Emissions breakdown compared with baseline and last year (tCO_2)

Emissions Source	2008-09	2021-22	2022-23	% change since last year	% change since baseline
Electricity (generation)	16,367	4,436	3,725	16 % ⇩	77 % ⇩
Electricity (transmission)	1,273	393	341	13 % ⇩	73 % ⇩
Natural gas*	9,249	7,006	6,604	6 % ⇩	29 % ⇩
Burning Oil*	1,544	491	513	4 % ⇧	67 % ⇩
Business travel+	5,174	755	1,216	61 % ⇧	76 % ⇩
Radiative forcing	4,045	445	795	78 % ⇧	80 % ⇩
Refrigerants ∞	207	154	342	122 % ⇧	65 % ⇧
Waste#	220	20	23	15 % ⇧	90 % ⇩
Water^	711	106	165	55 % ⇧	77 % ⇩
Total	**38,790**	**13,806**	**13,724**	**1 %** ⇩	**65 %** ⇩

In line with the Green house gas protocols, a re-classification of our emissions based on utilization into Scopes 1, 2 and 3, has been done and results of tCO2 summarized in figure 1 above. With an almost complete return to normal operations, overall emissions in 2022/23 marginally decreased in comparison with 2021/2022; and continued to decrease against the baseline year.

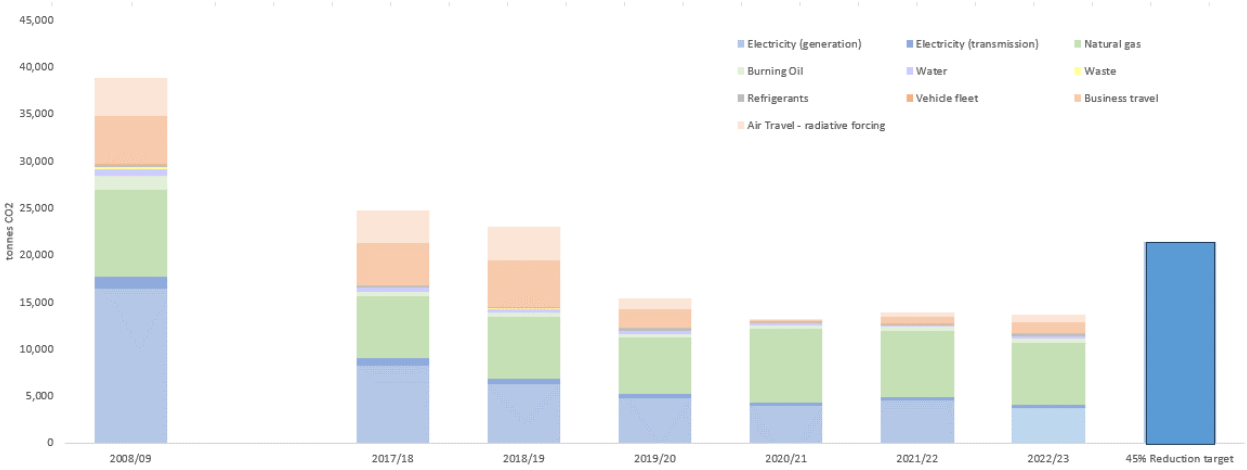
* Emissions for gas and oil have been degree day adjusted to enable comparison across different financial years

+ Business travel includes vehicle fleet

∞ Emission level tends to be more variable year to year.

Emisisons from construction waste are not included, due to their wide annual variability and small impact. Analysis indicates construction waste emissions over the last 5 years range between 1.9 tCO2 and 15.5 tCO2/annum.

^BEIS carbon emission factor for water revised for 2021/22 and is significantly lower than in previous years.



Energy breakdown compared with baseline and last year (kWh)

Delivered Energy (including self-generation)

Energy Source	2008-09	2021-22	2022-23	% change vs average 2018-20	% change since baseline
Electricity	32,992,449	21,631,643	20,166,630	7 % ⇩	39 % ⇩
Natural gas*	50,274,695	38,249,628	36,244,374	5 % ⇩	28 % ⇩
Burning Oil*	5,584,336	1,988,162	2,077,997	5 % ⇧	63 % ⇩

* Consumption for gas and oil have been degree day adjusted to enable comparison across different financial years. The energy use in 2022/23 compared to 2021/22 decreased for electricity and natural gas, but burning oil consumption increased; while the trend of continued overall reduction in consumpotion against the baseline year continued.

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 track continuos progress in energy consumption, we normalised consumption against weather (heating degree days), floor area (m^2), and also accounted for the impacts of efficiency and transmission losses on each utility. Comparing the results obtained to 2021/2022 as shown in the figure below illustrates that our primary energy consumption increased by about 1% (which was the year of gradual return to normal after the pandemic), but still is 22% lower than our baseline year.

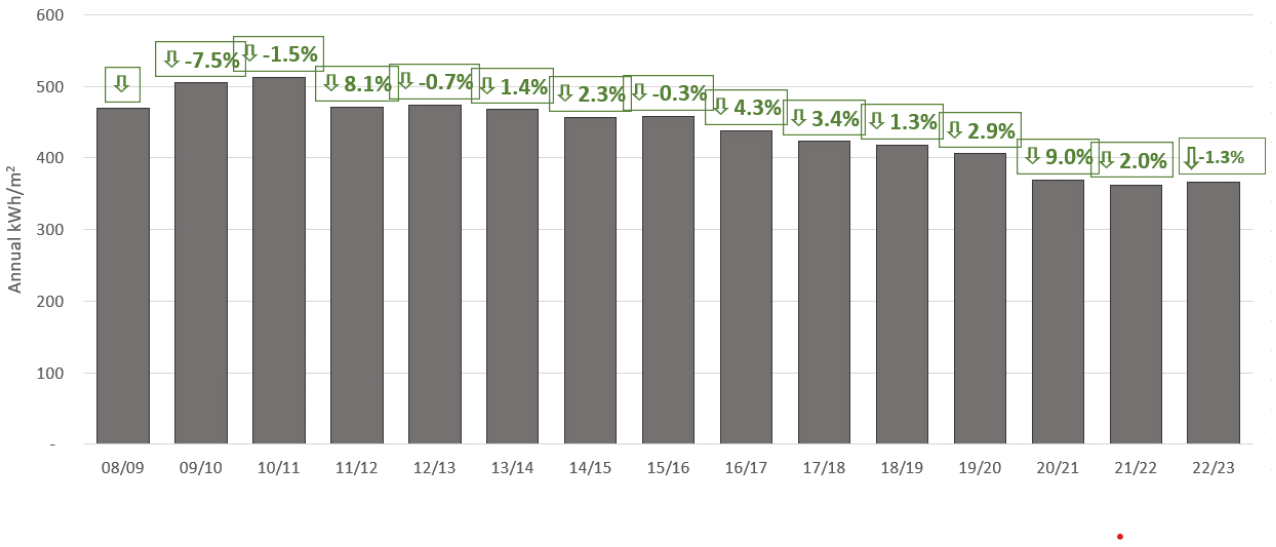
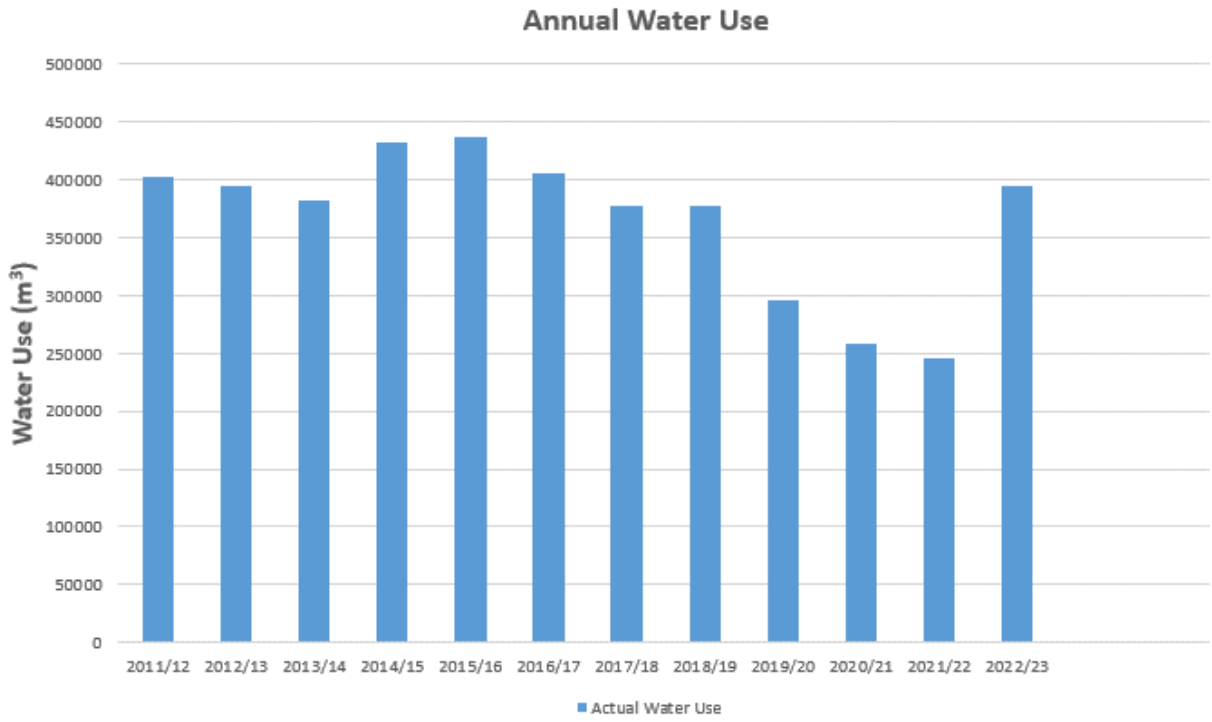


Figure 1 - Normalised primary energy use per m2

Water use compared with baseline and last year (m^3)

	2011-12	2020-21	2022-23	% change since last year	% change since baseline
Use - excluding Halls (m^3)	251,341	144,052	241,047	67 % ⇧	4 % ⇩



Water use was observed to increase greatly, which seemed like a direct reaction to return normal operations, back to pre-COVID levels over the last year; but seemed to be further exercabated by possible underground leaks. Following the improved metering spread and real time monitoring, isolation of areas of possible compromise has commenced, and work is currently ongoing to address these with sight set on ensuring the ongoing trend of reduced consumption against baseline is sustained.

In addition, a water re-use monitoring has been implemented and presented in the table below with contributions coming from the University's Berrybrook and Health and Life Sciences buildings. Progress against this years's numbers would be observed subsequently with the potential for improvement in this regard to be encouraged.

	2011-12	2020-21	2022-23	% change since last year	% change since baseline
Water re-use systems (m^3)	-	-	390.03		