

Monmouthshire County Council Climate Emergency Strategy October 2019



Title	Climate Emergency Strategy
Purpose	This strategy outlines the council's response to the climate emergency declared in May 2019
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Foreword

The purpose of Monmouthshire County Council is building sustainable and resilient communities. This feels more relevant than ever. In 2019 no one can be blind to the threat that climate change poses to our eco-systems, our local environment and our way of life. Carbon emissions from fossil fuels are one of the main causes of climate change and as a council we are striving to become carbon neutral by 2030.

If we are to stand a chance of slowing the rise in the Earth's temperature we need to act now. Earlier this year councillors in Monmouthshire were unanimous in declaring a climate emergency. We intend to play our part in tackling this issue and we will work with communities and local businesses to help them reduce their emissions. This will requirement engagement, community involvement and commitments from third parties.

We have made a start:

- We have called for our pension fund to divest its fossil fuel investments and have seen the proportion of the fund invested in such firms decline from 9.10% to 6.95% since 2018;
- We have built a solar farm which is contributes towards the £650,000 worth of renewable energy we put into to the national grid each year;
- More than 99% of the energy we buy comes from renewable sources.

And we will continue to do more:

- Developing an investment programme to help our services transition to a low carbon future
- Piloting the use of locally designed and built hydrogen powered cars;
- Trialling digital solutions which make it easier for people to travel through better use of existing transport capacity;
- Installing a network of charging points for electric vehicles.

We will do this while continuing to provide the services which form part of the social foundations on which our communities are built. We know that this will not be easy. It needs bold thinking and we don't yet have all of the answers. Monmouthshire is blessed with a rich tapestry of caring and committed people, businesses and community groups that make this place what it is. Now, perhaps more than at any time in the past, we need everyone to get behind this commitment and play their part in securing a better tomorrow.



Cllr Jane Pratt, Cabinet Member for Infrastructure and Neighbourhood Services

Monmouthshire 2030: A Carbon Neutral Council

Why this matters?

Tackling climate change and moving to a low carbon economy is one of the biggest challenges facing our society. Rising temperatures bring increased risks to our communities and are causing long-term and potentially irreversible damage to our planet's eco-systems, with significant local impacts such as flooding and loss of species.¹ By 2030 this council aspires to reduce its net carbon emissions to zero while continuing to deliver important local services to our communities.

Carbon emissions from fossil fuels are one of the main causes of climate change. The scientific consensus is that human activity since industrialisation has been the major factor in the recent warming of the Earth's surface. It will take action and ingenuity from humans to halt it.

Climate change, deforestation and agriculture mean the ability of the planet to lock up carbon is reducing. Soil is being eroded at a quicker rate than new soil can be formed while melting ice is contributing to rising sea levels and releasing carbon previously trapped beneath frozen land. These changes result in feedback loops where rising temperatures accelerate the degradation of land and soil through drought, desertification and rising sea levels. This in turn increases the volume of greenhouse gases being released by land, further accelerating global warming.



Time to Act

If we are to stand a chance of addressing climate change and slowing the rise in the Earth's temperature there is a narrow window of opportunity to take action. The International Panel on Climate Change has indicated that rises above 1.5 °C will affect the ability of the planet to sustain human life as we know it and that crucially, without significant change, that figure will be passed by 2030. In short, we don't have long to act.

In May 2019 Monmouthshire County Council unanimously passed a motion declaring a climate emergency². This sets out a clear policy commitment for the council to:

- strive to reduce its own carbon emissions to net zero in line with the Welsh Government target of 2030;
- encourage and support residents and businesses to take their own actions to reduce their carbon emissions;
- Work with partners across the county and other councils and organisations to help develop and implement best practice methods in limiting global warming to less than 1.5 °C.

This must be done while continuing to provide the services which create the social foundations our communities are built upon and which no-one should be without. These include the commitments within the council's Social Justice Strategy. Our challenge is to find a way to exist in the safe space between the ecological limits of the planet while continuing to provide these social foundations³. The Cabinet Member for Infrastructure and Neighbourhood Services will chair a group to oversee progress and ensure that the council's plans are continually challenged to reduce carbon and incorporate

emerging technology and concepts. This will require bold thinking, we do not yet have all of the answers and will continue to seek out the people, ideas and evidence about what works and apply this in Monmouthshire.

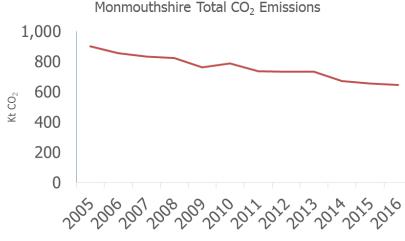
The Benefits of Action

As well as the global and moral imperative to act on climate change we can also expect to see multiple local benefits from moving to a lower carbon society:

- Lower energy bills for residents and businesses
- Better air quality and the resulting health benefits
- Shorter commuting times between home, work and school
- Increased use of active travel like walking and cycling which can help improve peoples' health
- Less damage to the local environment from drought, floods and fire
- Increased demand for green technologies and the resulting potential for job growth in these sectors
- Better habitat management, increased biodiversity and creation of green space
- Increased connectivity between people and the environment and more globally responsible citizens

Local Carbon Emissions

Climate is a global issue but we all have a part to play. If we are to reduce our net emissions we need to understand what they are now – both in our county and our organisation. Emissions per head of population across Monmouthshire are above UK levels. Since 2005 net carbon emissions in the county have reduced by 28% from 903 kilotonnes to 648 kilotonnes per year while our population has increased by 7%⁴. Although the emissions have reduced, this is still a weight the equivalent of 54,000 London double decker buses.

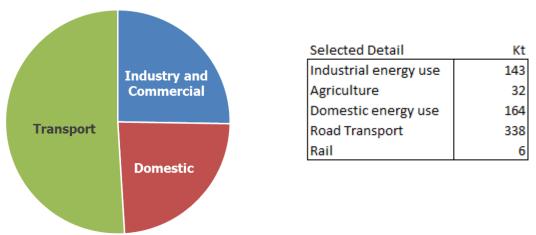


⁽Source: UK local authority dioxide emissions, National Statistics)

The downward trajectory mirrors a similar trend as across the UK as a result of things like an increase in the use of cleaner energy. Over this time we have also seen an increase in carbon captured in the county from 17 to 43 kilotonnes but the amount captured is less than 7% of the total

CO₂ produced⁵. If decarbonisation were to continue at this rate we would not be carbon neutral until after 2050, too late to prevent catastrophic climate change. We need to do more.

Carbon emissions in the county come from a range of sources including industry, agriculture, road transport and domestic homes. The biggest single contributor is transport and in particular road transport. This is shown in the chart below⁶:



Source of Monmouthshire Emissions

(Source: UK local authority dioxide emissions, National Statistics)

Monmouthshire County Council will strive to reduce its own emissions while working with partners, including members of the Public Service Board, local businesses and community groups to reduce emissions and improve carbon capture across the county as a whole from things like trees, vegetation and green infrastructure which help to sequester and store carbon.

Data from our own organisation shows that we generate approximately:

- 8,700 tonnes from static assets such as buildings and street lighting (the weight of 725 double decker buses)
- 3,000 tonnes from council vehicles like buses and refuse trucks, plus cars driven by officers and councillors in the course of their work (250 double decker buses)
- 15,000 tonnes of emissions from the manufacture of the good and supplies we buy (1,250 double decker buses).

This is still an incomplete picture and we will increase our understanding as our work develops.

We've made a start...but have a lot more to do

The Council are already taking steps to reduce our carbon emissions. This infographic shows some of the work that is already underway in Monmouthshire⁷.

TAKING ACTION ON CARBON WE'VE MADE A START...



19.3%

of the electricity we use has come from our own renewables including our solar farm



99.5%

of the energy the council buys comes from renewable sources

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64% of household waste is recycled

Carbon emissions from buildings and streetlights has gone down by **28%** over the last 5 years



We are working with Riversimple to pilot 20 hydrogen powered cars in Abergavenny



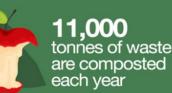
Our pension fund is reducing the amount it invests in fossil fuels



Our renewable energy generation brings in over £650,000 of income every year



2 million square metres of grassland managed in a sustainable way to encourage pollinators



...BUT WE HAVE A LOT MORE TO DO



Our Objectives at a Glance

Our action plan covers ten broad objectives that will deliver a net reduction in carbon emissions by 2030. Each of these objectives contains actions for the local authority which will reduce the council's own emissions, as well as actions that will reduce county wide carbon emissions which will need to be taken forward in partnership with the community, plus steps that everyone can do.

The action plan contained as an appendix to the strategy is not the finished article. It will be updated and reported on annually, but the actions will be continuous, as we look globally for examples of leading edge practice that can help us accelerate our progress. It contains an initial and high level of assessment of impact, cost and feasibility. Low cost actions are those below £5,000, medium are those between £5,000 and £50,000 and high cost are those above £50,000. Our priority will be to put our energy and investment into those that offer the most advantageous balance of carbon reduction and feasibility. We also need to ensure some early actions to get the maximum cumulative benefit over the next twelve years.

Energy and Buildings	Renewable Energy
Reduce the amount of energy that is used for	Speed up the move from fossil fuels to
buildings and street lighting	renewable energy
Green Spaces	What we Buy
Create and manage green spaces to absorb	Reduce carbon by thinking carefully about
carbon & provide resilience to climate change	when and what we buy and the whole life costs
Waste	Active Travel
Reduce waste by encouraging people to	Encourage and make it easier for people to
reduce, re-use and recycle more	walk and cycle rather than drive
Greener Transport	Public Transport
Reduce the impact of vehicles and encourage	Encourage people to use public transport
the use of electric and hydrogen vehicles	rather than cars
Education and involvement	Climate Adaptation
Help people understand climate change and	Preparing and adapting for the impact of
what they can do to make a difference	climate change.

Playing your part

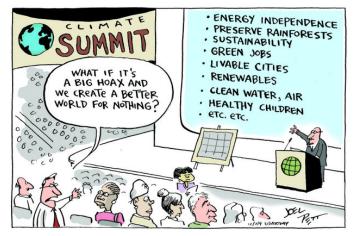
The Climate Emergency Action Plan cannot be delivered by the Council alone. We need other partners to join us in helping to reduce carbon emissions across the county. To that end, we will be working with Public Service Board partners over coming months.

We hugely value the enthusiasm, energy and expertise of the residents of Monmouthshire who have such a lot to contribute, and we plan to collaborate with our communities and other partners to work together on our action plan. This process began at the end of July 2019 with a Community Climate Champions workshop to begin to identify where they can help us deliver.

There are things that every resident, visitor or worker in Monmouthshire can do to play their part in reducing carbon emissions and helping to slow down climate change. We are all part of the problem, but can all be part of the solution too.

Climate Adaptation

Even if we were to stop all carbon emissions today, we will still have to face the impacts of climate change that are already happening. Over the next few decades we are facing some level of climate change regardless of any action to reduce our emissions now. The 2012 Climate Change Risk Assessment for Wales forecasts hotter, drier summers, warmer, wetter winters and more extreme weather events.



There are lots of things that the council is

doing to make sure that we are prepared for the impacts of climate change. In recent years, council services have thought about what the potential risks to their services are, in order to start thinking about how to adapt to these risks. The Local Development Plan has a key role to play in making sure that our communities are sustainable and resilient to the impacts of climate change.

With an increase in winter rainfall and rising sea levels, flooding is likely to increase, and this will be a particular concern in parts of Monmouthshire. Much of the work to co-ordinate emergency responses is organised through the Gwent Local Resilience Forum (LRF). We will continue to work with partners on the LRF to make sure that we are prepared for severe weather events.

If you live somewhere prone to flooding, make sure you know what to do. Find out more at https://www.monmouthshire.gov.uk/services/planning-for-emergencies/flooding/

Keeping tabs on how we are doing

It is important that we know whether the actions we will be taking to reduce climate change are making a difference to our emissions. We can measure how much carbon some of the actions will save. However, we will not be able to measure carbon savings from some of the actions, but we can at least make sure that we are doing what we have said we will do.

We will be starting a member led working group, to be chaired by the cabinet member (with community and officers) which will meet quarterly. Updates on progress against the actions will be collated every three months and reported to the working group to make sure that we are making good progress.

Our Commitment to Action

Addressing climate change will require collaboration and the commitment of many people. We are determined to play our part and the actions that Monmouthshire County Council is committed to include:

- We have built a solar farm which contributes towards the £650,000 worth of renewable energy to the national grid each year, and will invest in more renewable schemes when the national grid has enough capacity
- We have called for our pension fund to divest its fossil fuel investments and have seen the proportion of the fund invested in such firms decline from 9.10% to 6.95% since 2018;
- Develop an investment programme to help our services transition to a low carbon future
- Transition the council's transport fleet to hybrid, electric and hydrogen vehicles as these become available
- Pilot the use of locally designed and built hydrogen powered cars;
- Trial digital solutions for next generation transport schemes that make it easier for people to travel by making better use of existing transport capacity;
- Install a network of charging points for electric vehicles.
- Recruit a member of staff to develop, promote and secure funding for active travel schemes to reduce car journeys while increasing walking and cycling
- Install photovoltaic canopies at council owned car parks to power electric vehicle charge points with renewable energy
- Plant 10,000 new trees by 2022
- Make all of our buildings water refill stations and eliminate single use plastics from all council-run premises
- Promote Monmouthshire as a test-bed for companies looking to trial low carbon technologies in a rural setting

Appendix A

Climate Emergency Action Plan



Reducing energy use

Reducing the amount of energy that is used for buildings and street lighting

	CO2	Cost to	Feasibility
Action to reduce MCC emissions	reduction	Taxpayer	
New council buildings will operate with net zero carbon			
emissions by 2025 or use carbon offsetting where this cannot			
be achieved	Low	High	Medium
Implement energy efficiency improvements across the existing			
council estate by 2022	Medium	High	Medium
Reduce CO2 emissions from our energy supply	Low	High	Easier
All remaining street lighting will be converted to LED bulbs	Low	Medium	Easier
All bulbs within council owned buildings will be LED	Low	Medium	Easier
	CO2	Cost to	
Action to reduce County emissions	reduction	Taxpayer	Feasibility
Use planning policy to insist on higher energy standards for			
new buildings	Medium	Low	Harder
Reduce carbon emissions across all public service buildings in			
in the county in partnership with the Public Service Board	Medium	Low	Easier
Promote minimum energy standards in private owned			
accommodation	Low	Low	Medium

What can I do to play my part?

Make sure you have got draft proofing and loft and cavity wall insulation in your home – save money and energy. <u>https://www.energysavingtrust.org.uk/home-insulation</u>

Simple things like switching off the lights, not leaving things on standby and only boiling the water you really need in the kettle can really make a difference. <u>https://www.energysavingtrust.org.uk/home-energy-efficiency</u>

Understand how your heating controls work and using thermostats properly can save energy.

If you use a dishwasher, make sure you only use it when full.

Make sure your washing machine in full and dry clothes on a line rather than tumble dry if you can.



Using renewable energy Speed up the move from fossil fuels to renewable energy

	CO2	Cost to	Feasibility		
Action to reduce MCC emissions	reduction	Taxpayer			
Build and operate two new solar farms – subject to national grid capacity	High	High	Medium		
Develop proposals for a district heating scheme	High	High	Medium		
Develop a Whole System Smart Energy Plan as part of Cardiff Capital Region Approach	High	High	Harder		
Install photovoltaic canopies at council owned car parks to power electric vehicle charge points with renewable energy	Medium	High	Medium		
Action to reduce County emissions	CO2 reduction	Cost to Taxpayer	Feasibility		
Require renewable energy on private sector developments	Medium	Low	Harder		
Identify areas for renewable generation in the new Local Development Plan	Medium	Low	Medium		
What can I do to play my part?					
Switch your energy supplier to a renewable energy contract.					
https://www.moneysupermarket.com/gas-and-electricity/green-energy-tariffs/					
Find out whether you could install solar panels or another renewable energy in your home.					
https://www.energysavingtrust.org.uk/renewable-energy					
Consider what you want your sayings or pensions to be invested in					

Consider what you want your savings or pensions to be invested in. https://www.finder.com/ca/ethical-savings-accounts



Managing green spaces

To reduce energy use, to absorb carbon and be resilient

	CO2	Cost to	Feasibility
Action to reduce MCC emissions	reduction	taxpayer	
Eliminate the use of peat based compost by our grounds			
maintenance teams	Low	Low	Easier
Expand pollinator friendly management work and reduce grass			
cutting frequency/extent where appropriate and safe	Low	Low	Easier
Generate renewable energy from grass cuttings through anaerobic digestion	Low	Low	Medium
Plant 10,000 new trees by 2022	Low	Medium	Medium
Use our county farms as exemplars for sustainable agriculture.	Low	Medium	Medium
Use low carbon building technologies like green walls or roofs	Low	Medium	Medium
	CO2	Cost to	
Action to reduce County emissions	reduction	taxpayer	Feasibility
Promote sustainable land management and agricultural practices,			
including nutrient/soil management and natural flood management	High	High	Harder
Maintain & enhance biodiversity & make ecosystems more resilient	Medium	Medium	Medium
Plant more trees and increase area of woodland, improve and			
increase woodland management and retain existing woodland	Medium	Medium	Medium
Secure more green infrastructure through development	Low	Low	Easier
Promote and support local food growing	Low	Medium	Medium
Reduce food miles by work with local famers to market local food	Low	Low	Easier
Ensure permeable materials and water storage is incorporated into			
new car parks	Low	High	Medium
What can I do to play my part?			

Leave part of your garden wild, make habitats for wildlife and plant trees to absorb carbon dioxide. https://www.wildlifetrusts.org/actions

Join a "Friends of" group to get involved in sustainable green space management, or find out about local groups who are doing community gardening and growing. <u>https://www.farmgarden.org.uk/</u>

Try and reduce your food miles by buying food which is locally grown where possible and in season.

Think about where meat you buy comes from and have a varied diet with plenty of fruit and vegetables Get involved in community allotments or establish a new allotment and have a go and growing your own fruit and veg .https://www.theallotmentgarden.co.uk/Easier-grow/



What we buy

Reducing carbon by thinking carefully about when and what we buy and whole life costs

	602	Castita	E a a thailte a
	CO2	Cost to	Feasibility
Action to reduce MCC emissions	reduction	taxpayer	
Eliminate single use plastics within the council	Low	Low	Easier
Phase out fossil fuel investments from our pension fund	High	High	Harder
All tender document will contain criteria to criteria address climate			
emergency commitments	Low	Low	Medium
Incorporate climate and decarbonisation into strategic			
procurement collaborations	Low	Low	Medium
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What can I do to play my part?			
Think about how much you buy and whether you really need it.			

When you are buying food think local, in season, reduced and recyclable packaging.

Support your local charity shop and buy second hand, or use schemes such as Freecycle https://www.freecycle.org/

Consider buying "experiences" for people as gifts, or charity gifts that support sustainable projects, rather than buy gifts that aren't wanted or needed. <u>https://www.oxfam.org.uk/shop/oxfam-unwrapped</u>



Reducing waste By encouraging people to reduce, re-use and recycle more

	-		-
	CO2	Cost to	Feasibility
Action to reduce MCC emissions	reduction	taxpayer	
Reduce waste and increase recycling in all public spaces including			
retail centres	Low	Medium	Medium
Reduce food waste in schools	Low	Medium	Harder
	CO2	Cost to	
Action to reduce County emissions	reduction	taxpayer	Feasibility
Make all of our buildings water refill stations	Low	Low	Easier
Support, promote and expand the Repair Cafes and Upcycle			
movement	Low	Low	Easier
Roll out re-use shops at Household Waste sites, and use revenue to			
fund tree planting	Low	Medium	Medium
Increase 'reduce, re-use and recycling' across the county	Medium	Medium	Medium
Build a new high quality recycling facility in central Monmouthshire	Medium	High	Medium
Require all households to recycle	Low	Medium	Harder

What can I do to play my part?

Find out about and use all the different types of recycling that Monmouthshire does. https://www.monmouthshire.gov.uk/recycling-and-waste/

Get recipes and tips for using food and reducing food waste. <u>https://lovefoodhatewaste.com/</u> Use refillable water bottles, and reusable containers for your lunch. <u>https://refill.org.uk/</u>

Try and cut down on single use plastics. <u>https://www.sas.org.uk/plastic-free-communities/</u>

Look after your clothes and don't buy disposable fashion. https://www.loveyourclothes.org.uk/

Donate unwanted clothes, bric-a-brac, books, furniture etc. to your local charity shop to reduce landfill and help raise money.



Walking and cycling

Encouraging and making it easier for people to walk and cycle rather than drive

	CO2	Cost to	Feasibility
Action to reduce MCC emissions	reduction	taxpayer	
Improve and expand our cycle and footpath network.	Medium	High	Medium
Develop a bike share scheme	Low	Medium	Medium
Fit bike carriers to buses to encourage cycling	Low	Medium	Medium
Introduce cycling mileage rates for staff to incentivise active travel			
over car journeys	Low	Low	Easier
Reduce business miles travelled by staff 25% by 2023 through use			
of technology	Medium	Medium	Medium
	CO2	Cost to	
Action to reduce County emissions	reduction	taxpayer	Feasibility
Develop e-bike and cycle hire schemes beginning in town centres	Low	Medium	Medium
Develop schemes that will increase walking and cycling to school	Medium	Medium	Medium
Introduce no idling near schools, and other appropriate locations	Low	Low	Easier
Maximise opportunities for active travel, ensuring routes are safe			
and convenient	Medium	Low	Medium

What can I do to play my part?

Try and walk for short journeys, and reduce carbon while getting fit at the same time!

Find out about local cycle routes and cycling groups and get on your bike.

https://www.sustrans.org.uk/national-cycle-network/

Team up with parents and your local school to develop a walking bus to walk your little ones to school. Get involved with local public rights of way volunteering opportunities. <u>https://volunteer.monmouthshire.gov.uk/</u>

Ask your employer if they can provide showers and lockers so that you can cycle to work.



Greener vehicles

Reducing the impact of vehicle use and encouraging use of electric and hydrogen vehicles

	CO2	Cost to	Feasibility
Action to reduce MCC emissions	reduction	taxpayer	
Introduce a green travel plan for staff and councillor travel	Low	Low	Easier
Increase the mileage rates payable for staff who use electric			
vehicles relative to petrol and diesel cars	Low	Low	Easier
Install EV charging points at all larger council buildings	Low	High	Medium
Transition the council's transport fleet to hybrid, electric and			
hydrogen vehicles as these become available	Medium	Medium	Medium
	CO2	Cost to	
Action to reduce County emissions	reduction	taxpayer	Feasibility
Provide free car parking in MCC owned car parks for electric and			
hydrogen vehicles until 2025	Low	High	Medium
Encourage the use of electric or hybrid taxis	Low	Low	Harder
Use parking and speed enforcement to prevent traffic congestion			
and minimise air pollution	Low	Low	Harder
Launch the Riversimple hydrogen car pilot in Abergavenny	Low	High	Medium
Develop proposals for EV charging in street lights and new housing			
developments	Medium	High	Medium
	·		

What can I do to play my part?

Try and car share when you can, to save fuel and money. There are schemes to help. <u>https://liftshare.com/uk</u>

If you are thinking of replacing your vehicle, think about whether an electric car would work for you. There are grants which can help. <u>https://www.energysavingtrust.org.uk/transport/electric-cars-and-vehicles/electric-vehicles</u>



Public transport

Encouraging people to use public transport rather than cars

CO2	Cost to	Feasibility
reduction	taxpayer	
Low	High	Medium
Medium	High	Harder
CO2	Cost to	
reduction	taxpayer	Feasibility
High	High	Harder
Low	Medium	Medium
Medium	High	Medium
	Low Medium CO2 reduction High Low	Low High Medium High CO2 Cost to reduction taxpayer High High

What can I do to play my part?

Find out about public transport options that could work for you. https://www.traveline.cymru/If you are 16 to 21 you can get bus travel discounts. https://mytravelpass.gov.wales/en/If you are 16 to 25 you can apply for a young persons railcard. https://www.16-25railcard.co.uk/Concessionary bus passes are available from Transport for Wales. https://tfw.gov.wales/



Education and involvement

Helping people understand climate change and what they can do to make a difference

	CO2	Cost to	Feasibility
Action to reduce MCC emissions	reduction	taxpayer	
Make energy data available to schools and encourage pupils to get			
involved in managing energy consumption	Low	Low	Easier
Introduce carbon literacy training for all council staff	Low	Low	Medium
Change the council's default internet search engine to Ecosia which			
plants a tree for every search made	Low	Low	Easier
	CO2	Cost to	
Action to reduce County emissions	reduction	taxpayer	Feasibility
Work with community groups to develop an Internet of Things			
sensor network to inform decisions and educate local communities	Medium	Medium	Harder
Start local growing and cooking schemes in schools	Low	Medium	Easier
Use the One Planet Centre as a focus for climate change education	Low	Low	Easier

What can I do to play my part?

Get involved with your school's Eco Committee, or if your school isn't an Eco School, find out more and ask them if they would consider it. <u>https://www.keepwalestidy.cymru/pages/category/eco-schools</u> Does your workplace have recycling or other environmental issues in place? Why not try and start something.

Get involved with one of the many voluntary groups in Monmouthshire doing great work on climate change. <u>https://www.transitionchepstow.org.uk/</u> <u>https://transitionmonmouth.org/</u> http://abergavennytransition.org/ https://www.facebook.com/AbergavennyExtinctionRebellion/

References

¹ <u>https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-</u> <u>5c-approved-by-governments/</u>

² <u>https://democracy.monmouthshire.gov.uk/ieListDocuments.aspx?Cld=143&MId=3758</u>

³ Doughnut Economics (2017); Raworth, Kate

⁴ UK local authority and regional carbon dioxide emissions national statistics: 2005-2016, full dataset and methodology available at <u>https://www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics</u>

⁵ LULUCF Net Emissions (land use, land use change and forestry) total. Ibid

⁶ 2016 data for Monmouthshire. Ibid

⁷ Council Data for 2018/19