

## West Yorkshire Carbon Emission Reduction Pathways

### Policy Recommendations and Actions Survey

The West Yorkshire Combined Authority and the Leeds City Region Enterprise Partnership (the LEP) declared a climate emergency in the summer of 2019 along with its partner councils. The Combined Authority also strengthened the emission reduction target for West Yorkshire – to be net zero carbon by 2038, and to have shown significant progress by 2030. This was based on West Yorkshire making an equitable contribution to emission reductions required under the Paris Climate Agreement.

This builds on the Leeds City Region Energy Strategy and Delivery Plan (adopted December 2018), the sector-specific low carbon workshops held in summer 2019 and our existing work to address the climate emergency, including:

- The ReBiz programme which support businesses to lower their own emissions
- The Energy Accelerator which funds low carbon energy schemes
- Better Homes Yorkshire – a scheme to improve energy efficiency in homes
- The Clean Bus Technology Fund – a programme to lower emissions of Nitrogen Oxides
- Stourton low energy park and ride
- The Ultra Low Emission Capital Grant Scheme to install charging points for electric taxis and vehicles.

Understanding how West Yorkshire could reach the target is a critical action for the Combined Authority and its partner councils. It helps to identify how we should address the climate emergency, what the priorities for action should be and where emission reductions should be integrated into strategic decisions.

Globally recognised consultancy Element Energy have been commissioned to produce this important piece of work for the region. They have delivered commissions for a wide range of clients including the UK government and its advisers e.g. the Committee on Climate Change, local government, NGOs, consortiums, FTSE100 companies, technology startups and cleantech SMEs.

The Carbon Emission Reduction Pathways (ERP) study is split into three distinct tasks:

- Task 1: Develop carbon emission reduction pathways that demonstrate how each area can deliver / comply with its emission reduction target and carbon budget.
- Task 2: Produce an implementation roadmap based on the pathways.
- Task 3: Produce policy recommendations and an action plan that delivers the activity identified in Tasks 1 and 2.

The outputs of Task 1 have now been completed and a high-level summary of the findings can be found in the Key Findings Report. For further information and the underpinning assumptions please refer to the Technical Report.

While the findings of Task 1 are an important step in understanding how we get towards the 2038 emission reduction target, they are but one part of the jigsaw. It is vital that the policies and actions which underpin the pathway are identified.

Addressing the climate emergency requires urgent and collaborative action by all organisations, businesses, residents and communities with an interest in West Yorkshire. This must be done in an open and transparent way with all stakeholders and partners able to have an input into the design of the policies and actions which will underpin the region's response to addressing the climate emergency over the next 18 years to ensure West Yorkshire is net zero carbon by 2038.

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## General Information

This survey should be read in conjunction with the study's Key Findings Report and the Technical Report.

You may also wish to make yourself familiar with the information that was gathered as part of low-carbon sector-specific workshops held by the Combined Authority in summer 2019 as they are directly relevant to the questions being posed in this survey and could help in informing your response. The summary report can be found [here](#).

The survey will be open to input from stakeholders and partners from **27 July 2020 to 21 August 2020**. The results will be collated and provided to Element Energy to inform Tasks 2 and 3 of the study.

The survey is structured around measures that have been identified in the study for the five sectors which have been investigated: Buildings, Industry, Land-Use and Agriculture, Power, and Transport, and asks a series of questions related to that measure or measures.

To aid in the process of identifying policies and actions we have identified seven themes in which policies and actions can be grouped. These are set out in the table below. We ask that you use this information to guide your response as this will help us when we come to collate all responses. If a policy or action does not relate to any of the broad themes please mark this as 'other'. Multiple policies and actions can be identified for each question.

Theme	Sub-category, explanation, examples
Financial	<ul style="list-style-type: none"> <li>• Capital grants for low carbon technologies</li> <li>• Low interest loans to consumers / businesses or to finance projects</li> <li>• Reduction in taxes, fees, parking costs etc</li> </ul>
Skills and training	<ul style="list-style-type: none"> <li>• Education and training programmes – mapping of skills and supply chains to identify areas which require strengthening. Support the development of a range of training programmes to develop the required skills (e.g. low carbon technology installation)</li> </ul>
Regulatory and planning	<ul style="list-style-type: none"> <li>• Planning applications for buildings and other projects (e.g. wind farms)</li> <li>• Spatial planning e.g. of parking, infrastructure, Clean Air Zone, cycling routes</li> </ul>
Information and coordination	<ul style="list-style-type: none"> <li>• Information and advice services - provide consumers and businesses with information e.g. on available technologies and incentives</li> <li>• Coordination and engagement – coordinate private sector, public sector and consumers to facilitate schemes with climate benefit (e.g. local energy schemes)</li> <li>• Behaviour change and awareness – campaigns to raise awareness among consumers, enhance support for local initiatives and promote behaviour change</li> <li>• Clear target setting and policies – clarity on regional targets, policies and plans to bring confidence to consumers and the market to enable investment</li> </ul>
Research, development and demonstration (RD&D), evidence, and quality assurance	<ul style="list-style-type: none"> <li>• RD&amp;D programmes – support local research programmes and demonstrations e.g. industrial technology trials, exemplar new building projects, ELMS pilots</li> <li>• Evidence gathering – collate evidence required to set standards, verify quality and make decisions on pathways e.g. real-world performance of heat pumps, regional traffic flows, peatland restoration success rates</li> <li>• Quality assurance – promote / inform national QA programmes (e.g. through evidence gathering). Support through regional programmes e.g. verification / certification of heat pump installers</li> </ul>
Delivery and facilitation	<ul style="list-style-type: none"> <li>• Project procurement e.g. develop invitations to tender and specification for public building retrofit programme</li> <li>• Land provision and planning – analysis of public land and identification of project opportunities (e.g. for solar PV)</li> </ul>
Influence and support	<ul style="list-style-type: none"> <li>• Lobbying / influencing e.g. national government on policies</li> <li>• Supporting national programmes e.g. through local administration or supplementing e.g. financial incentives</li> </ul>

The study is necessarily technical, and the information contained within this survey may refer to terms that not all stakeholders and partners are familiar with. A glossary of terms has been produced and can be downloaded from <insert link>.

Enquiries relating to the survey should be sent to [netzero@westyorks-ca.gov.uk](mailto:netzero@westyorks-ca.gov.uk).

Please click '**Next**' to continue...

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## Overview of survey questions

The survey is set out into five sections which correspond with the sectors which the study focusses on. To access the questions contained in the survey for the different sectors please click on the links provided.

### **Buildings**

The buildings section covers questions relating to retrofit, heat provision, non-heating electricity, and infrastructure.

### **Industry**

The industry section covers questions relating to industrial energy and resource efficiency, phase out of coal, oil and gas, carbon capture and storage, research, development and demonstration.

### **Land-use and Agriculture**

The land-use section covers questions relating to land availability, tree planting, peatland restoration, agroforestry, hedgerows and bioenergy. The agriculture section covers questions relating to diet change, food waste reduction, indoor horticulture, livestock stocking densities, and crop yields.

## Power

The power section covers questions relating to speed of decarbonisation, increased renewable electricity generation, energy from waste, carbon capture and storage, phasing out small-scale fossil fuel generators, storage and demand side response.

## Transport

The transport section covers questions relating to travel demand, shift to low emission transport modes, and low emission transport technologies.

Each section also contains a question relating to inclusivity, recognising our continued commitment to inclusive growth and that the transition to a low carbon economy cannot be at the expense of vulnerable and minority groups and residents, communities and businesses of West Yorkshire.

All information will be handled and dealt with in line with the Data Protection Act 2018, as detailed in our privacy notice [here](#).

Q1 [Click here for text](#)

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Please tick to **confirm** that you have read and understood our privacy statement.

Please click '**Next**' to continue...

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The following question will allow you to go to the sector or sectors where you wish to provide input, however if you would prefer to provide a response via email, please email [netzero@westyorks-ca.gov.uk](mailto:netzero@westyorks-ca.gov.uk).

Q2 Please select the sectors in which you wish to answer questions on  
**(select all that apply)**

- ☐ Transport sector policy
- ☐ Power sector policy
- ☐ Industry sector policy
- ☐ Buildings sector policy
- ☐ Land-Use and Agriculture sector policy

[Click here for text](#)

## Transport Sector Policy

The following questions relate to the measures that have been identified in the transport section of the Carbon Emission Reduction Pathways study. For further information please refer to page X of the Key Findings Report and pages 22-39 and 116-127 of the Technical Report.

## Travel demand

The questions in this section relate to the measures that have been identified in the study to reduce emissions through travel demand reduction.



[Click here for text](#)

## Passenger transport demand

Q3 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q4 All pathways require a reduction in private car use. The levels of reduction necessary range from 38% to 43% in 2038 depending on the pathway.

**Thinking about this...**

What are the policies and actions that could be implemented to achieve the scale of change modelled?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

Where has policy or action been implemented to reduce private car use and how successful has it been in reducing emissions?

Q5 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q6 Significant reductions in passenger demand for travel are required across the pathways. The levels of demand reduction that could be achieved range from 12% to 15% depending on the pathway. Home working, teleconferencing and locating housing in closer proximity to workplaces and amenities are all considered measures that would achieve the levels of demand reduction necessary.

**Thinking about this, what are the policies and actions that could be implemented for...**

Home working?

Teleconferencing?

Locating housing closer to workplaces and amenities?

Q7 Also, considering the above statement...

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to reduce passenger demand for travel and **how** successful has it been in reducing emissions?

Q8 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q9 Pro-environmental trends and behaviour have been identified during the COVID-19 pandemic which have resulted in reduced emissions.

**Thinking about this...**

What are the policies and actions that could be implemented to capitalise on these trends and behaviours?

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How could they be incorporated into the economic recovery and achieve emission reductions above and beyond what is identified in this study?

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[Click here for text](#)

## Freight transport demand

Q10 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q11 All pathways require a reduction in van and HGV activity. The levels of reduction range from 1% to 10% for vans and 15% to 20% for HGVs depending on the pathway.

**Thinking about this...**

What are the policies and actions that could be implemented to achieve the scale of change modelled?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to reduce van and HGV activity and **how** successful has it been in reducing emissions?

Q12 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q13 Freight consolidation and food / consumer waste reduction could contribute to reducing freight travel demand by up to 10% for vans and 11% for HGVs by 2038.

**Thinking about this, what are the policies and actions that could be implemented to achieve the scale of change through the following...**

Freight consolidation?

Food / consumer waste reduction?

Q14 Also, considering the above statement....

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to deliver freight consolidation or food / consumer waste reduction and **how** successful has it been in reducing emissions?

Click here for text

Aviation demand

Q15 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

Please also reference the theme as you comment.

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q16 All pathways require domestic aviation demand to reduce by 20% primarily through a reduction in business trips.

Thinking about this...

What are the policies and actions that could be implemented to reduce business trips via aviation?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to reduce business trips by air and **how** successful has it been in reducing emissions?

Q17 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q18 International aviation growth cannot exceed 25% of current passenger numbers under the High Hydrogen and Balanced pathways. Under the Max Ambition pathway, no growth is assumed.

**Thinking about this...**

What are the policies and actions that could be implemented to limit aviation passenger numbers to those modelled?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to limit growth in international aviation and **how** successful has it been in reducing emissions?

**[Click here for text](#)**

## Shift to low emission transport modes

The questions in this section relate to the measures that have been identified in the study to reduce emissions through shifting travel to low emission modes.



[Click here for text](#)

## Passenger travel shift

Q19 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q20 A higher proportion of travel in 2038 will need to be by public and shared transport or through active travel e.g. walking and cycling, with up to 36% of passenger distance transferring from the private car to these modes.

### Thinking about this...

What are the policies and actions that could be implemented to persuade people to use public, shared and active travel over the private car?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to switch private car use to public, shared and active travel and **how** successful has it been in reducing emissions?

Q21 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q22 All pathways require a significant increase in travel undertaken by walking (minimum 60% increase) and cycling (minimum 20-fold increase), replacing more polluting forms of travel for shorter journeys.

**Thinking about this...**

What are the policies and actions that could be implemented to deliver the scale of increase needed for walking and cycling?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to significantly increase walking and cycling and **how** successful have they been in reducing emissions?

Q23 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q24 Bus and train capacity increases (up to 20% for buses and trains respectively) will be needed to enable the shift from the private car.

**Thinking about this, what are the policies and actions that could be implemented to increase...**

Bus capacity?

Train capacity?

Make both modes more attractive to use?

Q25 Also, considering the above statement....

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to increase bus and train capacity and **how** successful has it been in reducing emissions?

[Click here for text](#)

## Freight travel shift

Q26 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q27 While most of the freight in 2038 will still be transported by road it will be necessary to transfer some freight to other modes i.e. the heaviest loads to rail (up to 12% of HGV freight shifted to rail); first and last mile to cycle freight (up to 2% of van freight shifted to cycle freight).

**Thinking about this, what are the policies and actions that could be implemented to shift freight from...**

HGVs to rail?

Vans to cycle freight?

Q28 Also, considering the above statement....

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to shift freight and **how** successful has it been in reducing emissions?

**[Click here for text](#)**

## Low emission technology

The questions in this section relate to the measures that have been identified in the study to reduce emissions through the deployment of low emission technologies.

[Click here for text](#)

## Low emission technology

Q29 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q30 Conventional petrol and diesel internal combustion engine sales will need to end by 2035 for cars and vans (2030 under the Max Ambition pathway) and by 2031 for buses under the modelled pathways.

**Thinking about this, what are the policies and actions that could be implemented to end sales of petrol / diesel vehicles for...**

Cars / vans?

Buses?

Q31 Also, considering the above statement....

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

Q32 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q33 Sales of internal combustion engine HGVs are likely to continue until 2040, however switching to biomethane-fuelled vehicles could enable faster emissions reductions and help to end conventional sales earlier.

**Thinking about this...**

What are the policies and actions that could be implemented that enable biomethane to decarbonise HGVs?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to switch HGVs to biomethane or enable biomethane infrastructure to be put in place and **how** successful has it been in reducing emissions?

Q34 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q35 An end to sales of petrol and diesel vehicles requires other low emission technologies to be on sale and in significant volumes. The pathways suggest zero emission car sales will need to be in the region of 40,000 to 50,000 per year and zero emission HGVs sales to be in the region of 1,000 to 2,000 per year by 2038.

**Thinking about this...**

What are the policy mechanisms and actions that could be implemented to achieve the scale of sales needed given that less than 7,000 zero emission cars were sold in the region in 2018?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to increase sales of zero emission vehicles and **how** successful has it been in reducing emissions?

[Click here for text](#)

## Low emission technology

Q36 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q37 A significant proportion of vehicle activity in 2038 will be by battery electric (between 39% and 72%), hydrogen fuel-cell (between 3% and 17%), plug-in hybrid (between 10% and 14%) and hybrid (between 4% and 7%) vehicles.

**Thinking about this...**

What are the policy mechanisms and actions that could be implemented to deliver the scale of vehicle activity modelled in the pathways?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

Q38 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other



- Q39 To facilitate the switch to rail for both passengers and freight and for this to reduce emissions, between 80% and 90% of the distance travelled needs to be via electric rather than diesel trains. Not all lines in West Yorkshire are electrified, therefore significant infrastructure upgrades will be necessary to achieve the shift required.

**Thinking about this...**

What are the policy mechanisms and actions that can be put in place to electrify rail infrastructure in West Yorkshire?

What are the alternatives to electrification of rail infrastructure and how can they help to reduce emissions?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

Where has policy or action been implemented to provide an alternative to diesel trains and how successful has it been in reducing emissions?

- Q40 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

- Q41 Transitioning to low emission vehicles will increase demand for electricity (up to 2.5 TWh) and hydrogen (up to 1.1 TWh) as these fuels predominantly replace petrol and diesel.

**Thinking about this...**

What are the policy mechanisms and actions that need to be put in place to produce and access these fuel sources?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to enable refuelling by electricity and/or hydrogen and **how** successful has it been in reducing emissions?

Q42 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q43 All pathways assume limited progress to decarbonise aviation through technology beyond fuel efficiency savings and therefore look to limit demand.

**Thinking about this...**

What are the policy measures and actions that could be put in place to accelerate the development of technologies which could decarbonise aviation and allow aviation demand to increase?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** has policy or action been implemented to accelerate the deployment of technologies and **how** successful has it been in reducing emissions?

[Click here for text](#)

## Inclusivity

Q44 Thinking about the questions and measures that have been outlined in this section, what policies and actions should be implemented to ensure that the deployment of the measures identified help to reduce inequality and benefit the most disadvantaged?

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## Power Sector Policy

The power section covers questions relating to speed of decarbonisation, increased renewable electricity generation, energy from waste, carbon capture and storage, phasing out small-scale fossil fuel generators, storage and demand side response.

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Q45 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q46 The Max Ambition pathway requires a rapid deployment of low carbon technologies to achieve rapid decarbonisation in the 2020s.

**Thinking about this...**

What policy mechanisms and actions could be put in place to ensure this occurs within the 2020s?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q47 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q48 Under all pathways an increase in electricity generation from renewable sources is required. Biomass (up to 0.2 TWh / yr), solar PV (up to 0.4 TWh / yr), and onshore wind (up to 0.8 TWh / yr) are the dominant renewables.

**Thinking about this, what policy mechanisms and actions should be implemented to enable the scale of generation from those technologies identified above to be achieved?**

Biomass

Solar PV

Onshore wind

Q49 **Also, considering the above statement....**

**Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?**

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q50 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q51 Alongside renewables a significant proportion (1.0 TWh / yr) of electricity will be generated by energy from waste facilities in 2038. A further 0.3 TWh / yr will be generated by energy from waste facilities fitted with carbon capture and storage technology.

**Thinking about this...**

What policy levers and support could be implemented to facilitate the retrofit of carbon capture and storage technology to energy from waste plants in the region?

How could these levers be used to accelerate the pace of carbon capture and storage retrofits to existing energy from waste facilities?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

Q52 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q53 A large amount of existing electricity generation capacity is through small-scale fossil fuel generators. To ensure emissions are reduced and to contribute to the decarbonisation of the National Grid these generators will have to be phased out.

**Thinking about this...**

What policy mechanisms and actions should be implemented to reduce the number of small-scale fossil fuel electricity generators?

Conversely what policies and actions should be put in place to ensure these generation sources are replaced with renewable alternatives?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q54 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q55 Battery storage is considered at a high-level within the study and suggests between 59 MW and 140 MW of capacity is required depending on the pathway.

**Thinking about this...**

What policy mechanisms and actions need to be implemented to ensure the delivery of battery storage of the magnitude required?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q56 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q57 Compressed air and liquid air are other types of electricity storage technology that could assist in the utilisation of high-levels of renewable energy. These technologies are fairly new from an energy storage perspective and are not expected to contribute high amounts of storage capacity.

**Thinking about this...**

What policy measures and actions could be implemented to develop compressed air and liquid air as storage technologies?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal (not necessarily relating to compressed / liquid air) and **how** successful have they been in reducing emissions?



Q58 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q59 Demand side response (DSR), the willingness of consumers to shift their consumption due to external signals, such as price, adds flexibility to the electricity grid and helps to reduce peak demand for electricity, as well as the infrastructure requirements to supply the demand. A 10% reduction in peak demand is considered to be achieved by DSR in the 2030s through the study.

**Thinking about this...**

What policy mechanisms and actions could be implemented to deliver this level of intervention?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieved a similar goal and **how** successful have they been in reducing emissions?

[Click here for text](#)

Inclusivity

Q60    Thinking about the questions and measures that have been outlined in this section, what policies and actions should be implemented to ensure that the deployment of the measures identified help to reduce inequality and benefit the most disadvantaged?

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## Industry Sector Policy

The industry section covers questions relating to industrial energy and resource efficiency, phase out of coal, oil and gas, carbon capture and storage, research, development and demonstration.

[Click here for text](#)

[Click here for text](#)

Q61 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q62 Under all pathways energy efficiency measures could help to reduce energy use by between 15% and 40% depending on the industry.

**Thinking about this...**

What are the policy interventions and actions that could be implemented to achieve energy use reductions of the magnitude required through energy efficiency?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q63 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q64 Under all pathways resource efficiency e.g. reductions in material inputs, increased recycling and switching of material end-uses, could help to reduce energy use by between 15% and 40% depending on the industry.

**Thinking about this...**

What are the policy interventions and actions that could be implemented to achieve energy use reductions of the magnitude required through resource efficiency?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q65 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q66 All pathways require coal and oil to be phased out and natural gas to be replaced in industrial applications during the 2020s with electricity, bioenergy, or hydrogen.

**Thinking about this, what policy mechanisms and actions should be implemented to enable oil, coal and natural gas use in industrial applications to be replaced with...**

Electricity?

Bioenergy?

Hydrogen?

Q67 **Also considering the above statement...**

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q68 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q69 Carbon capture and storage will be necessary to reduce emissions from those industrial applications where process emissions are hardest to decarbonise. In West Yorkshire this applies to the large facilities in the glass and chemicals sectors.

**Thinking about this...**

What policy mechanisms and actions should be implemented to enable carbon capture and storage to be applied to glass and chemicals facilities?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

Q70 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q71 Given the importance of carbon capture and storage to the decarbonisation of industry...

What policy mechanisms and actions could be implemented to assist in the development of carbon capture and storage infrastructure?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

Q72 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q73 There is currently a lack of industrial equipment that can run on low carbon fuels, therefore research, development and deployment (RD&D) will be necessary if industry is to fully decarbonise.

**Thinking about this...**

What policy mechanisms and actions should be implemented to increase RD&D activity and how could they be applied to the industry in the region?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented (not necessarily in relation to industrial equipment RD&D) to achieve a similar goal and **how** successful have they been in reducing emissions?

[Click here for text](#)

## Inclusivity

Q74 Thinking about the questions and measures that have been outlined in this section, what policies and actions should be implemented to ensure that the deployment of the measures identified help to reduce inequality and benefit the most disadvantaged?



**[Click here for text](#)**

## Buildings Sector Policy

The buildings section covers questions relating to retrofit, heat provision, non-heating electricity, and infrastructure.

Click here for text

Retrofit

Q75 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

Please also reference the theme as you comment.

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q76 All pathways required 679,000 homes to be retrofitted to at least EPC C rating by 2038. To place this into context West Yorkshire has over 1 million homes of which 32% are EPC C rating or higher.

Thinking about this...

What are the policy mechanisms and actions that could be implemented to enable this scale of retrofit to be implemented?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been?

[Click here for text](#)

## Heating

Q77 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q78 Heat pumps will form a significant proportion of the heating systems installed in West Yorkshire by 2038, with between 129,000 and 658,000 homes and between 15% and 39% of non-domestic heat supplied. In addition, hybrid heat pumps will also supply between 8% and 16% of non-domestic heat and between 7,000 and 229,000 homes. To place into context less than 1,800 domestic heat pump systems are currently installed in West Yorkshire.

### Thinking about this...

What are the policy mechanisms and actions that could be implemented to enable the scale of heat pump deployment necessary?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q79 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q80 District heat networks will form a significant proportion of the heating systems installed in West Yorkshire by 2038, with between 196,000 and 203,000 homes and between 12% and 16% of non-domestic heat supplied. In addition, communal heating will also supply between 10% and 12% of non-domestic heat and between 16,000 and 48,000 homes.

**Thinking about this...**

What are the policy mechanisms and actions that could be implemented to enable the scale of district and communal heating deployment necessary?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q81 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q82 The High Hydrogen and Balanced pathways identify hydrogen as a potential additional option to decarbonise buildings. In these two pathways hydrogen would be a significant provider of heat to buildings, with between 171,000 and 515,000 homes and 11% to 27% of non-domestic heat supplied. There are currently no hydrogen boilers installed in West Yorkshire and it is assumed the gas grid would supply hydrogen by 2028.

### Thinking about this...

What are the policy mechanisms and actions that could be implemented to enable hydrogen to provide the scale of heat provision necessary?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

Where **have policies been implemented to achieve a similar goal (not necessarily in relation to hydrogen) and how successful have they been in reducing emissions?**

Q83 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

### Please also reference the theme as you comment.

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q84 Some buildings will not be suitable for heat pumps, hydrogen or district / communal heating systems (between 33,000 and 162,000 homes and 7% of non-domestic heat supply depending on the pathway) due to space or efficiency constraints, therefore direct electric heating systems will be required.

### Thinking about this...

What are the policy mechanisms and actions that could be implemented to ensure where direct electric heating systems are required this contributes to reducing emissions?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

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## Non-heating electricity

Q85 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q86 All pathways require an increase in the number of rooftop solar PV systems with 171,000 domestic installations and 95 GWh/yr generated on non-domestic buildings by 2038.

### Thinking about this...

What are the policy mechanisms and actions that could be implemented to ensure the scale of roof-top solar PV required can be delivered?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

Where **have policies been implemented to achieve a similar goal and** how **successful have they been in reducing emissions?**

[Click here for text](#)

## Infrastructure

Q87 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q88 Large-scale infrastructure investment will be required across all the pathways, including strengthening the electricity grid to cope with increased demand, converting the natural gas network to hydrogen, and accelerating the rate of deployment of district heat networks.

### Thinking about this...

What policy interventions and actions can be implemented to accelerate these large-scale infrastructure investments?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?



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Inclusivity

Q89    Thinking about the questions and measures that have been outlined in this section, what policies and actions should be implemented to ensure that the deployment of the measures identified help to reduce inequality and benefit the most disadvantaged?

**[Click here for text](#)**

## Land-Use and Agriculture Sector Policy

The land-use section covers questions relating to land availability, tree planting, peatland restoration, agroforestry, hedgerows and bioenergy. The agriculture section covers questions relating to diet change, food waste reduction, indoor horticulture, livestock stocking densities, and crop yields.

Click here for text

Land-Use

Q90 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q91 There is limited land availability in West Yorkshire to deliver land-based emissions mitigation e.g. tree planting. This is due to the urban expansion, a high population, and competing uses for land. All pathways require trade-offs to be made in land-use choice e.g. provision of employment, land-based mitigation activities, other land-uses such as renewable energy and urban expansion.

**Thinking about this...**

What policy mechanisms and actions could be implemented to make more land available for land-based mitigation activities?

What policy mechanisms or actions could be implemented to take these trade-offs into account and account for carbon reduction as a valuable output?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q92 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q93 All pathways require a minimum of 170 hectares of new woodland / forest to be planted in West Yorkshire, an increase over the 9,500 hectares currently planted in the region.

Thinking about this, what policy mechanisms and actions could be implemented to deliver the scale of tree planting that is...

In line with the recommendations of the pathways?

Enables an increased area to be planted with trees?

Q94 Also, considering the above statement....

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

Where **have** policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q95 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q96 The Max Ambition pathway requires 100% of lowland peat and 60% of upland peat in West Yorkshire to be restored by 2038.

**Thinking about this, what policy mechanisms and actions could be implemented to deliver the scale of peatland restoration that...**

Is in line with the recommendations of the Max Ambition pathway?

Enables a greater percentage of upland peat to be restored?

Q97 **Also, considering the above statement....**

**Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?**

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q98 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q99 A small emission reduction has been estimated across the pathways from agroforestry measures with 9% of cropland converted to alley cropping and 11% of permanent and rough grazing converted to woodland grazing by 2038.

**Thinking about this, What policy mechanisms and actions could be implemented to deliver the scale of existing land conversation to agroforestry that is...**

in line with the recommendations of the pathways?

Enables a greater percentage of existing land to be converted to agroforestry?

Q100 **Also, considering the above statement...**

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q101 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q102 Hedgerow length increase (only on permanent and temporary grassland) has not been considered within the pathways for West Yorkshire due to space constraints and as a result does not contribute to emission reductions.

**Thinking about this...**

What policy mechanisms or actions could be implemented to enable an increase in the length of hedgerows in West Yorkshire?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q103 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q104 The Max Ambition pathway requires bioenergy crops to reach over 5,700 hectares by 2038. What policy mechanisms or actions could be implemented to enable the scale of bioenergy crops required?

**Thinking about this...**

What policy mechanisms or actions could be implemented to enable the scale of bioenergy crops required?

--

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

--

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

--

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## Agriculture

Q105 Please select which theme you will be referencing in your reply to the following question. (**Please tick all that apply**)

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q106 All pathways require some form of reduction in red meat and dairy consumption with a 32% reduction necessary in the Max Ambition pathway.

### Thinking about this...

What policy mechanisms and actions could be implemented to deliver reduction in red meat and dairy consumption?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?



Q107 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q108 All pathways require some form of reduction in food waste with a 38% reduction necessary in the Max Ambition pathway.

**Thinking about this...**

What policy mechanisms and actions could be implemented to deliver reductions in food waste?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q109 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q110 Between 6% and 28% of horticulture will be required to move indoors depending on the pathway.

**Thinking about this...**

What policy mechanisms and actions could be implemented to deliver this change?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q111 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q112 An increase in livestock stocking densities (up to 7%) will be required in depending on the pathway.

**Thinking about this...**

What policy mechanisms and actions could be implemented to deliver this change?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

Q113 Please select which theme you will be referencing in your reply to the following question. **(Please tick all that apply)**

**Please also reference the theme as you comment.**

- ☐ Financial
- ☐ Skills and training
- ☐ Regulatory and planning
- ☐ Information and coordination
- ☐ Research, development and demonstration (RD&D), evidence, and quality assurance
- ☐ Delivery and facilitation
- ☐ Influence and support
- ☐ Other

Q114 Improving crop yields will assist in reducing agricultural emissions through reducing the area of cropland required to maintain existing yields.

**Thinking about this...**

What policy mechanisms and actions could be implemented to help improve crop yields?

Who are the stakeholders that should be involved in developing and implementing the policy or action you have described?

**Where** have policies been implemented to achieve a similar goal and **how** successful have they been in reducing emissions?

[Click here for text](#)

## Inclusivity

Q115 Thinking about the questions and measures that have been outlined in this section, what policies and actions should be implemented to ensure that the deployment of the measures identified help to reduce inequality and benefit the most disadvantaged?

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About You

Thank

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As part of this research we may follow up on feedback, if you are happy for this to happen, please complete the following section. This is completely **optional**, but would go a long way in helping us understand insights further.

All information will be handled and dealt with in line with the Data Protection Act 2018, as detailed in our privacy notice **here**.

Q116 Click here for text

- ☐ Please tick to confirm that you have read and understood our privacy statement and agree to be contacted by a member of the Combined Authority project team.
- ☐ I do not wish to be contacted and would like to submit my responses

Q117 Name:

Q118 Organisation:

Q119 Position held:

Q120 Please select your preferred method of contact:

- ☐ Email
- ☐ Post
- ☐ Tel

Q121 Email

Q122 Address line 1:

Address line 2:

Town/City

Postcode

Q123 Phone number

**Click here for text**

**Click here for text**

Thank you for your response, it will go a long way to shaping the design of the policies and actions which will underpin the region's response to addressing the climate emergency over the next 18 years to ensure West Yorkshire is net zero carbon by 2038.