strategy

Our energy management strategy has four objectives:

- Energy efficiency first – prioritising the lowest-cost, highest-impact interventions
- Maximising self-generation, storage and direct supply – reducing grid dependency and improving energy resilience
- Minimising costs
- Building supply resilience to ensure we can deliver our services

Energy remains one of our largest operational inputs, with total consumption of 1058 GWh in 2025/26. A growing population and increasingly stringent environmental performance expectations are driving up our energy use, reinforcing the need to improve efficiency and reduce our operational impact. Power and fuel use were high in 2025/26 as we acted to maintain supply and water quality to customers during the dry weather.

Through our Energy Management Programme, we have embedded energy awareness, data-driven decision-making and operational optimisation across the business. The expansion of our net zero engineering capability has accelerated the pace and impact of our energy efficiency programme, delivering measurable improvements in performance, resilience and cost efficiency, strengthening the foundation for our Energy Saving Opportunity Scheme (ESOS) Phase 3 compliance and future action plan.

Switch to clean, green energy

Renewable energy generated and low-carbon alternatives met 24.1% of our energy need in 2025/26. Most of our generation was from on-site combined heat and power (CHP) engines that convert biogas from our sludge treatment processes into low-carbon power. We also use biogas in boilers instead of natural gas and export the biogas through biomethane-to-grid facility.

We are developing a regional plan and have identified opportunities to enhance digestion performance improving biogas yield, to increase CHP efficiency and to scale up our engineered carbon capture and storage innovation that produces hydrogen and graphene from biogas. These developments, together with more switches to low-carbon alternatives, support both decarbonisation and long-term operational resilience.

During the year, we replaced 21% of the mineral diesel used in generators and mobile plant with sustainably sourced hydrotreated vegetable oil (HVO), avoiding over 3,100 tCO_2e. HVO will remain a transitional fuel as we electrify eligible assets through to 2040.

Energy efficiency actions

Energy efficiency remains central to our strategy with 24 GWh annual verified savings delivered through ESOS Phase 2 and a further 48 GWh each year of potential reductions identified in Phase 3 across operational optimisation, improved process control, pump and aeration efficiency, dewatering improvements, and enhanced driver behaviour in our vehicle fleet.

Key projects delivered improved energy efficiency across our sites. At Martholme Water Treatment Works, the installation of a non-return valve and proximity sensor enabled the safe re-instatement of the gravity feed to Burnley, saving an estimated 113 MWh and 29 tCO_2e per year. At St Helens Wastewater Treatment Works, an acid-clean of the ASP lanes restored aeration performance, improving oxygen transfer and reducing the energy needed for treatment. The technique is now proven in operation, with recurring annual benefits of around £25,000.

We continue to improve the efficiency of our transport operations through the use of telematics to monitor fuel performance and by using innovative smartphone-based driver-safety tools to improve and reward good driver behaviour. These projects demonstrate how targeted optimisation, smarter operations and focused investment can deliver substantial reductions in energy use, cost and carbon, while strengthening the resilience and performance of our services.

Energy data

	2025/26 GWh	2024/25 GWh	2023/24 GWh	2022/23 GWh
Energy use				
Electricity	854.8	822.4	819.6	818.8
Natural gas	19.8	14.2	34.1	33.6
Biogas in boilers	32.6	16.4	n/a	n/a
Stationary fossil fuels (gas oil, kerosene, diesel)[1]	59.7	49.1	51.4	55.8
Energy for transport [1]	79.4	76.0	75.8	74.8
Low-carbon alternatives (HVO, LPG, EVs)[1]	11.9	0.27	0.25	0.05
Total energy used[1]	1058.3	978.3	981.1	983.0
Electricity purchased				
Grid renewable[2]	0.003	680.1	657.6	655.6
Grid standard tariff[3]	707.0	0.13	0.09	0.13
Total purchased	707.0	680.2	657.7	655.7
Renewable energy generated				
CHP	104.3	105.2	120.4	123.0
Biogas in boilers	32.6	16.4		
Solar	48.0	42.0	47.3	46.4
Wind	5.0	4.7	5.2	5.1
Hydro	6.4	6.3	7.6	6.9
Biomethane	47.2	45.6	40.2	44.7
Total generated	243.5	220.2	220.7	226.1
Renewable energy exported				
Electricity	15.8	16.1	18.6	18.3
Biomethane	47.2	45.6	40.2	44.7
Total exported	63.0	61.7	58.8	63.0

(1) Energy calculated from volume of fuel used using net calorific values or from the distance travelled.
(2) Zero emissions electricity bundled with, or backed by separately purchased, REGO certificates.
(3) Supplier standard tariff grid electricity.
(4) All energy was consumed in the UK.