



Redcar & Cleveland Borough Council

Climate Change Strategy

2021 - 2030





Foreword



The scientific research around climate change and global warming is clear. The world must act urgently to reduce carbon emissions and limit global temperature rise. Without response, we will experience devastating consequences both internationally and closer to home. Climate Change is a universal and sustained problem and our response must be up to the challenge.

We are the custodians of our children's future and the world they will inherit and as a local authority, we play an important role in safeguarding our area for its future generations, by acting decisively and acting now.

Redcar & Cleveland Borough Council has set an ambitious target for a carbon neutral borough by **2030**. Tackling Climate Change is a key priority for us. We've already reduced our CO2 emissions by 69% since 2014 and have subsequently halved our emissions from streetlighting and introduced zero emissions vehicles into our fleet. However, the figures show that this must be the beginning. Whilst the actions we have taken have made a real difference we must go further if we are to achieve our ambitions.

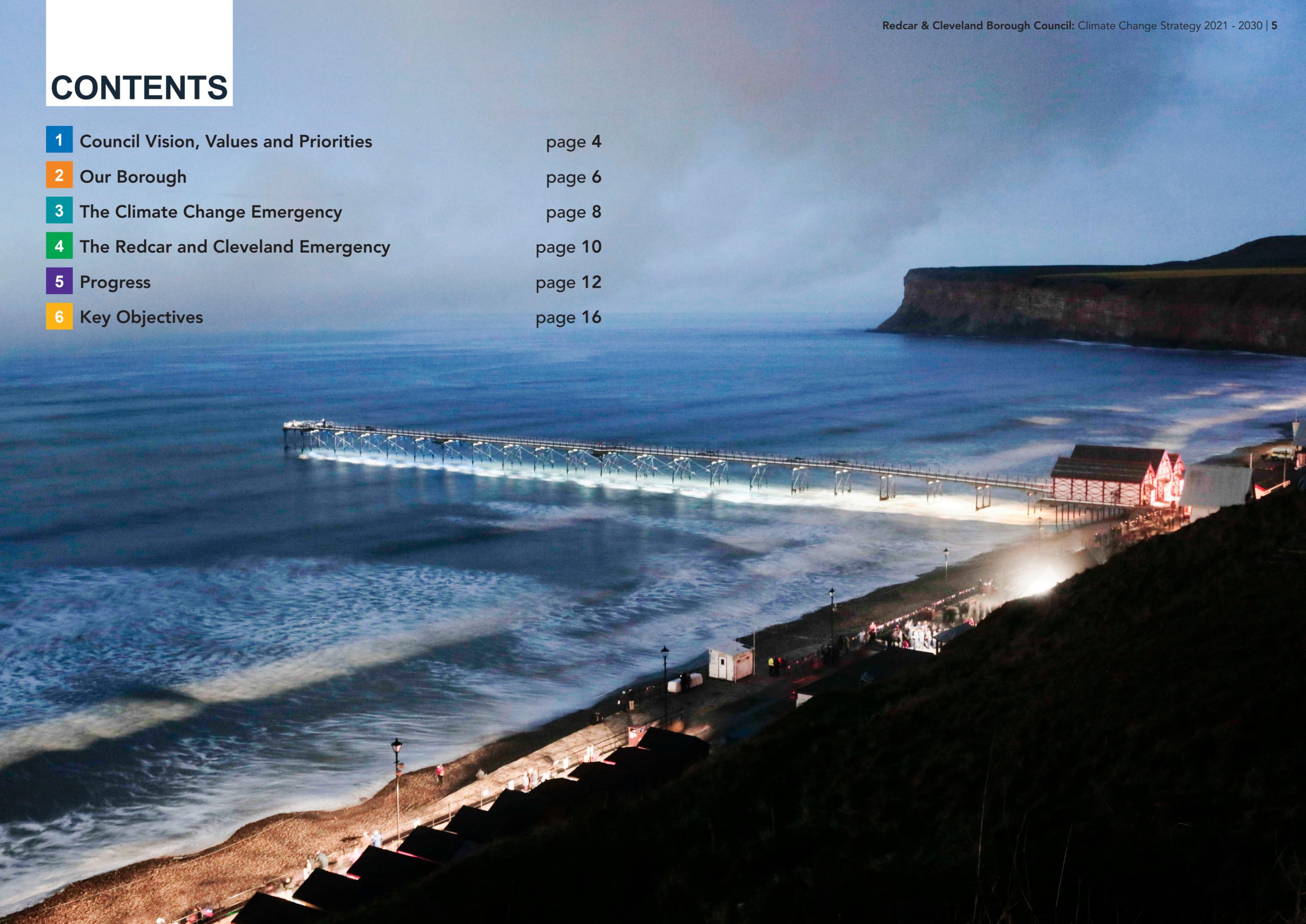
This strategy sets out a vision for sustainable carbon neutrality across Redcar & Cleveland. The science and associated technology around this topic are moving extremely quickly and we must ensure that we adapt our approach in response, to ensure the best possible outcomes.

Louise Westbury
Cabinet Member for Climate Change & Environment



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2 Our Borough

Redcar and Cleveland is a borough with a strong industrial heritage and ambitious plans to develop a bright future. It is also a borough with a rich natural environment. On the edge of the North Yorkshire Moors National Park, we have scenic coastlines, attractive, unspoilt countryside and a variety of natural assets. The diversity and beauty of our natural environment must be protected, enhanced and promoted so that our communities and future generations can continue to enjoy it.

The borough's urban environments are vital to the health and well-being of local residents, providing opportunities for social interaction and recreation whilst also influencing air and water quality. There is an intrinsic link between the environment in which people live and their health. We are committed to improving the quality of the environment in which our residents live for the benefit of their health overall.

This strategy defines a vision for reducing emissions with ultimate aim of a net zero borough by **2030**. It articulates the high level priorities for the Council with regard to delivering environmental improvements and positive actions to achieve net zero. This will ultimately benefit everyone living and visiting our borough.



3 The Climate Change Emergency

Our climate is changing and it is now widely accepted that human activities are causing climate change, the scale and pace of which is threatening the future of the planet as a whole.

- In the UK all of the top 10 warmest years have occurred since 2002 and the period 2010 - 2019 was 0.3C warmer than the period 1981 - 2010 and 0.9C warmer than 1961-1990
- The decade 2010 – 2019 in the UK was on average 1% wetter than 1981 – 2010 and 5% wetter than 1961 – 1990

(source State of the UK Climate 2019. RMetS Vol40 S1).

The rate of the global response is increasing and the international framework for action is becoming stronger.

International Response

At the twenty first session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC), national governments, including the UK, agreed to strengthen the global response to the threat of climate change. This included a historic commitment to “holding the increase in the global average temperature to well below 2°C above preindustrial levels and pursuing efforts to

limit the temperature increase to 1.5°C above pre-industrial levels.” Limiting global average temperature increases to 1.5°C will require radical action by national governments, local organisations, businesses, communities and individuals across the world; this means us. Subsequent COP sessions have furthered the agenda and led to national recognition and reaction to the identified challenge.



National Response

In 2008, and in response to international agreements on climate change, the UK government introduced the Climate Change Act. This contained the world’s first legally binding targets to reduce greenhouse gas emissions; at least 34% by 2020 and by 80% by 2050 against a 1990 baseline. In July 2019, the targets of the Climate Change Act were amended to give a commitment to reducing carbon emissions to net zero by 2050. The Prime Minister made a further commitment in November 2020 to reduce UK carbon emissions by 68% by **2030**, representing an acceleration in the pace of change.

In November 2020 the government released a Ten Point Plan for a Green Industrial Revolution. The stated aim of this was to turn the UK into the world’s number one centre for green technology and finance. The approach set out in this strategy aligns with the ten point macro-level plan set out by the government, most notably Driving the Growth of Low Carbon Hydrogen, Accelerating the Shift to Zero Emission Vehicles, Green Public Transport, Cycling and Walking, Greener Buildings, Investing in Carbon Capture, Usage and Storage and Protecting Our Natural Environment.



4 Redcar & Cleveland Climate Emergency

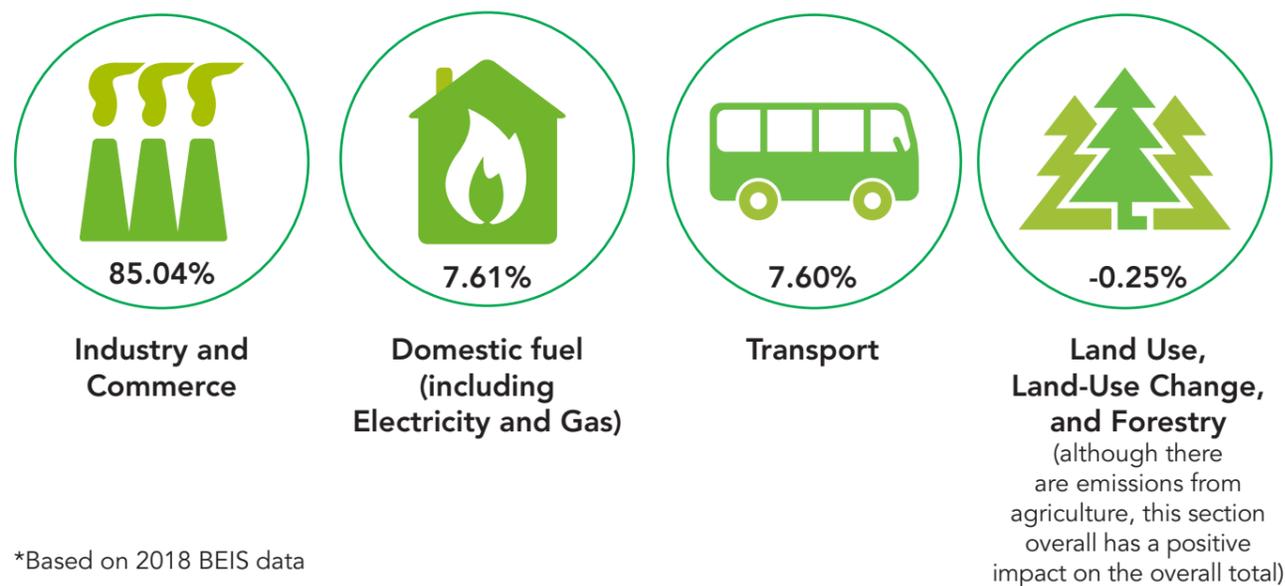
The borough of Redcar and Cleveland currently emits approximately 2.6M tonnes of Co2 every year. Of these emissions, the Council contributes around 9,200 tonnes. Around 85% of overall emissions within the borough come from industry and commerce, predominantly the large industrial installations we have at the Wilton International site and Teesport areas.

The Tyndall Centre for Climate Change Research has established 'carbon budgets' for every local authority area in the country. These are maximum cumulative emissions totals up to the year 2100, which enable each area to meet the requirements of the

Paris agreement. At current rates, Redcar and Cleveland will have exceeded its allocated carbon budget by 2033. To achieve the target for the borough of carbon neutrality by **2030**, we must reduce our emissions by an average of more than 10% every year.



*The main emissions areas for the borough as a whole can be summarised as:



*Based on 2018 BEIS data

As can be seen, for the borough to become carbon neutral, the output from industry and commerce (which includes the Council's operations) must be the single biggest area of activity. We recognise however that growth is fundamental to a prosperous borough and this strategy therefore supports clean economic.

Tackling emissions will involve two primary areas:

- **Direct CO2 emissions:** reducing the CO2 emitted from homes, workplaces and ground transport
- **Indirect CO2 emissions:** understanding and taking action on the things that we consume and which generate greenhouse gases through their production, transportation and disposal



5 Progress

The good news is that we aren't starting from scratch. Really strong progress has already been made in the borough to reduce emissions significantly since 2010 and there are some big improvements that have taken place within the last year or two. On top of this there is more planned over the next few years. Here are some good examples of what's gone on.



The internal and external lighting at a number of Council buildings has been upgraded to LED and more effective heating and building management systems have also been installed. A high proportion of smart meters and effective energy management processes have enabled usage and energy wastage to be minimised.



The Council has replaced **5%** of its fleet vehicles with fully electric equivalents and is committed to significantly increasing this now that the operational effectiveness of the vehicles has been established.



We are committed to enhancing our already beautiful natural environment. Between 2014 and 2019 we planted more than **4000** new trees which will have the effect of removing more than **half a ton** of Co2 from the air in the borough once they reach semi-maturity.



Along with partner local authorities in the north east, the Council has embarked on the establishment of a **£300 million** Energy From Waste facility in the borough. This will utilise waste from 1.5 million residents around the north to generate electricity which can be fed back into the grid.

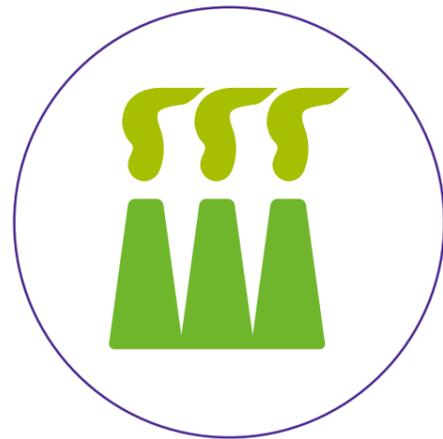




Net Zero Teesside

The Net Zero Teesside programme aims to create the UK's first decarbonised industrial cluster through the development of a full scale Carbon Capture, Utilisation and Storage (CCUS) scheme. This technology is intended to remove considerable amounts of carbon dioxide emissions from the atmosphere to be stored underground. The site for Net Zero Teesside, set within the boundaries of Redcar & Cleveland will serve a dual purpose, generating large amounts of clean power (the carbon outputs from which will be captured) as well as capturing large amounts of carbon from industrial processes around the area.

Phase 1 of the project is scheduled to be operational by 2026, at which point it will remove 2 million tons of Co2 from local industry. At the point of completion, the project will remove a total of 10 million ton of Co2 from local industry and from the onsite power plant.



Tees Valley Energy Recovery Facility

Redcar & Cleveland has joined with seven other North East councils on a project to create a new energy recovery facility using the latest technology. Energy Recovery Facilities are power stations which generate electricity and heat through the controlled burning of any rubbish which cannot be recycled. The planned facility for our borough will turn 450,000 tons of non-recyclable waste from around the region into enough energy to meet the needs of more than 32,000 homes each year. This will be done with far lower carbon emissions than current arrangements, with the successful contractor required to make year on year reductions in carbon emissions from the site, and will explore carbon capture technology as a means to fully offset the outputs.



Recycling & Area Care

Redcar & Cleveland is one of the highest performing areas in the North east when it comes to recycling and this is down to the commitment of the borough's residents. However, we remain much lower than the national average and so must improve further. Around the borough, our residents volunteer to do litter picks and beach cleans as well as planting and maintenance work in our woodlands and green spaces.



Streetlights

We have replaced more than 15,000 streetlights across the borough with low consumption LED units. In some areas these are dimmed at certain points during the night to reduce consumption even further. The lights will reduce carbon emissions by more than 1200 tons every year and will require more than 53% less electricity to power them.



6 Key Objectives

Achieving a carbon neutral Redcar and Cleveland requires action by many different organisations in many different areas and in reality this cannot solely be driven by the Council. It is about collective responsibility.

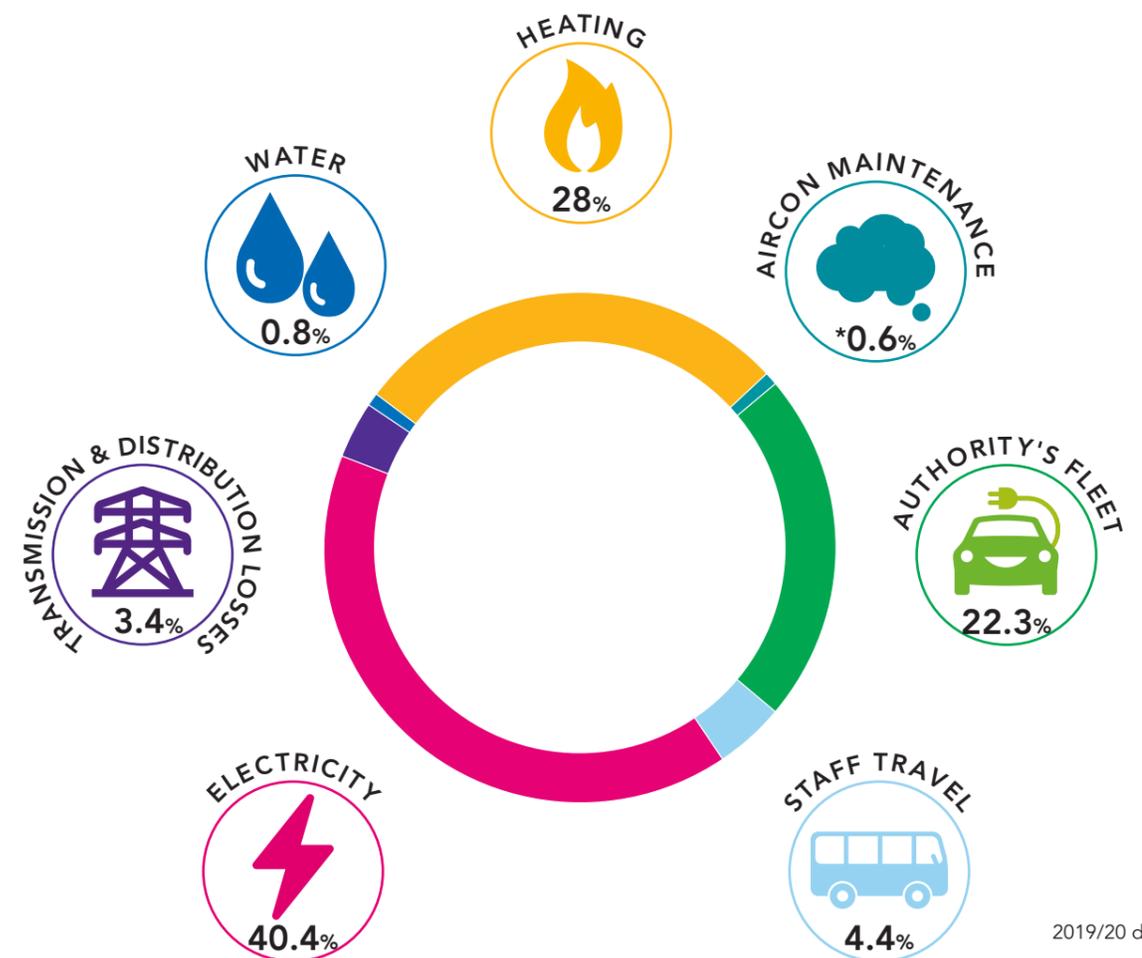
The Council can seek partnership and commitment to the cause from organisations and individuals within the borough. As an organisation which is prominent in the borough, the Council must ensure that it sets

an example in driving towards becoming carbon neutral, acting decisively in areas of direct control. It can also support its residents to act and to do whatever they can to reduce their personal emissions.



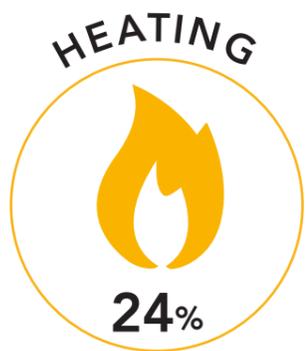
Objective 1: A Cleaner, Greener Organisation

As an organisation our emissions fall under 7 primary areas, all associated with our operations:

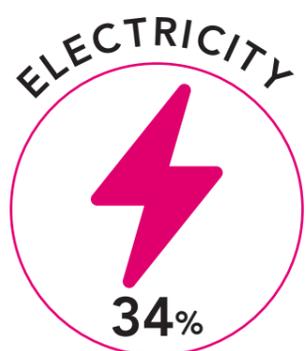


As can be seen from the diagram above, the key areas of focus for the Council are emissions from **heating, electricity and fleet**. As a result, the action plans for lowering Council emissions will emphasise these areas. *Some equipment, such as fridges and air conditioning units, not only use energy, but also contain chemicals which are greenhouse gases such as hydrofluorocarbons. A degree of leakage is inevitable. These gases are known as fugitive emissions and good equipment maintenance can reduce the problem, as can a reduction in the overall numbers of this equipment.



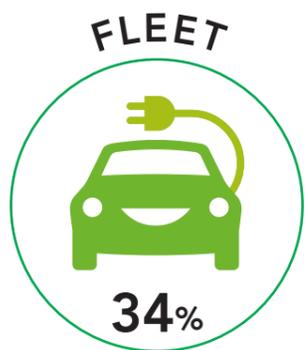


Heating - this relates to the heating of our buildings which is currently achieved using gas as the energy source. To tackle this area the Council must have fewer, more efficient buildings and will seek to reduce its reliance on gas through mechanisms such as hybrid heating systems. The current emissions are 2645 tonnes for heating.

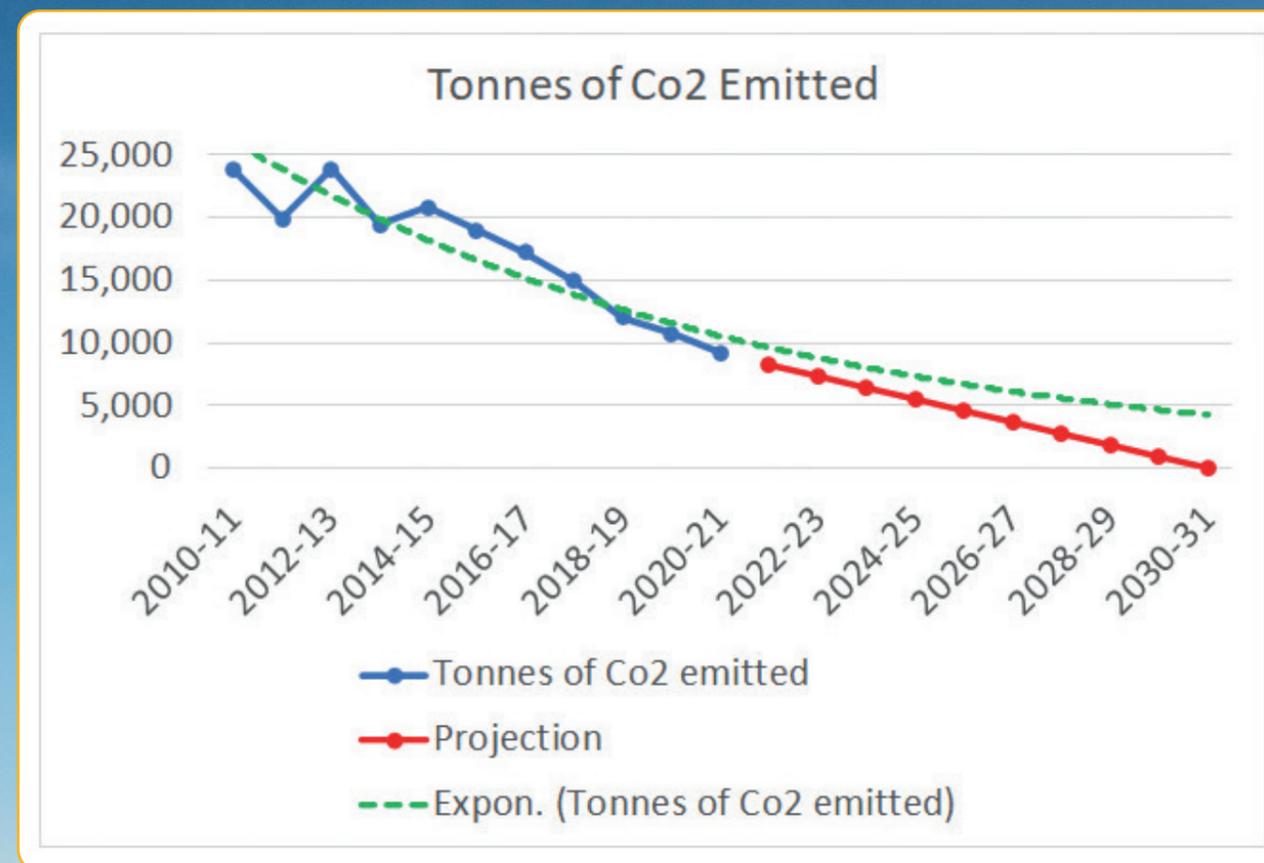


Electricity consumption is split into two main areas:

- **Streetlighting** - 1,970 tons of Co2 per annum. However, this is expected to more than halve in 2021/22 as the full effect of the investment in LED street lighting is realised.
- **Buildings** - 1,842 tons of Co2 per annum - fewer, more efficient buildings, plans for the future use of disposed buildings and more efficient IT infrastructure will impact on emissions in this area.



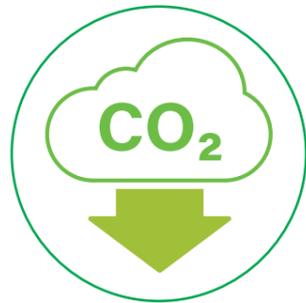
Fleet - the Council fleet numbers around 211 vehicles, ranging from 32 ton hookloaders to conventional hatchback cars. However, the majority of vehicles are internal combustion, with diesel being the main fuel source. The extent, availability and suitability of electric vehicles is improving, making them increasingly viable for Council fleets. Although not as far advanced, hydrogen fuel cell vehicles are also closer to being mainstreamed and both vehicle types. Alongside a reduction in the overall numbers of vehicles operated by the Council, these types of vehicle will be key to positively affecting fleet emissions. The current emissions are 3741 tons for fleet.



In addition to changing the way our operational services work, we will make significant investments in green infrastructure, using our assets to help achieve this. We will also ensure that our growth projects contribute positively to the overall objective.



Objective 2: Collective Responsibility



Establish partnerships with organisations in the borough signalling their commitment to do whatever they can to reduce their emissions.

Achieving carbon neutrality as a borough requires collective effort and it is important to generate a culture of partnership and togetherness without seeking to control or over-formalise the process. Organisations must be able to dedicate their efforts to action and making a difference whilst being part of a collective movement.



Increase awareness and understanding in our communities and help signpost our residents to what they can do to help.

Understanding what we as individuals can do to reduce our emissions is key in the delivery of benefits we can all enjoy. We will make sure that our residents are aware of the steps they can take to help and will support other organisations to do likewise. We will support and encourage green tourism; we want people to come and enjoy our beautiful borough and would love them to do so sustainably.



Health and wellbeing - Improving the health and wellbeing of our residents through actions that also contribute to our objectives for CO2 reduction.

Reducing emissions can and should positively impact upon the ability of people to breathe cleaner air, exercise and move about sustainably and enjoy improved mental wellbeing through their experience of living and visiting our borough.

Objective 3: Be Involved in the Bigger Picture

Climate change is a global problem. We want to do our part to positively affect the situation for the planet as a whole.

We can participate in research that can aid the international understanding of what works.

We can continue to support the Tees Valley Combined Authority to make Teesside internationally prominent in the field of green technology.



