

# Conwy County Borough Council Net Zero Carbon Performance Report 2022/23

## Table of Contents

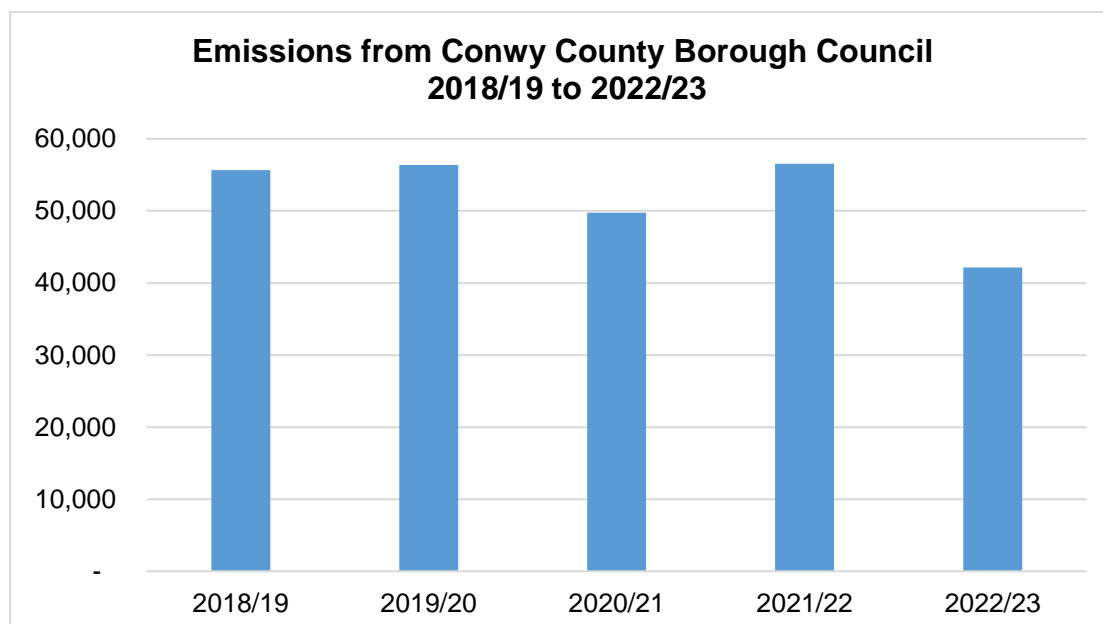
1.0 Carbon Equivalent Performance - Overall.....	2
2.0 Carbon Equivalent Performance - Buildings.....	5
3.0 Carbon Equivalent Performance - Schools .....	6
4.0 Carbon Equivalent Performance – Fleet .....	7
5.0 Carbon Equivalent Performance – Street Lighting & CCTV .....	8
6.0 Carbon Equivalent Performance – Staff Travel .....	9
7.0 Homeworking .....	11
8.0 Carbon Equivalent Performance – Supply Chain .....	12
9.0 Land Use.....	13

## 1.0 Carbon Equivalent Performance - Overall

The chart below details Conwy County Borough Council's emissions between 2019/20 and 2022/23. The activities emitting carbon include:

- Energy & water consumption from buildings we own and lease;
- Fuel consumption from the Council's fleet of vehicles;
- Fuel consumption from staff using their cars for business travel;
- Energy consumption from street lighting & CCTV;
- Fuel consumption from staff commuting to & from their place of work;
- Treatment of waste from our own operations;
- Energy & fuel consumed in our supply chain.

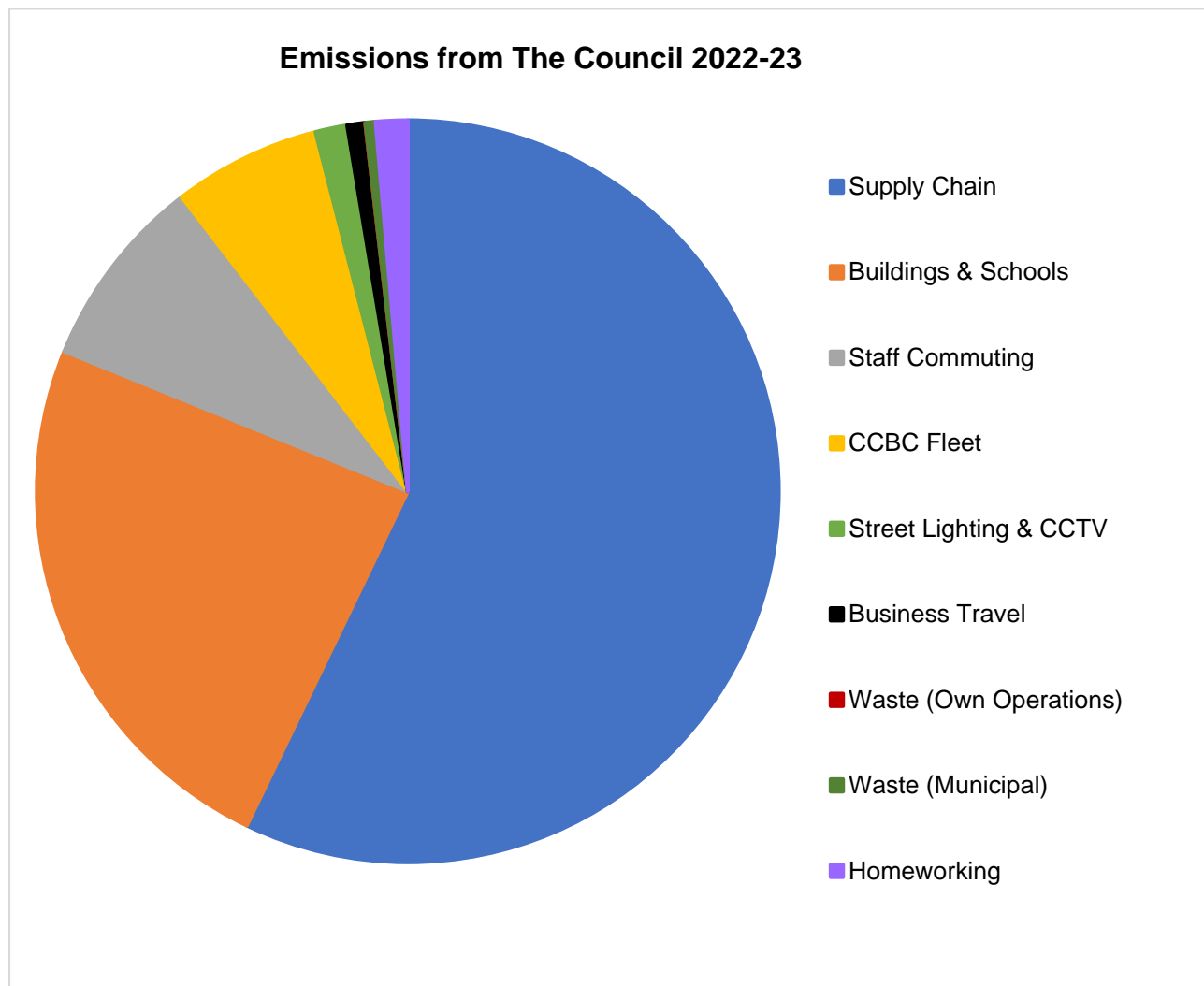
Conwy County Borough Council's total emissions in 2022/23 was 42,145 tCO<sub>2</sub>e. When we take account of the carbon sequestered through land use, this figure is reduced to 41,688 tCO<sub>2</sub>e.



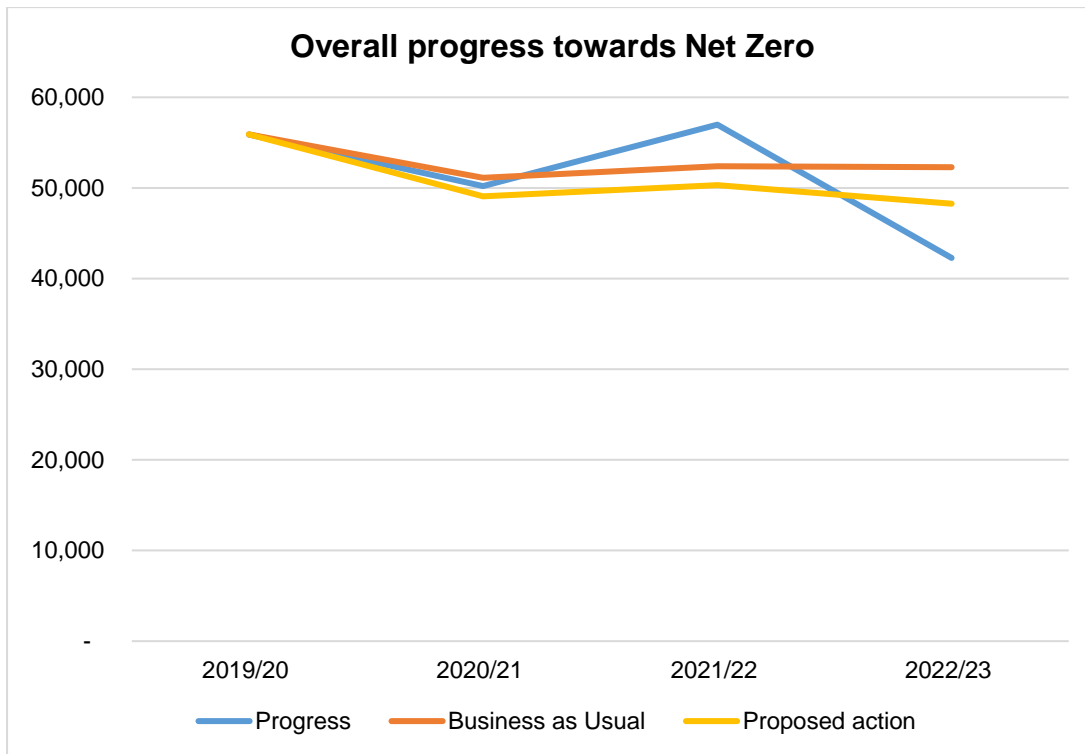
At the end of 2022/23, the Council's emissions had reduced by 25.2% (14,221 tonnes) when compared with the baseline year of 2019/20. This reduction is mainly due to a decrease in emissions from supply chain following the use of updated emissions factors for each spend category.

Reductions in heating fuel consumption also contributed to the reduction in emissions due to 2022/23 being, on average, warmer.

As shown in the chart below emissions from the supply chain accounted for the majority of the Council's emissions in 2022-23 at 58% (24,532 tonnes). This is followed by buildings at 24.5% (10,309 tonnes) and then staff commuting at 8.6% (3,612 tonnes).



The chart below details Conwy County Borough Council's progress towards Net Zero carbon emissions from 2019/20 to 2022/23 and shows what emissions would have been if we had carried on with business as usual and where emissions were projected to be if we completed the proposed actions in our Net Zero Plan.



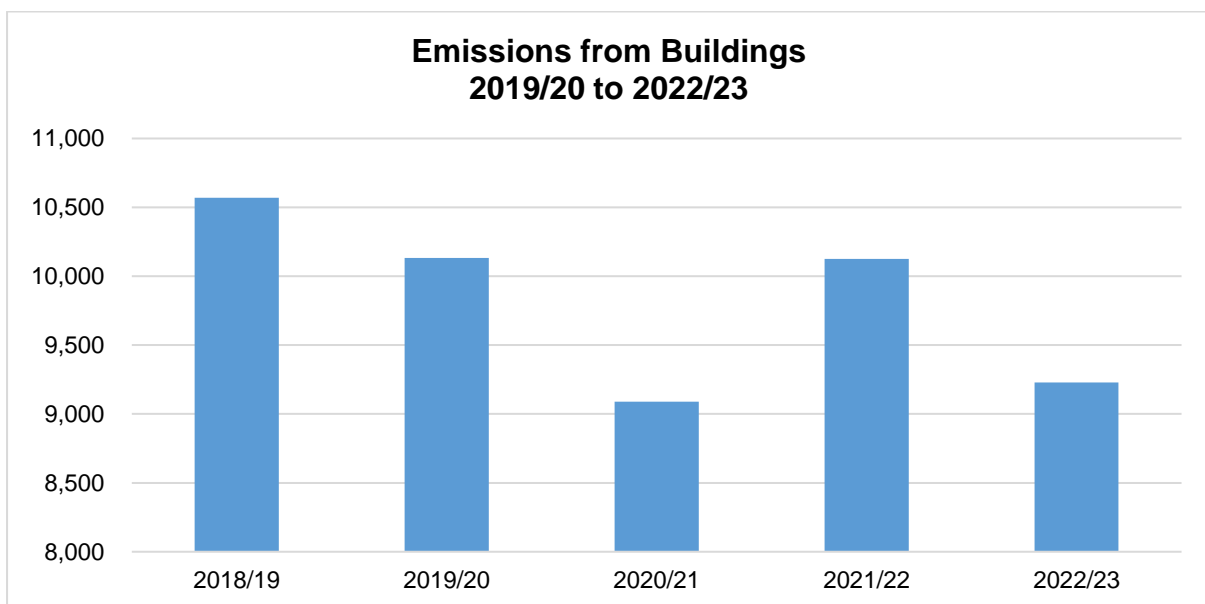
## 2.0 Carbon Equivalent Performance - Buildings

The chart below details Conwy County Borough Council's emissions from energy consumption and water in its buildings between 2019/20 and 2022/23.

At the end of 2022/23, Conwy County Borough Council had reduced its carbon emissions from its buildings by 10% (1,063 tonnes) when compared with the baseline year of 2019/20.

Contributing factors to this reduction include:

- Continued support for homeworking;
- A 1% reduction in the number of buildings. In 2019/20 we occupied 114 buildings and in 2022/23 we occupied 112 buildings;
- The impact of the weather.



Under the Climate Challenge Programme the Net Zero Emission Estates project is tasked with reducing emissions from Conwy County Borough Council buildings.

The Net Zero Emission Estates project objectives are:

- Reduce the number of buildings owned and occupied by Conwy County Borough Council;
- Develop and implement a carbon reduction strategy specific to each building type;
- Integrate net carbon zero into the policies and procedures associated with building design, refurbishment, maintenance and asset management;
- Improve the energy and thermal efficiency of our estate by installing energy efficiency measures.
- Develop/support business cases for implementation of carbon zero measures.

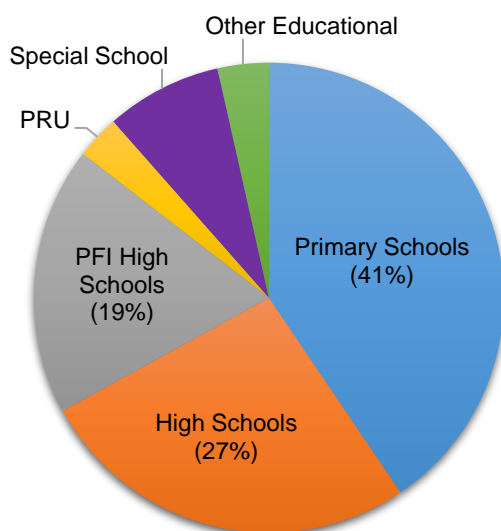
### 3.0 Carbon Equivalent Performance - Schools

The primary and secondary schools in Conwy County are a major contributor to the Council's carbon emissions, accounting for approximately 52% of the Council's emissions from buildings occupied by the Council.

Schools energy consumption breakdown for 2022/23 is detailed in the chart below, which is as follows:

- 56 primary schools which account for 41% of total emissions;
- 4 high schools which account for 27% of total emissions;
- 3 PFI schools which account for 19% of total emissions;
- 4 pupil referral units (PRU) which account for 3% of total emissions;
- 1 special school which accounts for approximately 8% of total emissions;
- 4 other educational centres which account for 3% of total emissions.

**Schools CO2e Emissions 2022-23 (tonnes)**



At the end of 2022/23, schools had decreased their carbon emissions by 8% (429 tonnes) when compared to the baseline year of 2019/20.

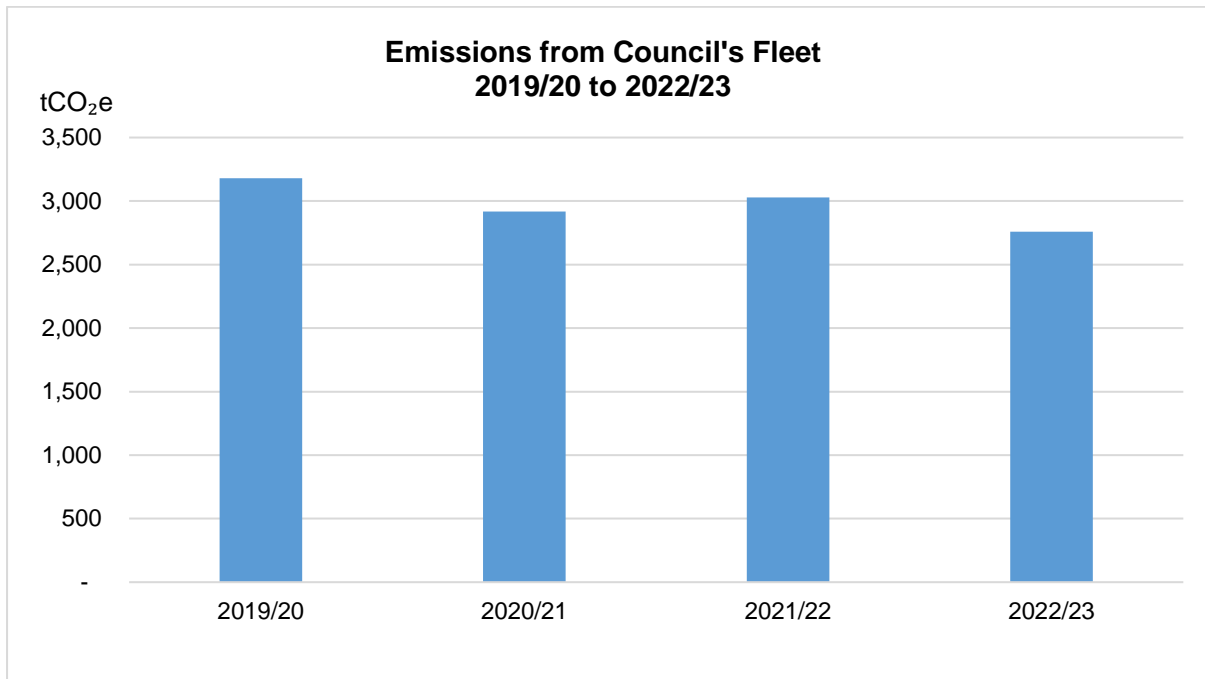
Interventions continue to take place with the aim of reducing the carbon emissions in the County's schools, and include:

- Making energy efficiency integral to the design process of building improvements;
- Targeted awareness and behavioural change;
- LED lighting replacement as part of reactive maintenance works and larger scale modernisation projects;
- The electrification of school catering, as it is more efficient.

## 4.0 Carbon Equivalent Performance – Fleet

The chart below details Conwy County Borough Council's actual carbon emissions from the fuel consumption of its fleet between 2019/20 and 2022/23.

At the end of 2022/23, The Council had reduced carbon emissions from its fleet by 13% (421 tonnes), when compared with the baseline year of 2019/20.



Factors to support a reduction in fuel consumption include:

- Procurement of more fuel efficient vehicles and plant. We currently have 13 electric vehicles and large plant in our fleet;
- Replacing traditional fuel burning small plant with electric equivalents;
- Driver behaviour monitoring;
- Gas oil no longer used as a fuel for vehicles;
- More efficient working practices through improvements in technology and service transformations.

Under the Climate Challenge Programme the Net Zero Emission Fleet project is tasked with reducing emissions from CCBC fleet.

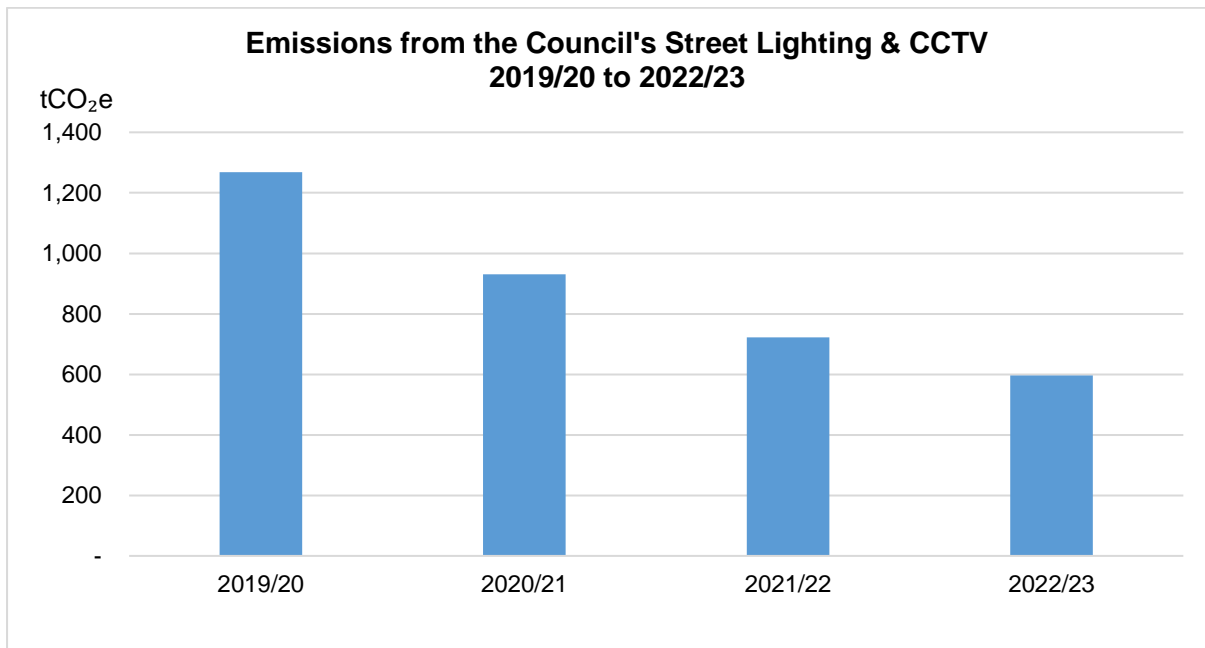
The Net Zero Emission Fleet project objectives are:

- Switch the Council's fleet of vehicles and large plant to a low carbon solution in a phased approach categorised by short, medium and long term feasible vehicles and plant by 2030;
- Develop the physical infrastructure to support the operation of a low carbon fleet of vehicles and large plant;
- Reduce the number of miles travelled by CCBC fleet;
- Explore all alternative low carbon fleet options, e.g. hydrogen, biomethane, hybrid.

## 5.0 Carbon Equivalent Performance – Street Lighting & CCTV

The chart below details the Council's carbon emissions from street lighting and CCTV between 2019/20 and 2022/23.

At the end of 2022/23, carbon emissions from street lighting and CCTV had reduced by 53% (672 tonnes) when compared with the baseline year of 2019/20.



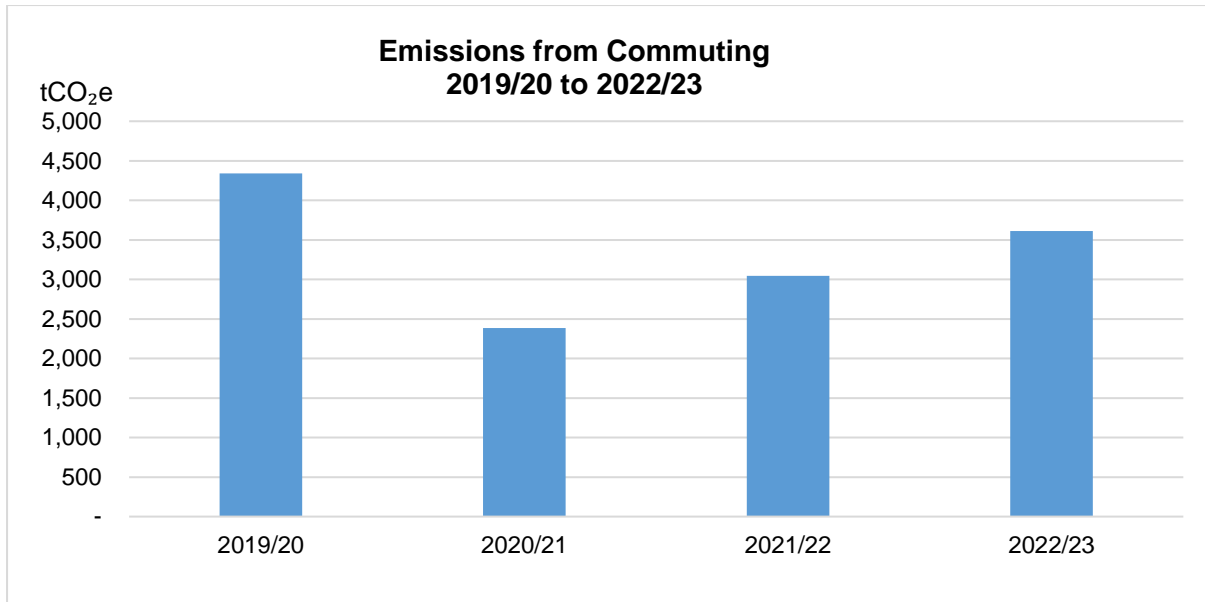
The decrease in consumption is mainly due to the lantern replacement programme that has replaced lanterns with more efficient LED lights. To date, approximately 96% of CCBC's lanterns have been upgraded to LED.



## 6.0 Carbon Equivalent Performance – Staff Travel

The chart below details the Council's emissions from staff commuting between 2019/20 and 2022/23.

At the end of 2022/23, emissions from staff commuting had decreased by 17% (728 tonnes) when compared with the baseline year of 2019/20.

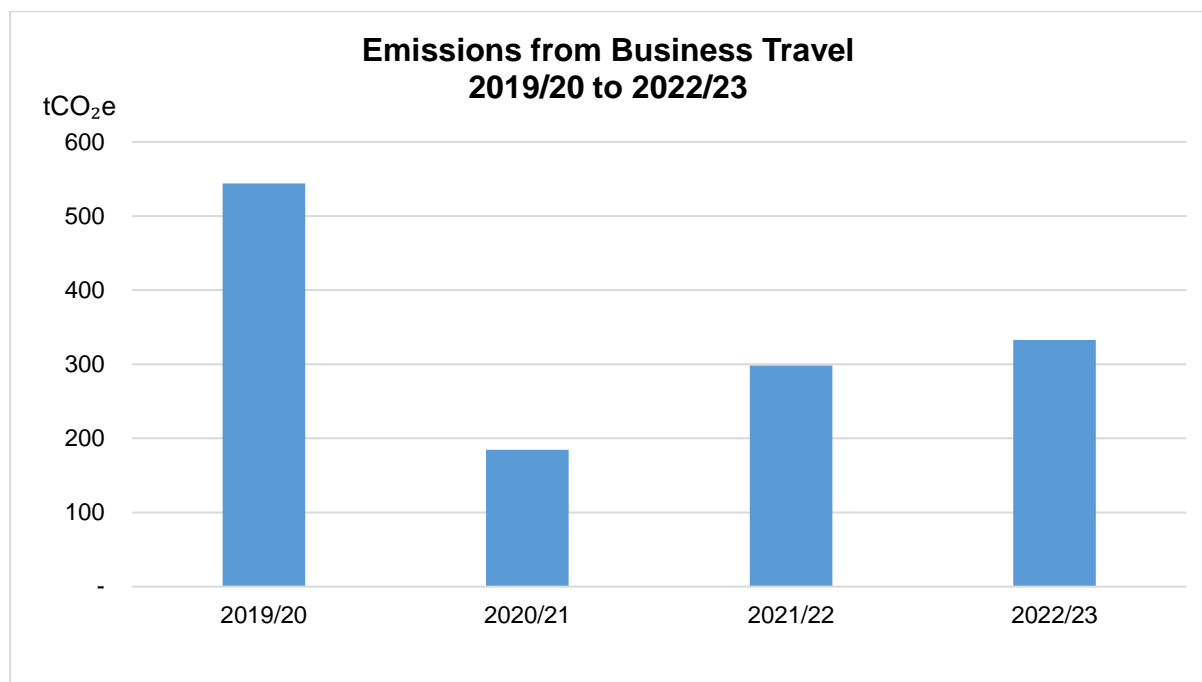


Emissions are calculated using assumptions based on the home address postcodes and the primary workplace location of staff.

The reduction is primarily due to staff homeworking following the Covid-19 pandemic. However emissions from commuting increased by 19% (567 tonnes) from 2021-2022 to 2022-2023 due to a higher proportion of office working.

The chart below details the Council's carbon emissions from business travel between 2019/20 and 2022/23.

At the end of 2022/23, Conwy County Borough Council had reduced carbon emissions from business travel by 39% (211 tonnes) when compared with the baseline year of 2019/20.



Emissions from business travel have increased from 2020/21 following a return to more office based working following the Covid-19 pandemic.

A total of 532,239 fewer miles were claimed in 2022/23 compared to the baseline year which resulted in a saving of £239,508 on the cost of business mileage.

Under the Climate Challenge Programme the Net Zero Emission Staff Travel project is tasked with reducing emissions from Conwy County Borough Council business travel and staff commuting.

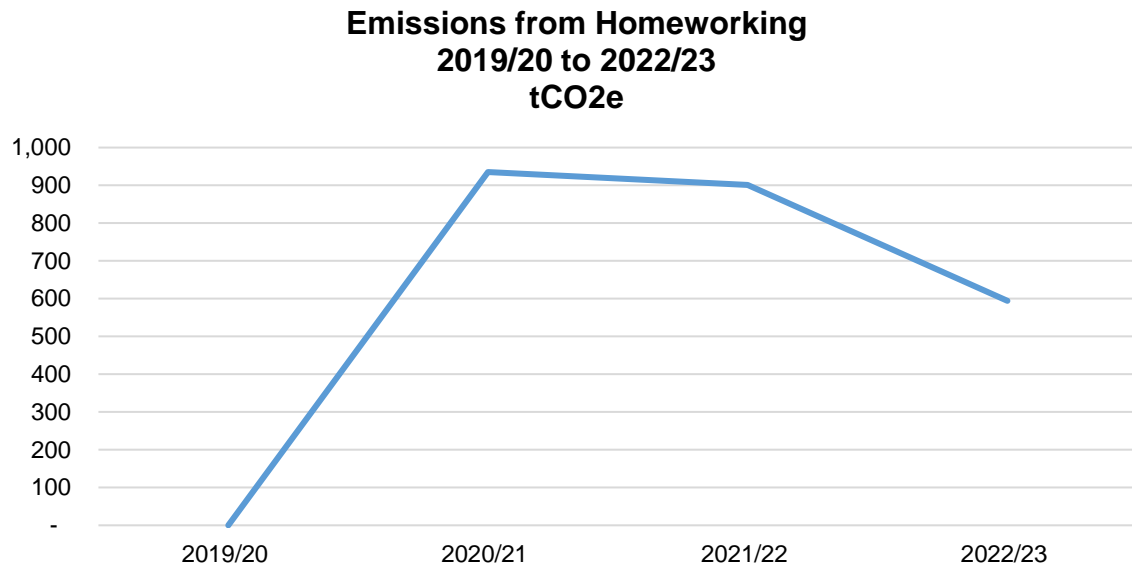
The Net Zero Staff Travel project objectives are:

- Develop a Staff Travel Policy;
- Develop the physical infrastructure to facilitate reduced staff travel, low carbon and active travel methods;
- Develop procedures to facilitate reduced business travel and commuting;
- Ensure staff are well informed about the policies and procedures associated with reduced travel, low carbon and active travel methods;
- Develop a CCBC Workplace Travel Plan.

## 7.0 Homeworking

It is thought that emissions due to homeworking were minimal prior to the pandemic, and were not measured.

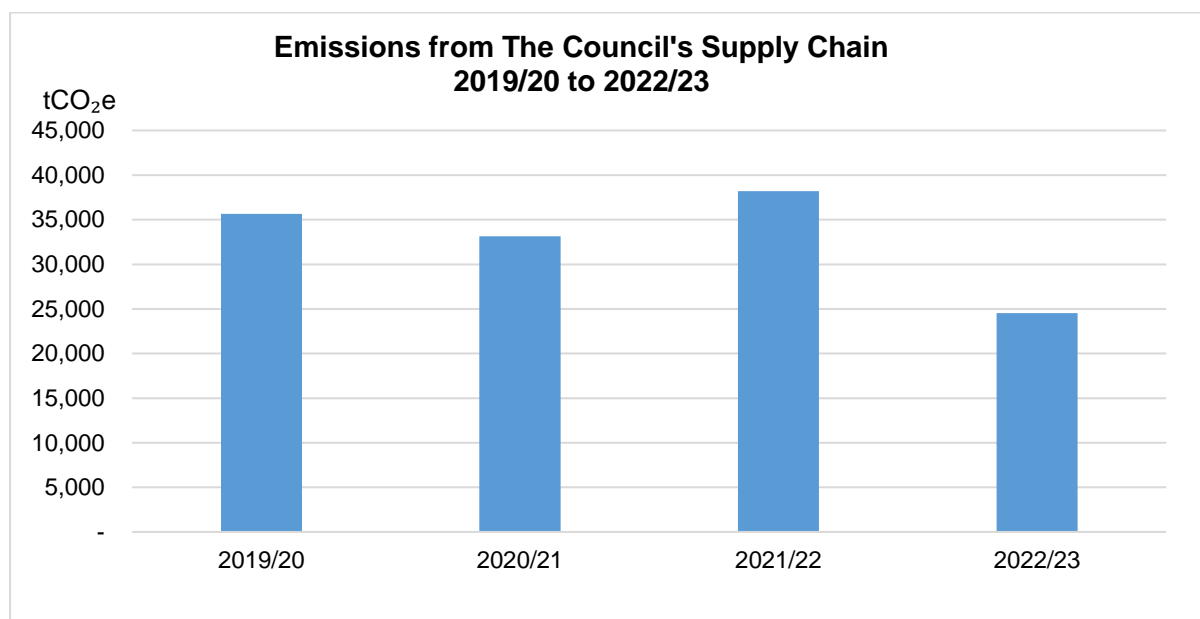
At the height of the pandemic in 2020/2021 emissions from homeworking had risen to approximately 935 tCO<sub>2</sub>e. During 2022/23, emissions from homeworking had reduced to 594 tCO<sub>2</sub>e as staff return to office working. As shown in the graph below:



## 8.0 Carbon Equivalent Performance – Supply Chain

The chart below details the Council's emissions from supply chain spend between 2019/20 and 2022/23. Supply Chain accounts for approximately 58% of Conwy County Borough Council's total emissions.

At the end of 2022/23, emissions from supply chain spend had reduced by 31% (11,125 tonnes) when compared with the baseline year of 2019/20.



The decrease is due to amendments to the emissions factors used to calculate the emissions from each pound spent. The new emission factors were developed by the University of Leeds as an update to the dataset used previously.

Under the Climate Challenge Programme the Net Zero Emission Supply Chain project is tasked with reducing emissions from Conwy County Borough Council supply chain.

The Net Zero Supply Chain project objectives are:

- Improve the supply chain emission data methodology;
- Integrate net carbon zero in to the Council's procurement policies and procedures;
- Review procurement templates across Conwy County Borough Council to integrate decarbonisation as a factor in procurement processes;
- Develop and implement a communication and engagement plan to incentivise carbon reduction amongst suppliers;
- Engage with other organisations on the Public Service Board to develop a collaborative approach;

## 9.0 Land Use

The forestland and grassland owned by Conwy County Borough Council act as a carbon sink. It is estimated that the forestland & grassland is responsible for the annual sequestration of 457 tonnes of CO<sub>2</sub> equivalent, approximately 1% of Conwy County Borough Council's total emissions.

At the end of 2022/23, emissions sequestration from land have increased when compared with the baseline year of 2019/20. This is due to the acquisition of additional grassland in Llanrhos.

Under the Climate Challenge Programme the Carbon Offsetting project is tasked with sequestering emissions from Conwy County Borough Council partly through land use.

The Carbon Offsetting project objectives are:

- Establish the impact of urban trees on Conwy County Borough Council carbon emissions;
- Carry out tree planting across 110 hectares of current Conwy County Borough Council estate;
- Expand tree planting across an additional 225 hectares of Conwy County Borough Council estate;
- Explore opportunities for renewable installations across Conwy County Borough Council estate, such as solar farms;
- Increase hedgerow coverage in Conwy County Borough Council estate.