

## Emissions breakdown compared with baseline and last year (tCO<sub>2</sub>)

**Table 1 - emissions by source**

Emissions Source	2008-09	2022-23	2023-24	% change since last year	% change since baseline
Electricity (generation)	17,764	4,238	4,484	6% <b>UP</b>	75% <b>DOWN</b>
Electricity (transmission)	1,381	388	388	0%	72% <b>DOWN</b>
Natural gas <sup>1</sup>	12,937	8,608	8,279	4% <b>DOWN</b>	36% <b>DOWN</b>
Burning Oil <sup>1</sup>	1,544	513	465	9% <b>DOWN</b>	70% <b>DOWN</b>
Business travel <sup>2</sup>	9,081	1,968	2,832	44% <b>UP</b>	69% <b>DOWN</b>
Vehicle fleet <sup>3</sup>	138	44	240	452% <b>UP</b>	74% <b>UP</b>
Refrigerants	207	342	74	78% <b>DOWN</b>	64% <b>DOWN</b>
General waste	220	23	10	57% <b>DOWN</b>	96% <b>DOWN</b>
Construction waste <sup>4</sup>	6	5	38	623% <b>UP</b>	513% <b>UP</b>
Water	711	165	139	16% <b>DOWN</b>	80% <b>DOWN</b>
<b>Total</b>	<b>43,990</b>	<b>16,294</b>	<b>16,949</b>	<b>4% UP</b>	<b>-61% DOWN</b>

Overall emissions in 2023/24 marginally increased in comparison with 2022/23, for 2 principal reasons' grid electricity emissions factors were higher than in the previous year, and business travel emissions grew post-COVID, though we'' within the boundaries expected.

<sup>1</sup> Gas and oil emissions are degree day adjusted to enable comparison across different financial years

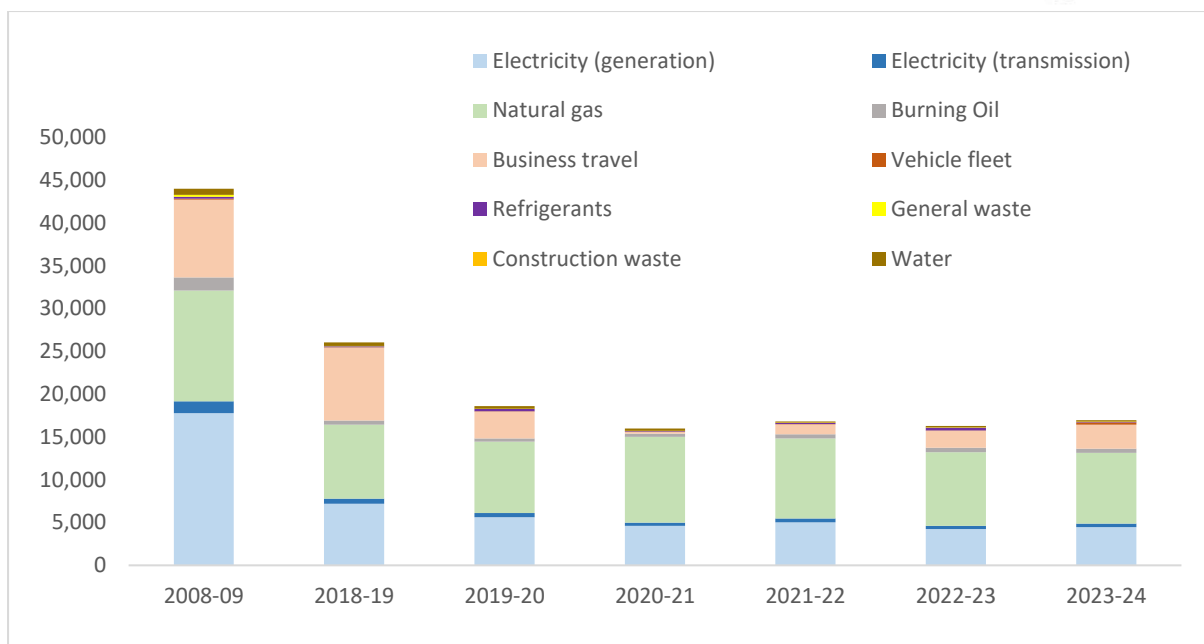
<sup>2</sup> Business travel includes radiative forcing for air travel

<sup>3</sup> Some fleet emissions have previously been included within business travel, which has been corrected

<sup>4</sup> Construction waste significantly increased in 2023/24 due to demolition of the TOB 1 building

**Table 2 - emissions by scope**

Emissions Scope	2008-09	2022-23	2023-24	% change since last year	% change since baseline
<b>Scope 1</b>	11,138	7,503	6,822	9% <b>DOWN</b>	39% <b>DOWN</b>
<b>Scope 2</b>	16,367	3,725	3,971	7% <b>UP</b>	76% <b>DOWN</b>
<b>Scope 3</b>	16,485	5,067	6,156	21% <b>UP</b>	63% <b>DOWN</b>
<b>Total</b>	<b>43,990</b>	<b>16,294</b>	<b>16,949</b>	<b>4% UP</b>	<b>61% DOWN</b>



## Energy breakdown compared with baseline and last year (kWh)

**Table 3 - Delivered Energy (including self-generation)**

Energy Source	2008-09	2022-23	2023-24	% change since last year	% change since baseline
Electricity	32,992,429	20,166,630	19,994,672	-1% <b>DOWN</b>	-39% <b>DOWN</b>
Natural gas <sup>1</sup>	50,274,695	36,244,374	33,031,984	-9% <b>DOWN</b>	-34% <b>DOWN</b>
Burning Oil <sup>1</sup>	5,584,336	2,077,997	1,886,216	-9% <b>DOWN</b>	-66% <b>DOWN</b>

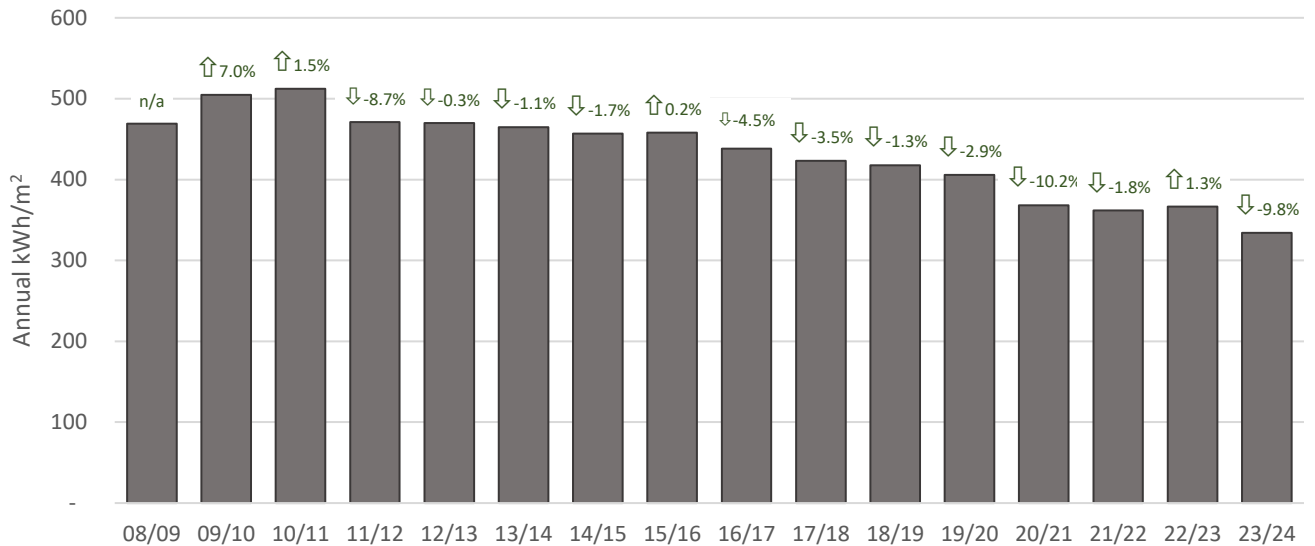
<sup>1</sup> Gas and oil emissions are degree day adjusted to enable comparison across different financial years

In 2023/24, energy use decreased for electricity, natural gas, and oil compared to 2022/23, continuing the overall trend of reduced consumption relative to the baseline year.

### Primary Energy

To allow for continued effective consumption monitoring, electricity, oil and gas use have been considered based on their primary source. Acknowledging the illogic of simply adding kWh consumption of these different utilities together; primary conversion factors were applied to arrive at the energy at source for each utility.

To monitor ongoing progress in energy consumption, we normalised usage based on weather (heating degree days), floor area (m<sup>2</sup>), and factored in the effects of efficiency and transmission losses for each utility. As shown in the figure below, our primary energy consumption has decreased by 9.8% compared to 2022/23 and is now 22% lower than the baseline year.

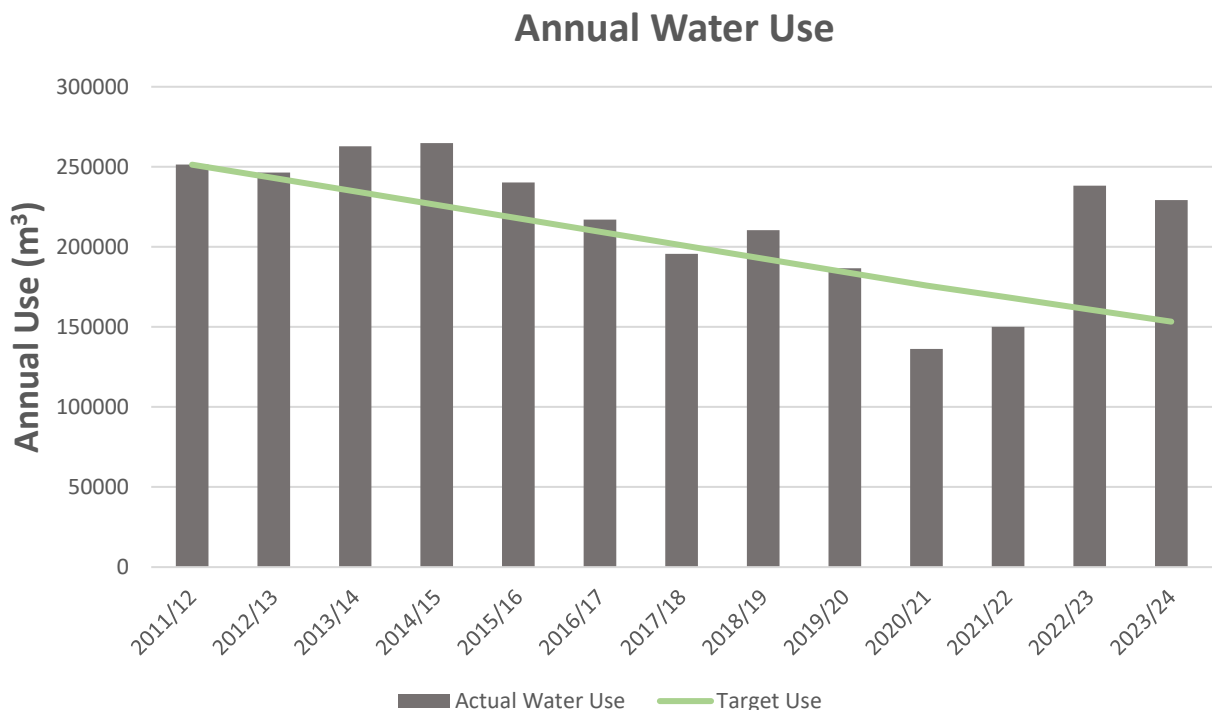


**Figure 1 - Normalised primary energy use per m<sup>2</sup>**

## Water use compared with baseline and last year (m<sup>3</sup>)

**Table 4 - annual non-residential water consumption**

	2011-12	2022-23	2023-24	% change since last year	% change since baseline
<b>Use - excluding Halls (m<sup>3</sup>)</b>	251,341	238,313	229,273	-4% <b>DOWN</b>	-9% <b>DOWN</b>



Water usage saw a significant increase in 2021/22 following post-COVID operations, surpassing target levels substantially. However, a major leak was identified at the former TOB1 site in early 2024, which now fixed, is anticipated to reduce consumption again significantly. By July 24, water consumption stood at 9% below the July 2012 baseline.

Grey and rain water re-use systems are installed in the University's Berrybrook and Health and Life Sciences buildings, which help reduce demand from the mains water supplies.

**Table 5 - annual grey and rainwater re-use**

	2011-12	2022-23	2023-24	% change since last year	% change since baseline
<b>Water re-use systems (m<sup>3</sup>)</b>	-	390.03	456	17% <b>UP</b>	n/a