



# Elmbridge Borough Council Further assessment carbon emissions

A summary report by Optopia Ltd

May 2024

# Scope of Work



Elmbridge Borough Council (EBC) commissioned Optopia to review of its carbon footprint and carbon management strategy. To achieve this Optopia has worked closely with EBC to:

- Completed a comprehensive review of the councils historic emissions data
- Completed energy audits of its remaining sites, not covered in the previous work, identifying options on how emissions could be reduced.
- Optopia has worked closely with EBC to calculate different scenarios for emission reductions into the future and how these are impacted by the various options available to EBC. This includes:
  - The starting point: EBC's historic carbon footprint or baseline emissions
  - The challenge: why EBC needs to act if it is to achieve net zero
  - The plan: how EBC can deliver its emissions reductions
  - The future: emissions projection scenarios that explore how emissions could fall if the CMRP is implemented
- Updated the carbon management strategy, incorporating the additional buildings

# The starting point: baseline emissions

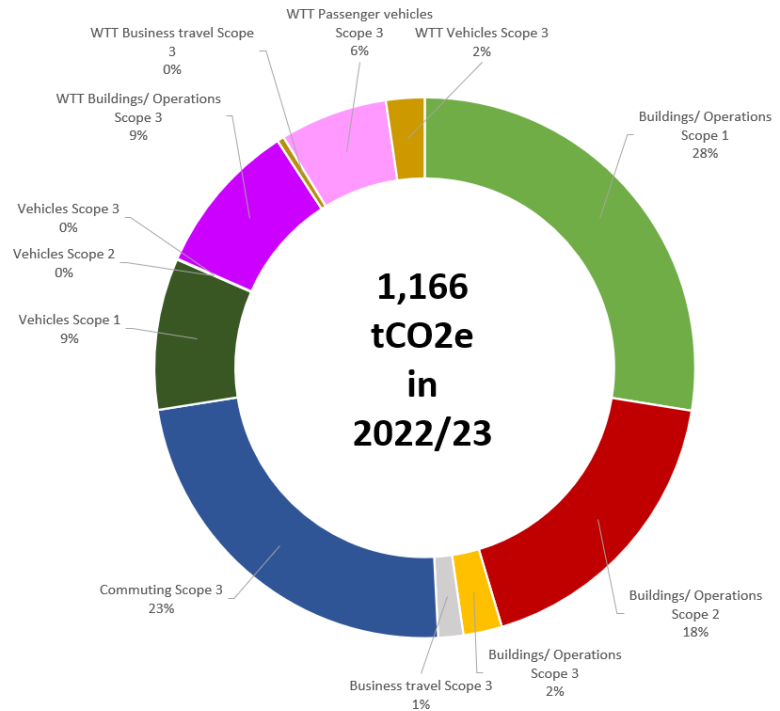
EBC's carbon footprint is made up of:  
 energy use in buildings  
 energy use for vehicles  
 water and waste from its own operations\*

In line with international best practice, they are reported in three groups or 'scopes':

- Scope 1 - Direct energy
- Scope 2 - Indirect energy
- Scope 3 - Other indirect

*\*EBC does not include emissions from household waste in its carbon footprint*

EBC carbon footprint for 22/23 (tCO<sub>2</sub>e)



Source: EBC data and Optopia analysis, WTT: Well to Tank (method used to calculate the emissions emitted from production, transportation, distribution, etc. of fuel used to power vehicles)

tCO<sub>2</sub>e: tonnes of Carbon Dioxide Equivalent

# The challenge: net zero



In 2019, EBC declared a climate emergency and pledged to become carbon neutral by 2030

Between 21/22 and 22/23, EBC's reported emissions increased

This was primarily due to increased commuting, travel and building use after the pandemic

It highlights that EBC needs to take deliberate action to reduce its carbon footprint if it is to achieve net zero

EBC has a Carbon Management and Reduction Plan (CMRP) in place

## EBC carbon footprint 21/22 vs 22/23

Emissions source	Scope	% change	
Vehicles	Scope 1	5%	Yellow
Vehicles	Scope 2	0%	
Vehicles	Scope 3	-	
Business travel	Scope 3	-13%	Green
Commuting	Scope 3	410%	Red
Buildings/ Operations	Scope 1	14%	Yellow
Buildings/ Operations	Scope 2	6%	Yellow
Buildings/ Operations	Scope 3	14%	Yellow
Solar	Scope 1	-	
WTT	Scope 3	5%	Yellow
WTT	Scope 3	-11%	Green
WTT	Scope 3	421%	Red
WTT	Scope 3	8%	Yellow

Source: EBC data and Optopia analysis  
WTT: Well to Tank

# The plan: deliver emissions reductions



Optopia have reviewed and updated EBC's Carbon Management and Reduction Plan (CMRP) as part of this project.

The CMRP identifies a wide range of ways that EBC can reduce its emissions, including:

- energy efficiency
- energy transition (i.e. decarbonising heat for buildings or diesel to electric transition for fleet)
- on-site energy generation like solar photovoltaics (solar panels)

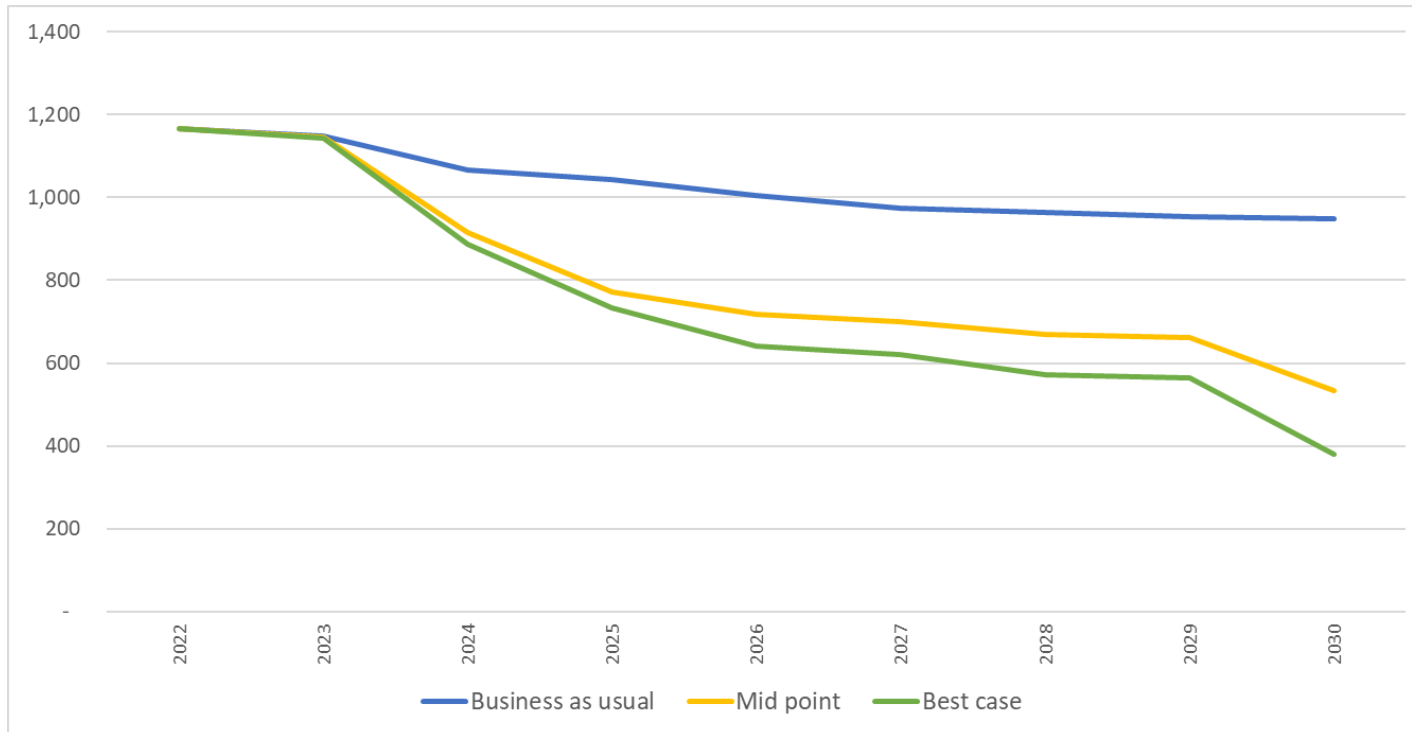
Monitoring emissions on a regular basis will help EBC check that its emissions are heading in the right direction.

Considering the impact that changes to activities or new services could have on the footprint will also avoid an unexpected increase.

# Future trajectories for EBC's carbon footprint

The pandemic showed that the future is uncertain

This project has illustrated that EBC could make material progress in reducing its emissions, if it delivers its CMRP



- Even in a best case scenario (if the electricity grid decarbonises rapidly and EBC actions the CMRP), some residual emissions are likely to be left
- EBC will need to collaborate with others to tackle these