IChemE Net Zero Emissions Report 2022

This report provides the emissions calculations for IChemE in 2022 and relevant progress towards IChemE's commitment to net zero by 2025.

IChemE's commitment to net zero by 2025

In November 2022, IChemE set out its position statement on climate change which included a commitment to develop plans to achieve net zero emissions from its own operations globally by 2025 and to report progress against this target on an annual basis.

Emissions 2022

The table below summarises IChemE's greenhouse gas (GHG) emissions in 2022.

Table 1. Annual emissions by facility

Name of facility	Annual energy consumption (GJ) *	Scope 1 and 2 emissions (tCO_2e) **	Emissions intensity ratio ($kgCO_2e/m^2$) ***
Davis Building, Rugby	1217.6	29.8	14
Birdcage Walk, London (n/a in 2022)			
Greencoat Place, London	58.36	3.1	~ 54
1A Manor Road, Rugby	11.9	~ 0.3	~ 2
Kuala Lumpur	18.2	3.3	~29
Melbourne (n/a from 03/02/2022)	n/a		
Total	**1306.1**	**36.4**	**Weighted average: 15**

NB: Due to rounding, some totals may not correspond with the sum of the separate figures.

Table 2. Annual emissions by country

Country	Annual energy consumption (GJ) *	Scope 1 and 2 emissions (tCO_2e) **	Emissions intensity ratio ($kgCO_2e/m^2$) ***
United Kingdom	1287.9	33.2	14
Malaysia	18.2	3.3	30
Australia	n/a		
Total	**1306.1**	**36.4**	**Weighted average: 15**

Table 3. Emissions intensity per full-time equivalent (FTE) employee (n = 86.3) as reported in Annual Financial Statement 2022

Total annual energy per FTE (GJ / FTE)	2022 Emissions per FTE ($kgCO_2e$ / FTE)
15.1	422

From 2021 to 2022 IChemE's total energy usage increased by 14% from 1,148GJ to 1,306GJ. This increase was offset by a 9% improvement in the UK's national grid emission factor and thus the total CO_2 emissions (scope 1 and scope 2) decreased by 4% from 37.9 tCO_2e to 36.4 tCO_2e over the same period.

Compared to the organisation's baseline emissions for 2019, the total energy use decreased by 15% from 1,529GJ. The resulting scope 1 and scope 2 emissions for 2022 is 46% less than the 2019 baseline.

Next steps in 2023

In 2023, the working group intends to collect data on Scope 3 emissions. These emissions are the indirect emissions that occur elsewhere in the economy as a result of IChemE actions. For example, emissions associated with printing and distributing copies of *The Chemical Engineer* are considered to be Scope 3 emissions. While the printing and logistics companies are primarily responsible for these emissions, they only occur as a direct result of IChemE activity.

Estimating Scope 3 emissions requires the working group to determine material emissions sources in the first instance, and then to examine data availability to support the calculations, prior to collecting the data and completing the calculations.

Footnotes:
* Greenhouse gas emissions are divided into three categories. Scope 1 emissions are direct emissions from owned or controlled sources; Scope 2 emissions are indirect emissions from the generation of purchased or acquired electricity, heating and cooling; Scope 3 emissions are the indirect greenhouse gas emissions from sources not directly owned or controlled by an organisation.

** tonnes (t) of carbon dioxide (CO_2) equivalent (e)

*** kilograms (kg) of carbon dioxide (CO_2) equivalent (e)