



Melton Borough Climate Change Context and Challenges

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Introduction

This document provides you with an overview of climate change and what it is. Then it demonstrates how the borough is influencing climate change, by providing information on our current emissions.

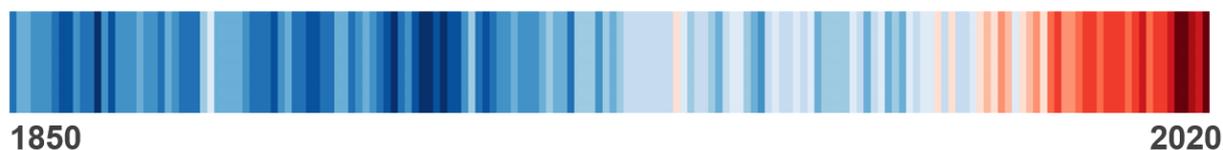
A key part of this document is that it highlights key challenges that the Melton borough will face when tackling climate change and becoming a net zero borough, and ways in which we will need to change to ensure that we reduce the impact we have on climate change.

Finally, it describes what Melton Borough Council are currently doing and will do in the future to tackle our own emissions and work with residents, businesses and organisations to collectively reduce our emissions as a borough.

Climate Change Context

The great majority of scientific evidence, built up over many years, shows that the Earth's climate is changing as a direct result of human activity which has increased greenhouse gases in the atmosphere by around 45% since the industrial revolution. The main causes are the burning of fossil fuels for energy, agriculture and deforestation, and the manufacture of cement, chemicals, and metals.

The impacts of climate change are already being felt across the world. The graphic below shows how average global temperatures have risen over time by around 1.2°C, with the last decade being the hottest on record.



If the current rate of global heating continues, the effects for humanity and biodiversity will be devastating, and the window for taking action to limit the effects is reducing rapidly. Scientists and the Government agree that we need to take action to reduce our greenhouse gas emissions and limit further warming now. The Paris climate conference (COP21) in 2015 adopted the first-ever universal global climate deal to limit global warming to well below 2°C above pre-industrial levels and pursue limiting them to 1.5°C. The UK government has set out legally binding targets to reach net zero emissions by 2050 and to reduce emissions by 68% by 2030.

If we act now, we will avoid burdening future generations with greater impacts and costs. This doesn't mean that there will be no changes in the climate, as warming is already happening, but we could limit, adapt to and better manage these changes if we take steps now to reduce our emissions.

For more information on climate change please see the [Government's guide](#).

The Melton Borough Context

This section of the document sets out some basic background information about the emissions generated with the Melton borough.

Overall emissions in the Melton borough

The Melton Borough is estimated to produce annually around 288 net KtCO² of direct CO₂ emissions that would work out at around 5.6 KtCO² per person per year. These direct emission, summarised in the charts below, only include emissions created in the borough, they will not include emission from, and for example, local people taking flights or products that local people buy that are made outside the area.

Chart 1: Breakdown of CO₂ direct emission estimates in the Melton borough (ktCO₂)

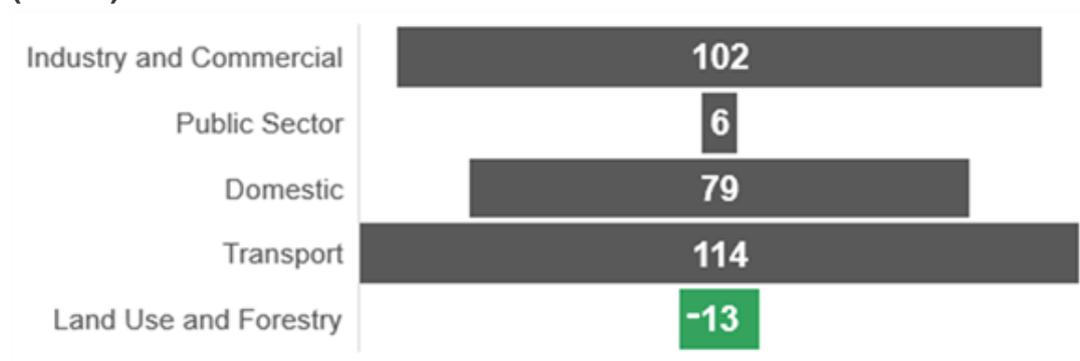
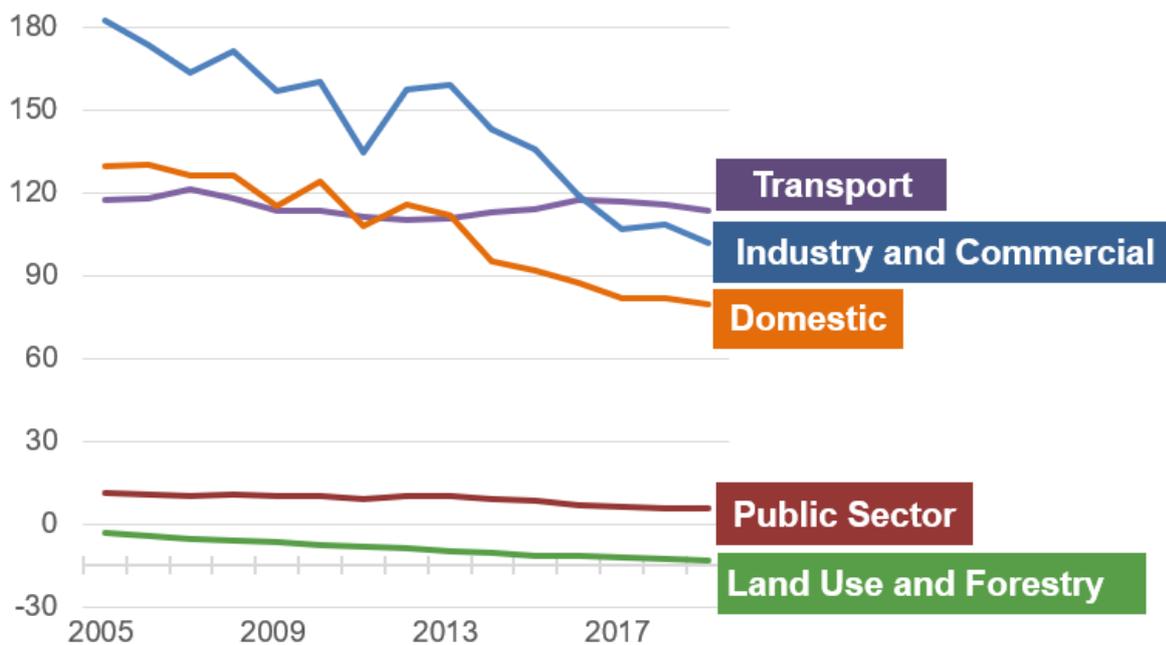


Chart 2: Direct CO₂ emission estimates by source over time in the Melton borough (ktCO₂)



BEIS Co₂ national estimates to 2019

Despite more homes being built and economic growth over time, emissions from industry, commercial premises, the public sector, and domestic housing have been steadily falling. This has mainly been because low carbon wind and solar energy has over time made up a larger percent of the electricity used in the national grid. More energy efficient appliances and boilers as well as better insulated buildings will have also contributed to this fall.

Transport emissions have however remained relatively constant over time, small benefits from more efficient new cars, including a few hundred electric cars registered in the borough are likely to have been offset by the increasing population, which has increased the number of motor vehicles used in the borough.

Grassland and woodland areas across the Melton borough act as a 'sink' which helps to remove a greenhouse gases from the atmosphere, even after taking into account emissions from land in built up areas and land used for croplands, overall land use in the Melton borough results in an annual net sink of around 13 Tons of CO². Grassland and woodland area sinks are estimated to be able to offset less than 10% of our current CO² emissions.

As the electrical grid becomes lower carbon, future reductions in greenhouse gas emissions will need to increasingly come from local changes, to buildings, industry, transport, agriculture, and the phasing out of gas-fired power and heating¹.

Key Local Issues

We want to help the Melton borough to become carbon neutral, but we know that rural areas like ours will face tougher challenges than many urban areas. This is because our population is spread out across a large area, we are more reliant on cars for transport, and have a housing stock that will be more challenging to retrofit to make it energy efficient.

We have summarised some of what we think are the key issues locally by different themes.

The demographic challenge; our growing and aging population

Local energy use and emissions are strongly affected by both the size of the population and the types of households within it.

The population of the Melton borough is steadily growing. Just through natural change we expect the population to grow by at least 2,400 people by 2043, mainly because

¹ [Climate Change Commission, 2020](#)

people are living longer. More people will require more energy and use more resources, they will produce more emissions and more waste, they will require more homes and increase the demands on transport networks and other facilities.



The borough's population is also aging, all of the predicted population growth will be accounted for by growth in the number of people aged over 65. As the population ages, people are expected to retire or become less economically active. With this change an increasing proportion of dwellings are expected to be heated and use more energy during weekdays. Evidence also suggests that older people are more likely to use more energy, to keep their homes warmer, because they feel the cold or to help with health issues linked with aging, such as stiff joints.

In part due to the aging of the population, the average size of each household is expected to fall. We expect to see a large increase in the number of smaller sized households made up of people living alone or in adult only couples. There is a minimum level of energy use in any home, which applies regardless of the household size (e.g. to heat them and run basic appliances such as cookers and fridge freezers). Because of this, an increase in the proportion of smaller sized households is expected to also increase domestic energy use per person overall.

Domestic emissions; our housing challenge

To become carbon neutral by 2050 will be a significant challenge, we will need in effect to completely decarbonise housing in the Melton borough within the next 30 years.

Housing emissions have fallen over the last 15 years thanks largely to lower carbon electricity making up a larger part of the national grid, but we are not able to rely on this moving forwards. Around 76% of domestic emissions are estimated to come from the use of gas and 'other' fuels such as oil. The use of 'other' fuels is higher than average in the Melton borough because around 1 in 4 rural homes are not connected to the gas network, many rely on oil heating systems.

The government has set national targets for as many homes as possible to have a good levels of energy efficiency by 2035, with more ambitious targets for fuel poor households and all rented homes to achieve this by 2030. We think these are good interim target for the Melton borough as they will also help us reduce fuel poverty, which affects around 10% of all households.

Reducing domestic emissions will be a challenge because of the makeup of the housing stock;

- Almost one in five homes are thought to be more than 100 years old, older homes tend to be less efficient and are often harder to insulate
- There is a high proportion of larger homes, which require more energy to heat
- There is a high proportion of detached and semi-detached homes, which can lose heat more easily
- The borough has many listed buildings and conservation areas where homes will need to be adapted whilst protecting their valued local character and heritage
- The housing stock is largely owner-occupied, it is likely to be harder to retrofit because has historically been less financial support and regulatory pressure to make changes than in other tenures

New housing will be needed to meet the needs of our growing population. It will need to be more energy efficient, and we will need to work with the development industry to help them implement higher energy efficiency building standards, including the Government's Future Homes Standard. This will effectively see the end of gas boilers in new homes, higher energy efficiency requirements and the widespread uptake of new heating technologies such as heat pumps over the next five years.

Industry and business emissions

A larger than average proportion of local emission come from industry and business in the Melton borough, this is due to the mix of sectors locally including larger than average manufacturing and agriculture sectors.

Going greener will look different for every business, but we think there is a role for the Council to help local businesses achieve their green aspirations, and help to link them with appropriate training, advice, and funding opportunities. We want to hear from local businesses, to understand what help and support they think they need and how the Council might be able to help them become more sustainable.

Local businesses are already talking to us about their own ambitions to become more sustainable and there is growing consumer demand for more environmentally aware business practice. The coronavirus pandemic has changed how the Council engages with local businesses and we want to build on this new relationship to help local businesses to grow, adapt and seize new opportunities in the green economy. Over 400 hundred new green jobs are expected to be needed in the Melton borough by 2030 and more than 600 by 2050². These new jobs will be needed to drive forward action to

² [Local Government Association, 2020](#)

tackle climate change, including the adoption of low carbon heating systems and improving the energy efficiency of local buildings.

Local and sustainable produce has a role to play in reducing food emissions, as the rural capital of food, we think that there may be opportunities for sustainable growth in this part of our local economy to meet increasing consumer demand.

Increasing demand for low carbon buildings from business community alongside regulatory pressures is likely to be a catalyst for our commercial property landlords to improve the energy efficiency of their buildings, and we need to consider how we might support them to provide low carbon commercial buildings, to help ensure that Melton remain an attractive place for businesses to operate.

Transport emissions

Transport emissions have remained relatively constant over time, unlike the falls we have seen in other types of emissions, small benefits from more efficient new vehicles and a small number of electric and hybrid vehicles have been offset by an increase in the total number of vehicles. There are more than 3,000 more motor vehicles registered in the Melton borough than there were 10 years ago³.

The borough's population is spread across a wide geographic area and almost the half of the population live in around 70 villages and hamlets. Rural areas like the Melton borough are more car dependent than more urban areas, local people have less frequent public transport options and people tend to live further away from key services and facilities, making access by foot or bicycle less likely.

Over two thirds of people in the borough normally commute to work in a motor vehicle and currently only a few hundred of these motor vehicles are electric. Only 18% of commuter journeys are made using more sustainable transport, mainly walking (12%)⁴, with very few people using trains, buses or cycling to get to work. The Committee for Climate Change recommends rural areas like the Melton borough increase commuter journeys made by public transport, cycling, and walking to 30% by 2030.

The coronavirus pandemic has impacted how we work, homeworking has increased as has interest in cycling and walking. We think there may be an opportunity to build on this to help reduce the use of car for commuting. This includes opportunities to work with Leicestershire County Council to improve cycling and walking routes and connectivity around Melton Mowbray town centre when the new distributor road is completed. Bottesford recently benefited from additional rail services and the Council

³ [Department for Transport, 2020](#)

⁴ [Census, 2011](#)

have also been looking at the potential for improved railway connectivity from Melton Mowbray to further help reduce dependency by car.

As a rural area, there will be limits in how much we can reduce car travel, it will be important to continue to work closely with our parish councils and neighbourhood plan groups to help identify opportunities to do so, but we also recognise that helping local people switch to electric vehicles is likely to be important. There are currently only 8 electric vehicle chargepoints in the Melton borough. We think we will need to do more work to understand where EV chargepoints and expand the access, particularly for households without a private driveway to charge their own vehicle.

The natural environment

The Melton borough is a beautiful rural area with a great quantity and quality of open countryside and public and green spaces. It is sparsely developed and there is lots of potential for nature projects such as tree planting and creation of woodland to store carbon which could also provide amenity and wildlife benefits. Grassland and woodland areas across the Melton borough already help to remove greenhouse gas from the atmosphere, equal to just under 10% of direct local emissions.

Our natural environment is key part of what makes the Melton borough a great place to live, work and visit. Access to green spaces and nature has been shown to help to benefit our mental health and wellbeing. Connecting to the natural environment can also be a good way to engage people on environmental issues and encourage them to value our environment and take action to tackle climate change.

We think there will be many opportunities to create new nature habitats that support local wildlife, biodiversity and our health and wellbeing. The natural environment can also help us adapt to climate change, for example, sustainable drainage solutions can not only improve water quality and enhance the amenity and biodiversity value of the environment, but also help mitigate the increased risk of surface water flooding that is expected alongside climate change.

The Environment Act (2021) is the UK's new framework for environmental protection. It sets out a series of measures to improve air and water quality, tackle waste, increase recycling, halt the decline of species, and improve our natural environment. It provides new local powers that the Council can use to help improve our natural environment, this includes a new requirement for biodiversity net gain from new developments, as well as the development Local Nature Recovery Strategies, local area strategies for nature, which will plan, map, and agree priorities for nature's recovery at a local level.

Management of land has impacts on local emissions, the growing of crops and built up areas both result in greenhouse gas emissions. We can help to reduce these emissions through good land management practices. We can also help adapt to climate change by adding more blue and green infrastructure in our built up areas, for example, street trees, which can provide shade to help cool us in the summer and help to reduce the impacts of flooding.

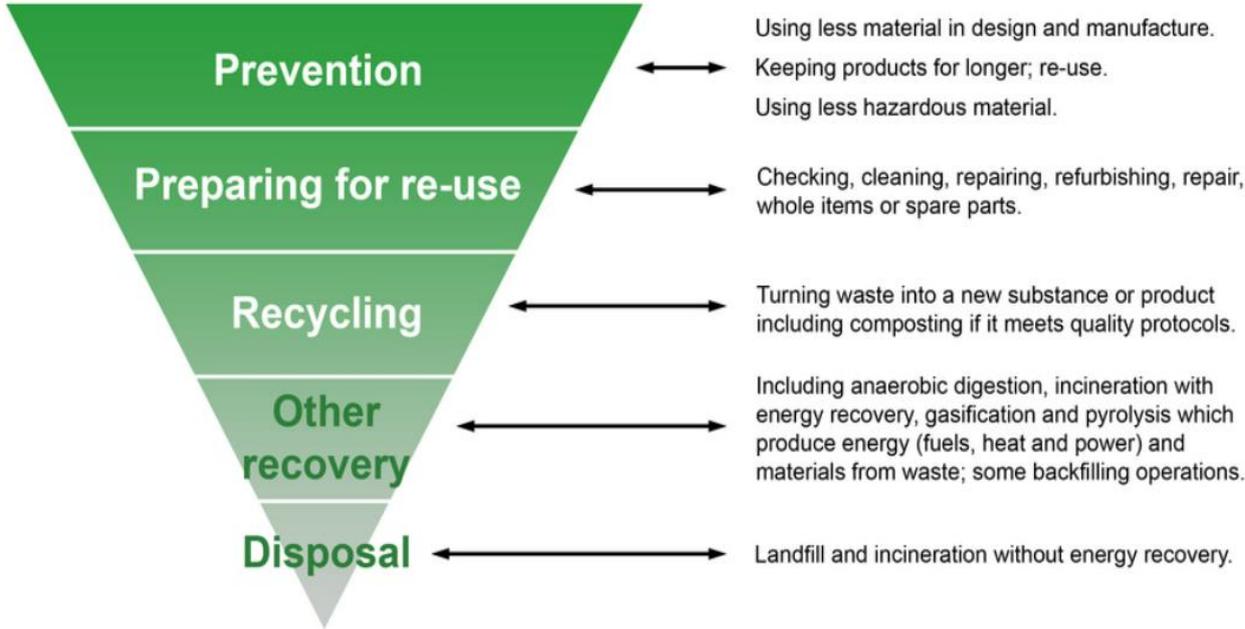
Waste and the use of resources

Everything we buy has a carbon footprint and that footprint can get bigger depending on how we disposed of the things we buy. The Council needs to consider such impacts in what it buys as well as use its leadership role to help inform others to make more sustainable choices.

Melton Borough Council is responsible for household waste collections. Households in Melton produced over 20,000 tons of household waste in 2020, that equated to 400kg of waste for per person. 45% of this household waste is currently recycled, composted or reused⁵. This will need to increase if we are to reduce emissions and the national Resources and Waste Strategy sets 65% recycling rate target by 2035.

To become carbon neutral by 2050 we think we will need to work towards developing the circular economy across Leicestershire. This means we will need to fully embrace the waste hierarchy, by preventing waste and keeping resources in circulation for as long as possible through reuse, repair and recycling, to realise their maximum value whilst minimising environmental impacts.

The Waste Hierarchy



The Council will need to work closely with its partners within the Leicestershire Waste Partnership to deliver a waste management services that encourages prevention, reuse, recycling and reduces waste to landfill. Food waste is the major component within Leicestershire’s residual waste stream, at just over 40% of the total amount,

⁵ [DEFRA, 2021](#)

almost half of which (49%) is suitable for home composting⁶. The Government has set out plans for kerbside food waste collections to be introduced by 2023, which will provide an opportunity to dramatically increase local recycling rates.

We will also need to support and encourage wider waste prevention activity to prevent unnecessary waste arising, for example, through food waste reduction campaigns, and supporting community repair workshops.

We also think that we will need to encouraging businesses to reduce their waste, take up recycling collections and re-use their food waste. There is an opportunity to also engage with them about reducing packaging and making their products more repairable and recyclable.

Renewable energy generation in the Melton borough

40.7 MWh of renewable energy was generated in 2020 within the Melton borough². Almost all was through solar and wind generation, with 16MWh of solar generation spread across 1,198 solar installations (including domestic roof installations) and 19.9MWh from 20 wind turbine installations. That's enough power to provide electricity for around 12,500 typical homes, almost half of the homes in the Melton borough.

We think the Council has an important role in supporting homeowners and tenants to install more local renewable energy generation such as solar panels to local people's homes. The Council recently secured £386,950 to help around 40 lower income homeowners and tenants who live in the least energy efficient homes install solar panels at no cost to them. In addition as part of a £640,000 project to help improve the energy efficiency of the Council's housing stock, the Council will install solar panels to some of our tenants who are not connected to the gas network.

Melton Borough Council's Transition to a Carbon Neutral Organisation

Melton Borough Council has declared a climate emergency. We have also set out our ambition for Council operations to be carbon neutral by 2030. This means as an organisation we will reduce our directly controlled emissions to net zero by 2030.

We have incorporated our climate emergency commitment into our [Corporate Strategy \(2020-2024\)](#) and committed to promote sustainability within the borough alongside reducing our own emissions. This means that climate change has already started to become embedded within the Council's operations and decision-making processes.

⁶ [Leicestershire County Council, 2018](#)

The Council is fortunate to have modern energy efficient main offices; it has for a long time offered flexible homeworking and has pioneered a low paper use office. We are a small and agile Council, and we think we are starting our journey to become operationally carbon neutral from a better place than many other local authorities.

The Council can also provide community leadership by reducing carbon emissions from procured goods and services, from property it owns (including Council housing and commercial properties), and by using its policy and regulatory powers (such as planning policy, building control and licensing) to promote high standards.

The Council has commissioned a baseline assessment to help us better understand what its current emissions are and where action is required. This baseline assessment should report back to the Council in 2022 and it will enable us to start to effectively monitor our emissions, develop an action plan to reduce them and enable us to report our progress in doing so.

The Council has also committed to develop a Climate Change strategy, the feedback from this consultation will help us to develop a draft strategy, which will be subject to consultation later in 2022. This will set out ambitions for not only the Council as an organisation but for how the Council can use its community leadership position to support the whole Borough to become carbon neutral by no later than 2050.

The Council is part of a green partnership group which brings together all the local authorities across Leicestershire, to work towards a more sustainable future, but we think will need to expand our collaboration to all parts of the community. We need to ensure that we are supporting as many people as possible to take action themselves. The Council is looking to develop an engagement plan to set out how we can work effectively alongside local people and other organisations. We think that part of this will be the provision of clear and straightforward information to people about the steps they can take. We also think we need to listen to the public, local businesses and others, to better understand the barriers to change and then work together to find solutions.

More information can be found on [our website](#).