



Tuesday, 23 September 2025

Report of Councillor Rhys Baker,  
Cabinet Member for Environment and  
Waste

## Update on Carbon Emissions in respect of Council Operations 2024/25

### Report Author

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### Purpose of Report

The climate and carbon dashboard provides an overview of South Kesteven District Council's operational carbon emissions for the 2024/25 period, including progress against the Council's carbon reduction target of at least 30% by 2030.

### Recommendations

#### That the Committee:

- 1) Notes the reported carbon emissions for the 2024/25 period which cover operations from South Kesteven District Council buildings and vehicles.

### Decision Information

Does the report contain any exempt or confidential information not for publication?

No

What are the relevant corporate priorities?

Sustainable South Kesteven  
Effective council

Which wards are impacted?

All wards

## 1. Implications

Taking into consideration implications relating to finance and procurement, legal and governance, risk and mitigation, health and safety, diversity and inclusion, safeguarding, staffing, community safety, mental health and wellbeing and the impact on the Council's declaration of a climate change emergency, the following implications have been identified:

### ***Finance and Procurement***

- 1.1 There are no direct finance or procurement implications from the report. A specific climate change reserve has been approved by Council that can be utilised to fund specific carbon and energy reduction initiatives. Any projects and initiatives to reduce carbon emissions and seek financial support are considered on a case by case basis.

*Completed by: David Scott – Assistant Director of Finance and Deputy s151 Officer*

### ***Legal and Governance***

- 1.2 To demonstrate good governance and leadership on climate related issues in South Kesteven, it is important that Members are updated on the Council's annual carbon emissions and on progress towards the declared carbon reduction target for council operations.

*Completed by: James Welbourn, Democratic Services Manager*

### ***Climate Change***

- 1.3 The climate and carbon dashboard sets out the emissions reductions seen in the 2024/25 financial year. There is an overall reported reduction in the year of 29.24% against the baseline.

*Completed by: Louise Case, Sustainability Projects Support Officer*

### ***Property Services***

- 1.4 The Council has noted a significant uplift in carbon emissions relating to the refrigerants category, linked to several reported leaks of refrigerant gas. As further detailed within the report, work has been completed to repair the identified systems. The Calorex units at the Grantham Meres Leisure Centre have been removed under planned works for the Public Sector Decarbonisation Scheme,

whilst equipment at Mowbeck House has since been repaired, pressure tested and recommissioned.

*Completed by: Gyles Teasdale, Head of Property Services and IT*

## 2. Background to the Report

- 2.1. In September 2019, South Kesteven District Council formally declared a climate emergency with cross party support. As part of this declaration, the Council agreed to reduce its operational carbon emissions by at least 30% by 2030, and to endeavour to become net zero as soon as viable before 2050. To monitor progress against this target, an annual carbon emissions report is produced to review any change in the emissions arising from Council operations against the baseline year of 2018/19.
- 2.2. Greater understanding of changes in the Council's annual carbon emissions is essential to track progress towards the Council's carbon reduction target of at least 30% by 2030 and to net zero carbon as soon as viable before 2050.
- 2.3. Figure 1 provides a dashboard overview of South Kesteven District Council's carbon emissions for the period covering April 2024 - March 2025, including the use of gas and electricity in council owned buildings, emissions from the vehicle fleet and the operation of three Leisure Centres.

## South Kesteven District Council Emissions 2024/2025



1682  
Leased Asset CO<sub>2</sub>e  
**-46.75%**  
Leased asset change from 2018/19 baseline

**-29.24%**  
Difference from baseline %

63.6  
Business travel CO<sub>2</sub>e  
**-35.80%**  
Business travel change from 2018/19 baseline



1957.1  
Fleet CO<sub>2</sub>e  
**2.04%**  
Fleet change from 2018/19 baseline

**-2222.28**  
Difference from baseline tonnes

6.69  
Water CO<sub>2</sub>e  
**33.74%**  
Water change from 2018/19 baseline



1,136.68  
Gas CO<sub>2</sub>e  
**-15.43%**  
Gas change from 2018/19 baseline

**5,377.72**  
Total CO<sub>2</sub>e Tonnes

0.76  
Waste CO<sub>2</sub>e  
**-74.57%**  
Waste change from 2018/19 baseline



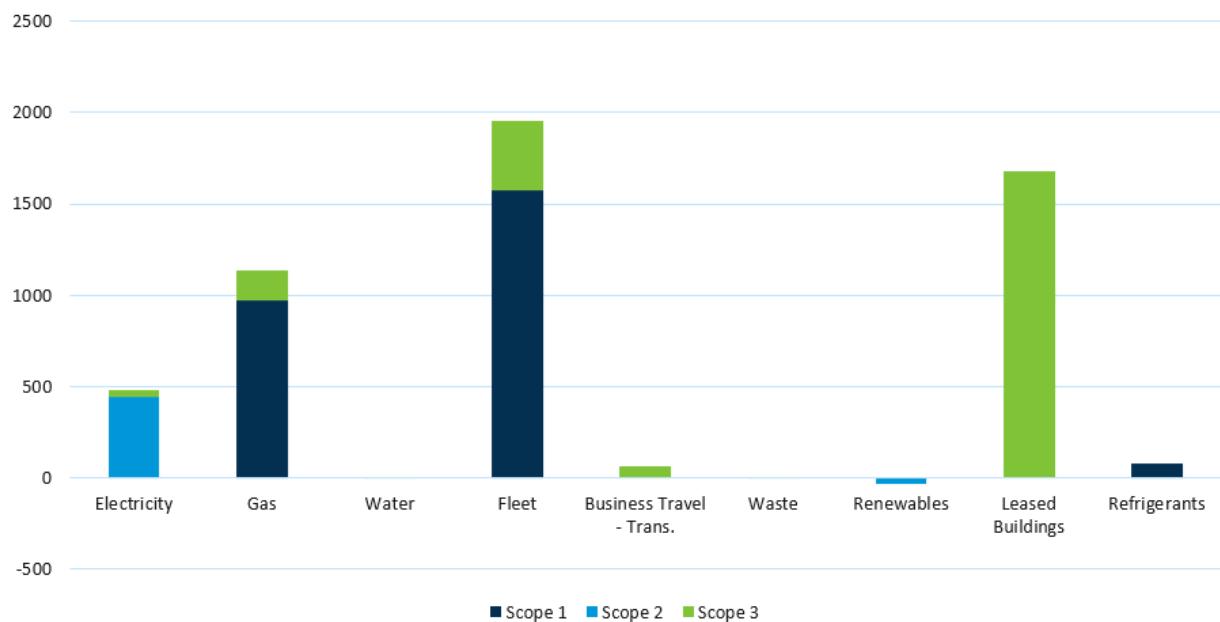
481  
Electric CO<sub>2</sub>e  
**-55.09%**  
Electric change from 2018/19 baseline

**6460**  
Target Emission

78.13  
Refrigerants CO<sub>2</sub>e  
**3806.50%**  
Refrigerants change from 2018/19 baseline



2.4. The Council's overall footprint for the 2024/25 financial year is 5,378 tCO2e. This is a decrease of 302 tonnes of carbon since the last reporting year and an overall reduction in carbon emissions of 29.24%, or 2222 tonnes, since the baseline year. Greenhouse gas (GHG) emissions are categorised into one of three different scopes by the GHG Protocol. A breakdown of the Council's emissions by scope can be seen below in Figure 2.

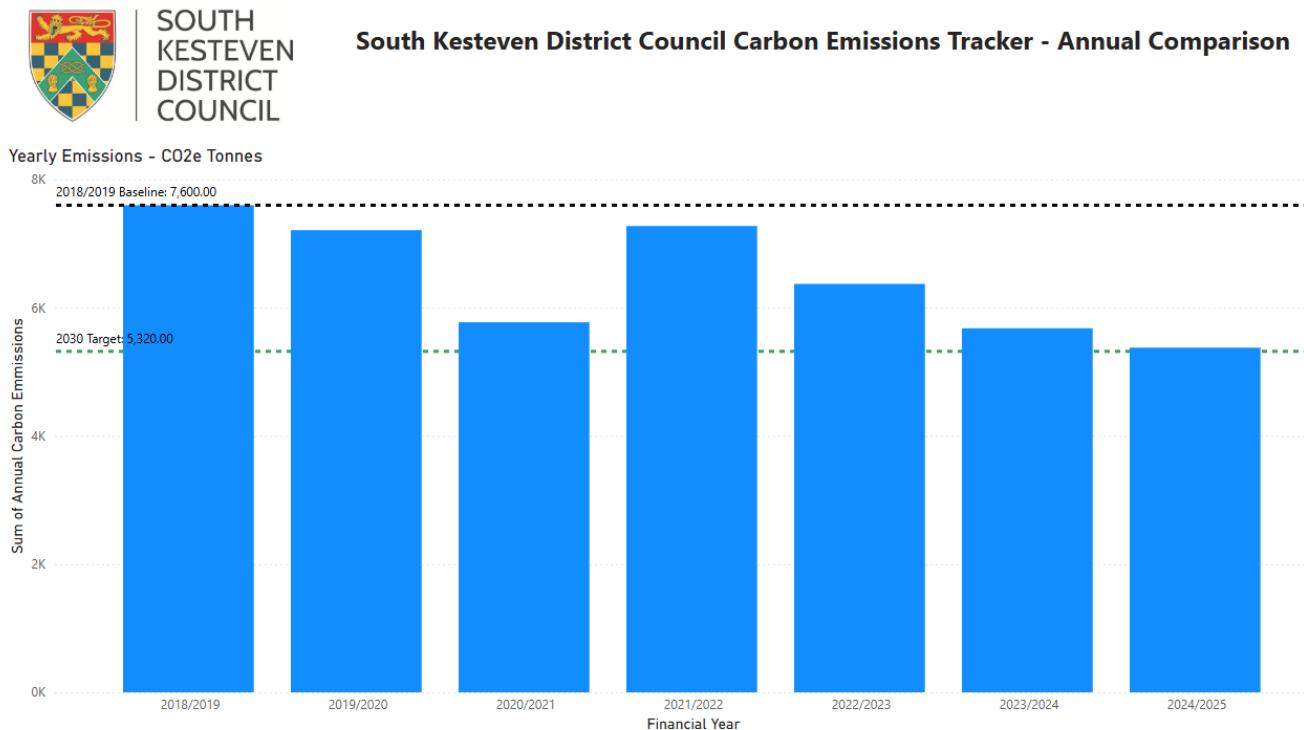


2.5. Scope 1 covers the direct emissions from sources that the Council owns or controls. For example, the emissions resulting from fuel use in the vehicle fleet.

2.6. Scope 2 are the emissions that the Council indirectly cause, resulting from the production of the energy we purchase and use. The emissions resulting from the generation of the electricity that we use in our buildings would fall into this category.

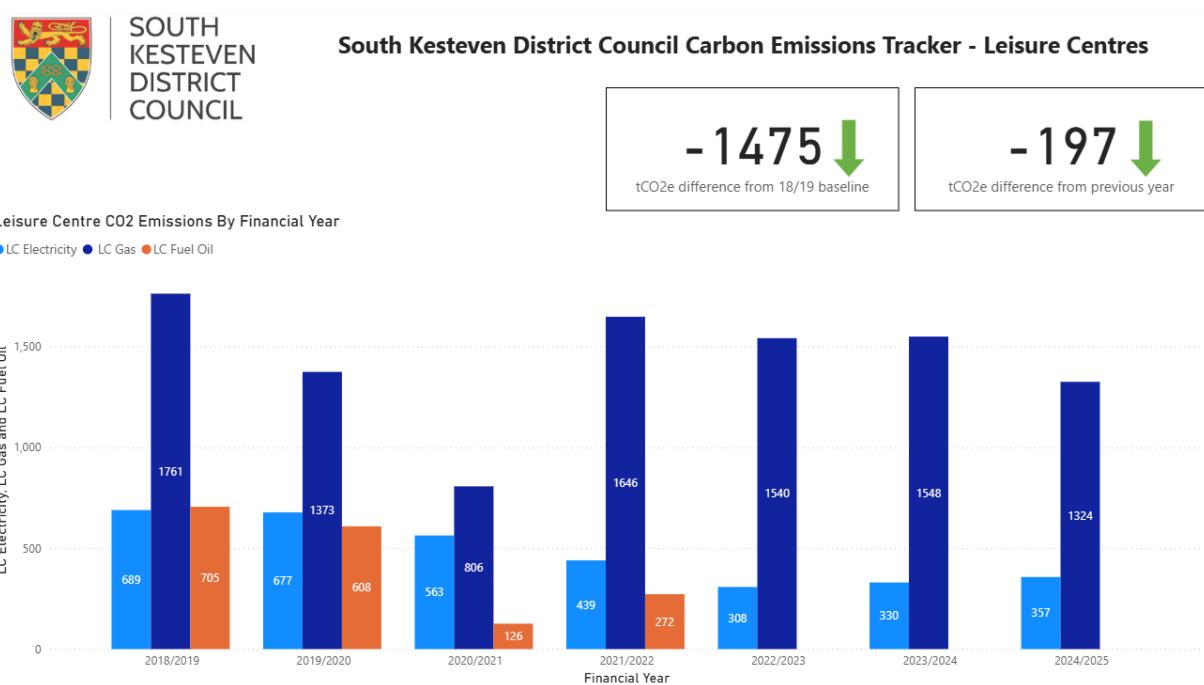
2.7. Scope 3 emissions include all sources not within the scope 1 and 2 boundaries. Scope 3 encompasses emissions that are not produced by the Council itself and are not the result of activities from Council owned or controlled assets. Instead, Scope 3 emissions occur in the value chain.

2.8. The Council's overall progress in yearly carbon emission tracking can be seen below in Figure 3.



### Leisure Centres

2.9. The Council has seen a sustained annual reduction in carbon emissions reported for its leisure centres. Leisure centres were responsible for 41% of carbon emissions in the Council's baseline. This has reduced to 31% for the 2024/25 reporting year, as seen in Figure 4 below:



2.10. This has been partly attributed to the return of the Deepings Leisure Centre to Lincolnshire County Council in 2021, alongside the completion of several projects which has further decreased the emissions associated with South Kesteven's leisure facilities. These changes include:

- the installation of new pool covers to all pools in Grantham Meres, Stamford and Bourne Leisure Centres, funded via the Swimming Pool Support Fund.
- the upgrade of the 3G pitch floodlighting to LED at the Grantham Meres Leisure Centre, facilitated by the Council's Climate Change Reserve
- an upgrade of the lighting to LED in the small and large sports halls at Grantham Meres Leisure Centre
- The installation of new solar panels at the Grantham Meres Leisure Centre.

2.11. A substantial project is currently underway to further decarbonise facilities at the Grantham Meres Leisure Centre. The Council previously secured £3,587,500 in Government funding, granted by The Department for Energy Security and Net Zero as part of its Public Sector Decarbonisation Scheme (PSDS), to support the installation of an energy-efficient, low-carbon heating system to replace the current inefficient gas boilers. Delivered in partnership with leisure development specialists Alliance Leisure and renewable energy specialist Leisure Energy, the £4 million project will use pioneering Air Source Heat Pump Technology to dramatically reduce operational costs, boost efficiency and cut carbon emissions.

2.12. The Net Zero Pod (NZP) will make use of carbon dioxide (CO<sub>2</sub>) as a natural refrigerant due to its low global warming potential (GWP) and reduced environmental impact, when compared to alternative refrigerants.

2.13. It is expected that the installation of the NZP will reduce carbon emissions by a predicted 550 tonnes once complete.

#### Electricity use

2.14. The Council has observed a 55.09% reduction in carbon emissions associated with electricity use since the baseline year of 2018/19. This can be attributed to a reduction in overall electricity consumption across all Council occupied assets by 38% compared to the baseline, as well as the continued decarbonisation of the electricity grid at a national level, thanks to increased contribution from renewable electricity generation. This equates to a reduction of 590.6 tonnes of carbon, as shown in Figure 5 below.

2.15. The Council also has a current contract for green electricity. This means that the electricity the Council receives is generated by either wind, wave or solar generation sources. These renewable forms of energy generation lead to lower

overall greenhouse gas emissions than non-renewable fuel sources like natural gas.

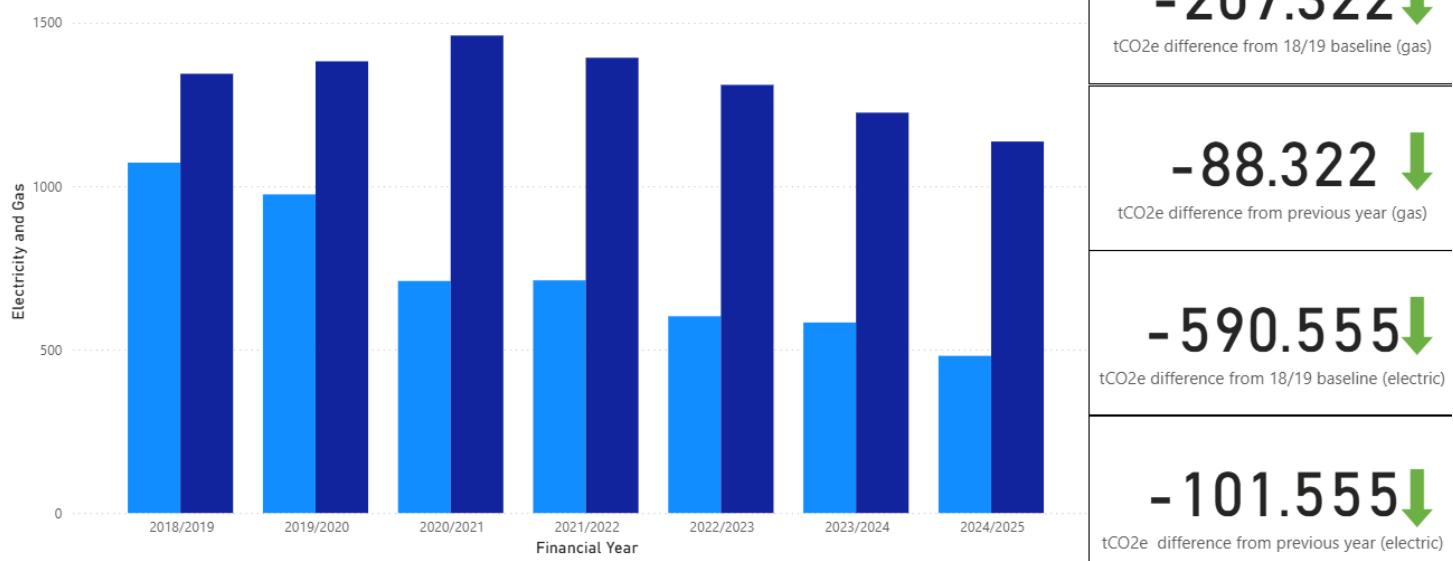
2.16. This reduction has been supported by several key changes:

- Deployment of energy efficient LED lanterns across the Council's Streetlights as part of an ongoing commitment to reduce energy consumption. The Council manages almost 4,000 streetlights in the district. So far more than 3,550 have been upgraded to LED, more than 90% of the total stock. Since the upgrades started in 2022, the Council has seen a 62.31% reduction in the emissions attributed to Streetlights compared to the 2018/19 baseline.
- Overall reduction in electricity consumption from HRA assets included within the reporting boundary
- Energy efficiency projects including upgrade of lighting in Guildhall Arts Centre and Wharf Road car park to energy efficient LEDs

2.17. It is important to note that reported emissions in the electricity category are largely attributed to the Council's General Fund assets, with a proportion of emissions occurring from the energy consumption of communal areas of properties maintained under the Housing Revenue Account. The percentage of electricity consumed by communal HRA properties in 2024/25 is 36.3%.

SK Gas & Electric CO2 Emissions By Financial Year

Electricity ● Gas



### Gas Use

2.18. Gas consumption across the Council has decreased over the last financial year, further reducing the Council's carbon emissions for the category by 15.43% since the baseline. This equates to an overall reduction of 207 tonnes of carbon since

2018/19, as shown in the above Figure 5. A total of 80.6% of gas consumption for 2024/25 can be attributed to communal HRA properties.

2.19. These positive changes have been supported by several changes since the last report:

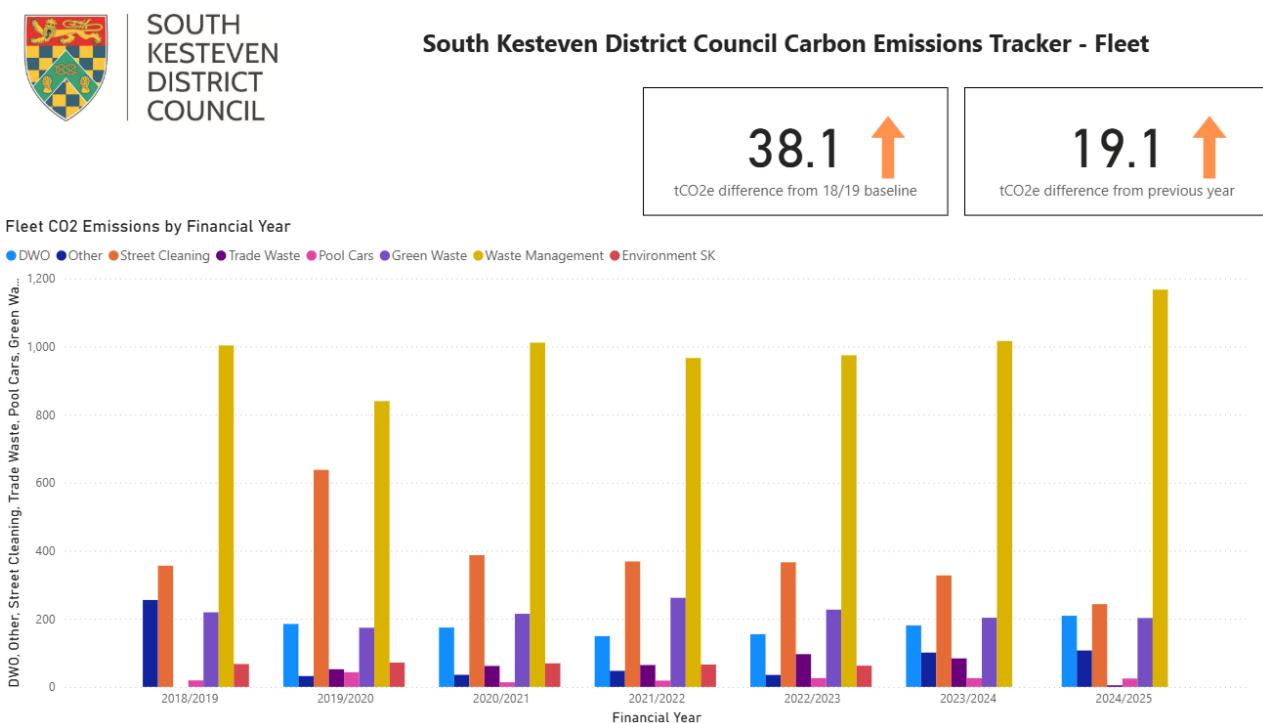
- Relocation of the Council main offices to The Picture House, which benefits from being electrically heated and cooled, and associated disposal of previous premises
- Upgraded boilers installed at Guildhall Arts Centre resulting in a large reduction in gas consumption

### Water Use

2.20. The emissions associated with 2024/25 water consumption have increased by 33.74% from a reported 5 tCO2e in the baseline year, to 6.7 tCO2e in the current reporting period. The Council has acknowledged a low confidence in the data supplied for water consumption of its buildings. Work is currently being undertaken to better understand known discrepancies and identify the potential absence of data in relation to metered water charges.

### Vehicle Fleet

2.21. Consistent with the last reporting year, the fleet remains the greatest single emission category with 36% of the Council's emissions attributed to this category.



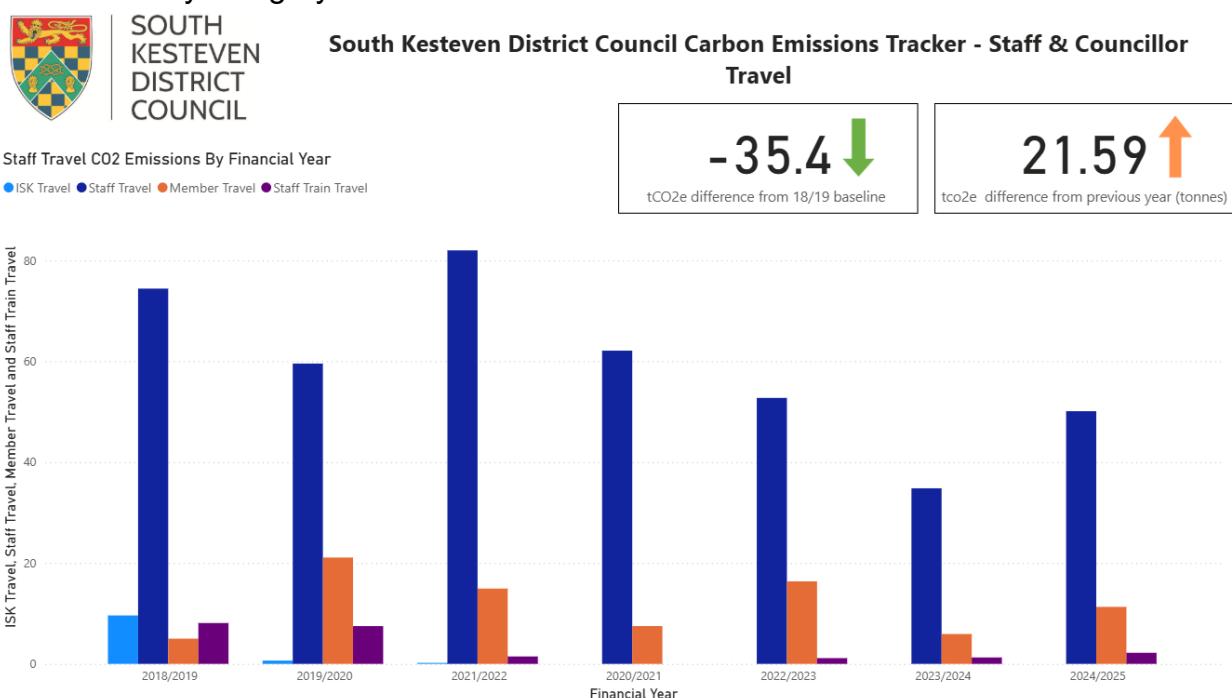
2.22. Figure 6 (above) shows an annual summary of fleet-related emissions, categorised into the Council's different departments. In 2023, the Council's wholly owned company EnvironmentSK was brought in-house, so these emissions now sit in the 'other' category.

2.23. Whilst fuel consumption and associated carbon emissions has remained broadly static, the adoption of a Green Fleet Strategy and an accompanying action plan has meant that future priorities will focus on reducing emissions associated with the fleet:

- A new waste round will be launched in September 2025. This is set to reduce waste collection vehicles by one round (vehicle) per waste stream, which is estimated at a 5.15% overall fuel reduction across waste vehicles.
- Furthermore, the implementation of the actions of SKDC's Green Fleet Strategy, approved by Cabinet in February 2025, will encourage more efficient vehicle use and manage demand to facilitate an overall reduction in fuel consumption, review the provision of alternative fuels and implement further electric vehicles within the Council's fleet.

### Business Travel

2.24. Business travel conducted by staff and councillors in personal vehicles has reduced by 35.80% since the baseline year as more meetings and conferences are now held online. However, the category has seen a significant increase of 51.30%, or 21.6 tonnes of carbon, since the previous 2023/24 reporting year. This is partially the result of increased consultant mileage under Building Control and the region-wide Rough Sleeper initiative. Figure 7 provides a breakdown of staff travel by category.



2.25. As part of the Green Fleet Strategy, staff travel within own vehicles will be reviewed in further detail to understand where reductions in travel or use of SKDC vehicles can be used to travel to complete duties.

### Refrigerants

2.26. Hydrofluorocarbons (HFCs) are a category of synthetic chemicals primarily used as refrigerants in air conditioning and refrigeration systems. Refrigerant gases contribute to carbon emissions if they are seen to escape out of internal systems' equipment or pipe work into the atmosphere.

2.27. A record logbook is maintained for all equipment containing fluorinated gases. The refrigerant gases used within systems operated by SKDC are all classed as HFCs - specifically R407c, R410a and R32. Whilst these blends do not contain chlorine and do not deplete the ozone layer, they have a high global warming potential. This means that they can trap significant amounts of heat in the atmosphere.

2.28. The Council can confirm that there has been an uplift in refrigerant-related carbon emissions by 78 tonnes for 2024/25, attributed to several refrigerant gas leaks from equipment over the course of the current reporting period. The most significant of which have been attributed to two Calorex units on site at the Grantham Meres Leisure Centre. These poolside Air Handling Units (AHUs) are already set to be replaced under the ongoing Public Sector Decarbonisation Scheme (PSDS) as part of a wider low-carbon heating project. Table 1 expands on the maintenance response action that is already underway:

Location	Refrigerant	Action being taken
Mowbeck House BT Room 1 (AC unit)	R410A	The system has been pressure tested, refilled and recommissioned.
Grantham Meres Leisure Gym Unit 3	R410A	This unit has been repaired and recommissioned.
Grantham Meres Leisure Pool Calorex Unit	R407C	Both Air Handling Units will be removed as part of the planned works for the PSDS scheme.
Grantham Meres Main Leisure Pool Calorex Unit	R407C	

2.29. The issue of low refrigerant in the systems, indicative that a leak had occurred, were raised via a routine service report for each location, and orders were raised to repair the remaining units.

2.30. Overall, this represents an increase of 3806.50% since the baseline and places the contribution of refrigerants at 1% of the Council's total emissions for 2024/25. For reference, the carbon attributed to this category in the 2018/19 baseline was measured at 2 tonnes.

## Waste

- 2.31. 0.76 tonnes of carbon was attributed to the waste category over the 2024/25 reporting period, demonstrating a 74.57% reduction from the baseline and a decrease of 1.37 tonnes since the last reporting year.
- 2.32. It is important to note that there has been a significant change in the government emission conversion factor for waste for the 2024 reporting year. Previously named 'combustion' in prior reporting years, this category has been renamed to 'incineration with energy recovery' to clarify that energy recovery is assumed to take place.
- 2.33. The emissions attributed to SKDC as the organisation generating the waste cover only the collection of waste from its site and deposit at the first point of processing. The emissions from combustion are zero for SKDC (as the reporting organisation), as these emissions should instead be allocated to the end user of the energy. At present there is no factor for incineration without energy recovery, but this may be added in future years.

## Wider Initiatives

- 2.34. Other projects that sit outside of the scope of the Council's annual carbon report, further demonstrate its commitment to reducing the district's wider environmental impact:
  - Under the Social Housing Decarbonisation Fund (SHDF) Programme, the Council as of April 2025 has upgraded 367 of its Housing Revenue Account (HRA) dwellings with energy efficiency measures. These include upgrades such as the installation of solar PV arrays, cavity wall extractions and re-fills, loft insulation upgrades and ventilation measures. Whilst the majority of HRA properties are excluded from the Council's carbon reporting, as the Council is not directly responsible for the consumption of energy in tenanted dwellings, the completion of the SHDF Programme will have a significant impact on the energy efficiency of the Council's housing stock. By targeting the lowest performing properties, the energy and carbon savings from upgrades will be significant and help to address issues of fuel poverty for tenants.
  - The Home Energy Upgrade Scheme, comprised of two funding streams, offers a range of fully funded energy efficient retrofit home improvements to eligible homeowners in South Kesteven and helped to upgrade 40 properties within the district to the end of April 2025. The Home Energy Upgrade Scheme is from a consortium of councils which include City of Lincoln Council, North Kesteven District Council, South Kesteven District Council and West Lindsey District Council. The scheme helps residents

living in homes with poor energy efficiency ratings of EPC band D or below who also have a low income of under £30,000 or receive means tested benefits. The scheme will deliver external wall insulation, cavity wall insulation, loft insulation, solar panels and high heat retention electric storage heaters for properties that are suitable and fit the criteria.

### **3. Key Considerations**

- 3.1. The report is provided for information rather than decision. Members are asked to take note of the reported emissions and associated emission categories.

### **4. Other Options Considered**

- 4.1 There is no statutory obligation to monitor or report on carbon emissions which arise from Council operations, nor to set or adhere to a reduction in carbon emissions. Nevertheless, regular review of carbon emissions is considered good practice to monitor progress against the Council's declared target to reduce carbon emissions.

### **5. Reasons for the Recommendations**

- 5.1. The report is provided for information to track progress towards the Council's carbon reduction target.

### **6. Appendices**

- 6.1 Appendix 1 Carbon Dashboard 2024-25