

Green Paper Executive Summary

February 2021

Solihull's response to the Climate Emergency

A Call to Action

Climate change poses an unprecedented threat within the UK and internationally, and action is required across all aspects of society to reduce this threat. In October 2019, Solihull Metropolitan Borough Council recognised the climate emergency and set an ambition of achieving net zero emissions for the Borough by 2041, in-line with the West Midlands Combined Authority ambition.

The UK Climate Projections predict that climate change will cause warmer and wetter winters and hotter and drier summers across the UK, as well as more extreme weather events. Communities across Solihull are already starting to see the effects of extreme weather, with flooding being a particular issue. Governments, citizens and businesses will need to work together to change how we live in Solihull to prevent these effects from worsening.



The Paris Agreement set the international target to limit global temperature rise to 1.5°C above pre-industrial levels.



In June 2019, the UK set a target of achieving net zero emissions by 2050.



In October 2019, Solihull Metropolitan Borough Council acknowledged the climate emergency and pledged that the Borough would achieve net zero emissions by 2041.

Responding to Solihull’s Climate Emergency

As part of Solihull’s commitment to achieve net zero, the Council have committed to developing a Net Zero Action Plan, which will help inform the kind of action that will be needed across the Borough. The Green Paper is the first step towards understanding the key areas that need to change. It explores the Borough’s current carbon footprint and an indicative explanation of what is needed to meet the Borough’s 2041 ambition.

This Executive Summary is a brief overview of the analysis and recommendations in the Green Paper.

We want to ensure that Solihull is ready to make the most of the benefits of reducing emissions, including better air quality, greener natural environments, warmer homes as well as cost savings and new green jobs.

Your Feedback

The Green Paper is a high-level discussion paper to kick-start conversations on how Solihull can achieve its net zero ambition. There are many ways these changes can be tackled, and we are asking for your feedback on how you think these changes can be achieved.

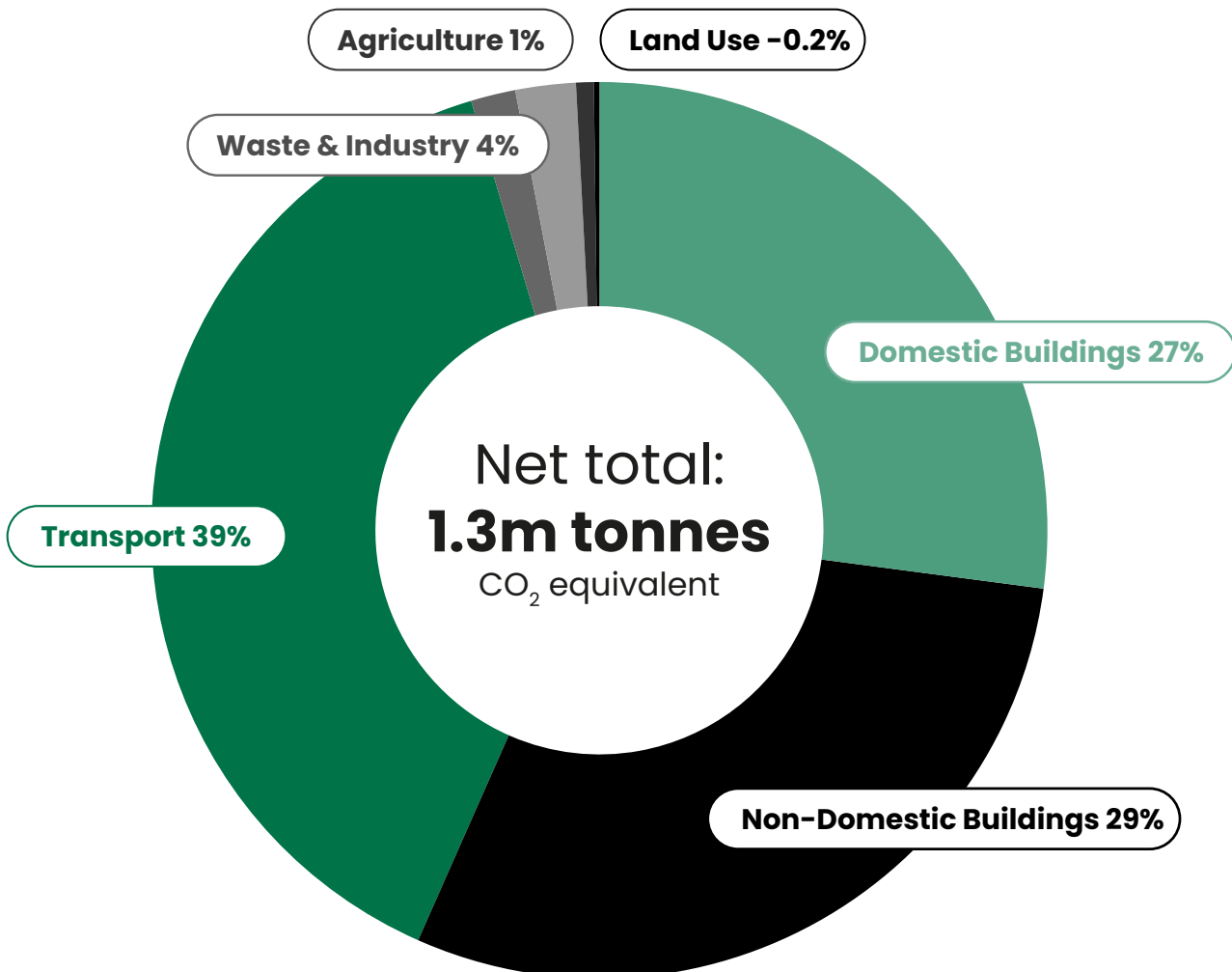
February 2021	March 2021	June 2021	September 2021
Green Paper Public Consultation	Development of Net Zero Action Plan	Net Zero Action Plan Public Consultation	Full Council Decision and Net Zero Action Plan Finalised

Solihull's Emissions

Solihull's Emissions Profile

The chart below shows Solihull's emissions profile for 2017, compiled using the SCATTER Inventory Tool.

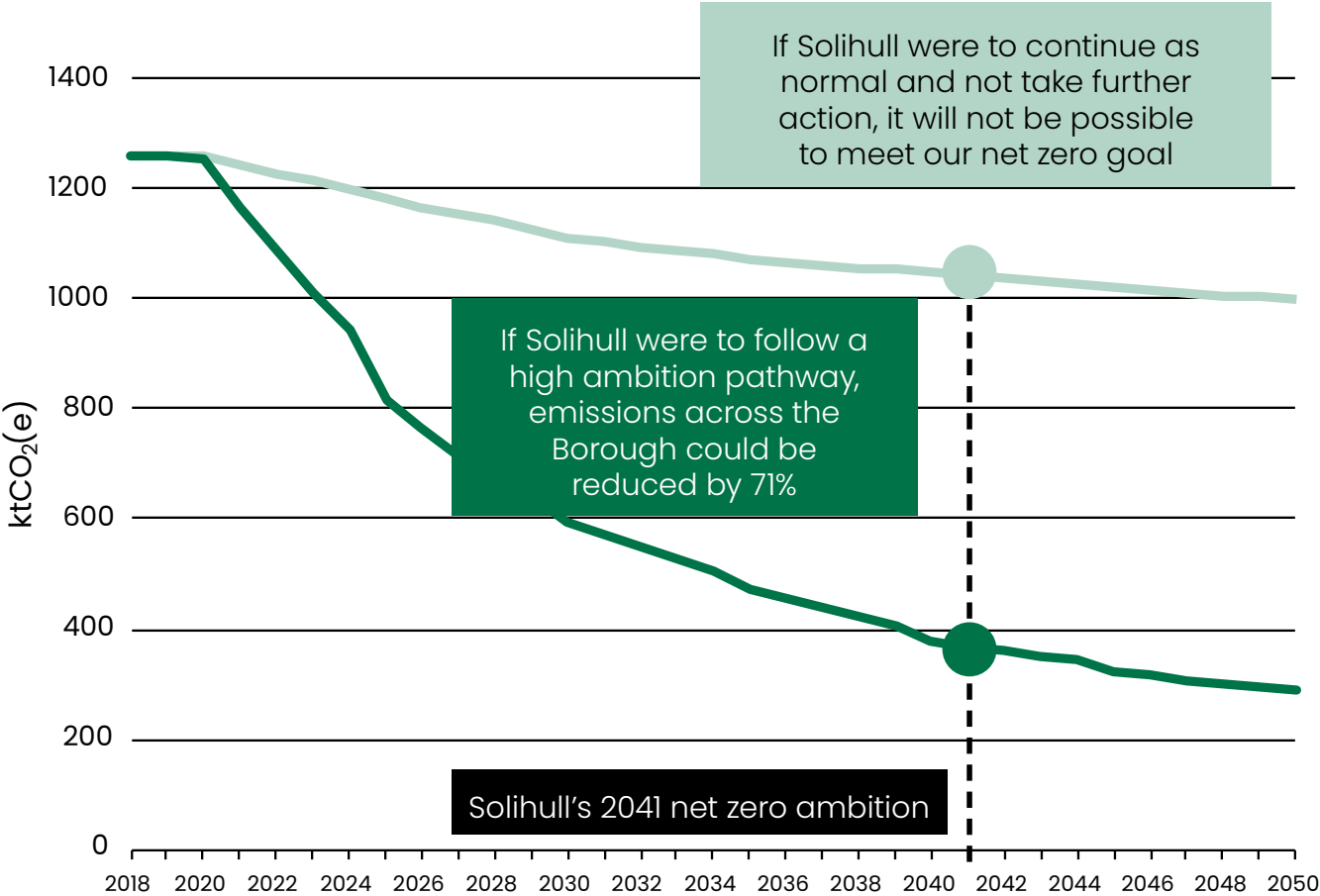
In 2017, the Borough's energy system was responsible for net emissions totalling 1,338 ktCO₂e. The majority resulted from buildings & facilities (orange slices) and transport (blue slice). Land use is a negative value as this represents the storage of carbon within trees or within the land.



Solihull's Future Emissions Pathways

The graph below shows potential emissions pathways for Solihull, plotted to 2050, with Solihull's net zero ambition for 2041 highlighted.

These have been calculated from the SCATTER Pathways Tool, which was made for all Local Authorities in the UK to model the impact of different carbon reduction measures in their area.

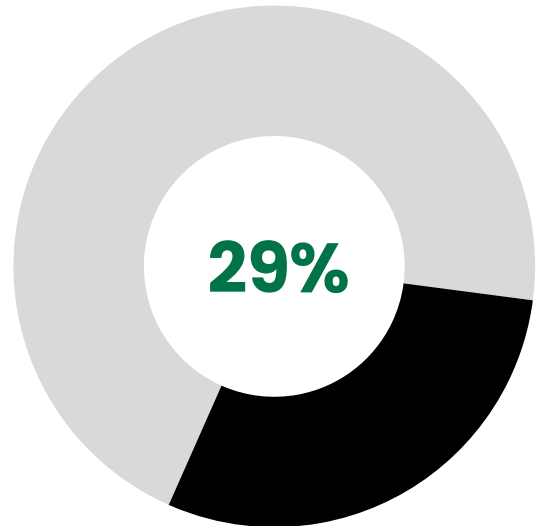


Non-domestic Buildings



What is included?

Non-domestic buildings, including schools, hospitals, shopping centres and offices, use energy for heating and power. The shift to homeworking and home-schooling throughout the COVID-19 pandemic has meant many buildings are temporarily not in use, though some continue to use energy.



What actions can we take?

Other benefits to Solihull

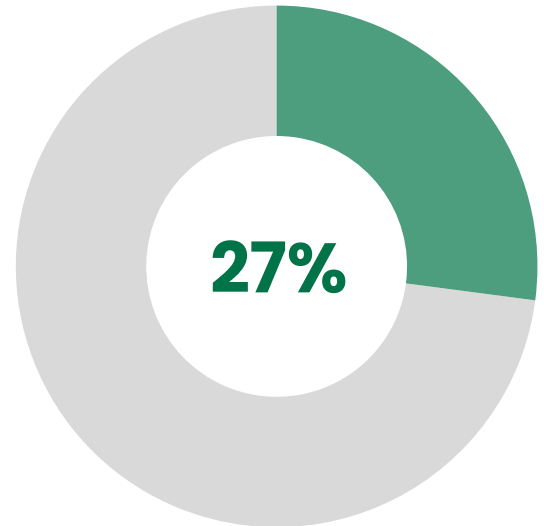
- If schools, hospitals, offices, shops and restaurants across the Borough invested in all profitable energy efficiency options, the Borough could save £13m a year in energy bills.
- For businesses, energy efficient buildings can help improve the health and wellbeing of individuals, with employee sick days decreasing by up to 40%.

Domestic Buildings



What is included?

The energy used to heat our homes and power our appliances also creates emissions. During the COVID-19 pandemic, increases in home energy use has been seen, as many continue to work from home and homeschool.



- **Improved energy efficiency of buildings and homes:** Reducing the amount of energy used in buildings and homes can be done by “retrofitting” (e.g., insulating, draught-proofing).
- **Shifting from high-carbon gas heating systems:** Most buildings and homes use traditional gas boilers to heat spaces, which has a big environmental impact. Shifting to heat pumps, district heating or combined heat and power (CHP) can help reduce this impact. Find out more about our plans for a Town Centre Energy Network to provide an affordable new source of low carbon and renewable energy to town centre buildings.
- **Shifting to low carbon and energy efficient cooking and lighting systems:** To reduce the amount of energy needed for lighting and cooking, more energy efficient appliances should replace current products.

Other benefits to Solihull

- Having more energy efficient homes will help create more comfortable indoor spaces as extreme weather such as heatwaves and snowstorms become more frequent.
- Improving the energy efficiency of homes will also create lots of local jobs in the building industry.
- If Solihull’s residents invested in all profitable energy efficiency options, households within the Borough would collectively save £24m a year in energy bills.

Transport

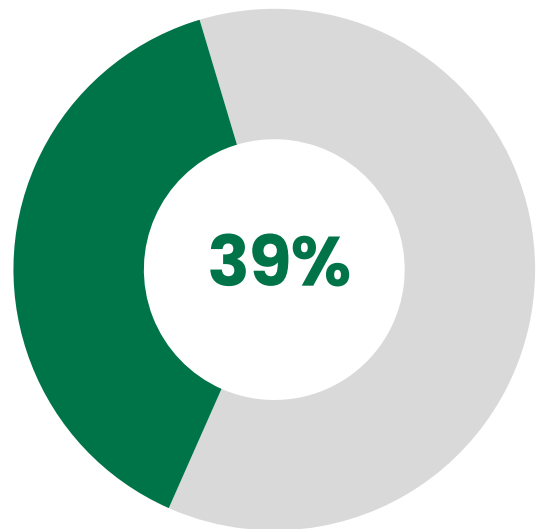


What is included?

Transport is the biggest source of emissions in Solihull, due to the high levels of on-road transport including private car use and road freight.

Other benefits to Solihull

- Reducing transport emissions will help to improve air quality across the Borough - poor air quality is currently linked to 40,000 deaths a year across the UK and has an estimated cost of £54bn per year.
- Driving and flying less also boosts local economy spending and active travel can help improve mental health and wellbeing.



What actions can we take?

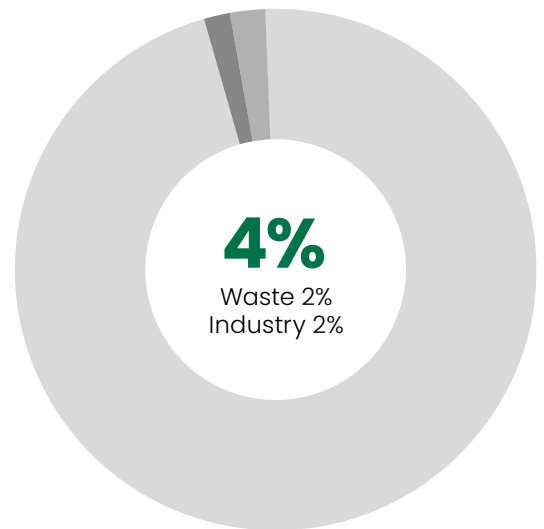
- **Travelling shorter distances:** Reducing the overall amount of distance travelled can help reduce emissions.
- **Driving less:** Walking, cycling and public transport are lower carbon options to getting around the Borough, though some individuals may still need to use cars.
- **Switching to electric vehicles:** Where road travel is still needed, electric or hybrid vehicles, such as cars, trains and buses, can help reduce emissions.
- **Improving freight emissions:** Road freight could be replaced by other lower-emission forms of freight, such as rail.
- **Reducing aviation emissions:** Reducing the need to fly and improving the efficiency of flights can help reduce emissions from aircraft.

Waste & Industry



What is included?

Emissions from waste and industry are relatively small in Solihull. Solihull has many key local industries (such as Birmingham Airport, NEC and JLR), which can help the Borough become a hub for low-carbon technologies and industry innovation. The Borough will continue to build on current levels of waste recycling, composting and generating energy from waste across all waste streams.



Other benefits to Solihull

- Increasing recycling rates reduces the need to grow, harvest and extract new raw materials.
- 50,000 new jobs could be created across the UK if a 70% recycling rate is achieved nationally.
- New low-carbon technologies in the industrial sector can create job across the Borough and provide cost savings to local business.

What actions can we take?

Waste

- **Reduce the quantity of waste:** Reducing the overall amount of waste produced from households, businesses and industries in Solihull will help reduce emissions.
- **Increasing recycling rates:** Increasing the recycling of all types of waste in Solihull will also help reduce emissions.

Industry

- **Shifting from fossil fuels:** Industrial and manufacturing process can reduce their use of fossil fuels and increase low carbon or electric processes.
- **More efficient processes:** Improving the efficiency of industrial processes can help to reduce emissions and save businesses money.

Natural Environment

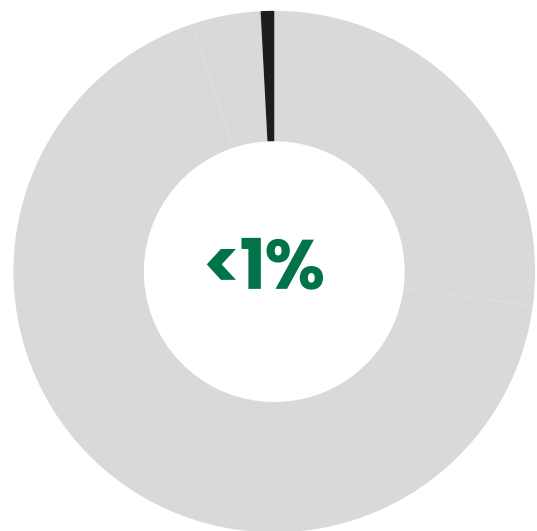


What is included?

Green spaces across Solihull have a role to play in storing carbon emissions from the atmosphere, acting as a carbon “sink”.

Other benefits to Solihull

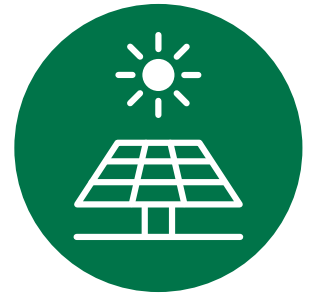
- Trees provide natural shade, reducing temperatures during heatwaves and improving water quality and soil stability.
- Green spaces can also provide areas for communities to come together, helping to improve mental and physical wellbeing.



What actions can we take?

- **Increased tree coverage & tree planting:** Increasing the amount of forest and woodland can help to store more carbon. The Council has pledged to plant 250,000 trees over the next 10 years to support this.
- **Land use management:** Natural resources, freshwater, nature and wildlife, also known as “natural capital”, should be protected and maintained. Increasing the amount of land with grass, trees, or other vegetation, also known as “green space” will help store carbon and help biodiversity thrive.
- **Livestock management:** Livestock such as cows and sheep produce methane which contributes to climate change, depending on the land management practices used. By changing diets to eat less meat, we can reduce the need for large numbers of livestock.

Energy Supply



What is included?

Solihull currently has 8.2 megawatts (MW) of installed renewable energy capacity which is mostly in the form of solar panels.

8.2MW is equivalent to the average electricity use for 2,000 homes for an entire year

Other benefits to Solihull

- As the cost of renewable energy continues to fall, households could see annual reductions in their electricity bills and save money.
- There are already 224,800 full-time individuals currently employed in the renewables sector across the UK.
- Increasing renewable energy can also help improve access to low-cost energy, which is especially important for low-income communities.
- Renewable energies produce little or no air pollution.

What actions can we take?

- **Increase solar photovoltaic capacity:** Solar photovoltaics produce electricity from sunlight. Installing additional solar panels either on buildings or on land will generate more local clean electricity. This can be supported by battery storage.
- **Increase the capacity of other renewable technologies:** This includes solar thermal for heating and anaerobic digestion.

Conclusion & Next Steps

Conclusions

Achieving Solihull's goal of net zero by 2041 will require changes in every aspect of the Borough's activities. However, these changes will also create significant opportunities including attracting investment, improving people's health and wellbeing and creating new jobs. To achieve its goal, the Council will need to:

- Work in close collaboration with West Midlands Combined Authority (WMCA) and the Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP); and
- Support businesses, the third sector, academia and the wider public in understanding the role they can play, as no one group can reach this goal on their own.

Next steps: Solihull Net Zero Action Plan

Each intervention area described in the Green Paper can be achieved through a variety of actions. The next step in the action planning process is to define actions that the Council can take and support others to take, in line with Solihull's inclusive growth plans.

You can help by telling us how you think Solihull can achieve its net zero ambition for the benefit of people and planet.

How can I get involved?

Respond to the online consultation to let us know how you think Solihull can achieve its net zero ambition.

You can also:



Watch:

The information video to hear about the kinds of changes that need to happen to reach Solihull's net zero goal.



Read:

The Green Paper to understand how making these changes will help the people and businesses in Solihull.



Take Part:

In the discussion by attending one of our online drop-in sessions where you can ask questions on the Green Paper.



NetZeroSolihull

netzerosolihull.co.uk