Blaenau Gwent County Borough Council

Net Zero Report 24/25

Decarbonisation Plan 2020 to 2030

Cyngor Bwrdeistref Sirol
Blaenau Gwent
County Borough Council

Blaenau Gwent County Borough Council Net Zero Report 2024/25

If you have any queries or questions in relation to this report, please contact the BGCBC Policy and Partnerships Team at the below email address:

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Mae'r ddogfen hon ar goel yn Gymraeg

This document is available in Welsh.

Contents

1. Our Approach

Our approach is based on Welsh Government's two Net Zero targets: Net Zero 2030 for the Welsh Public Sector (organisational emissions) and Net Zero 2050 for all of Wales (territorial emissions). Our organisational emissions are the carbon emissions produced by delivering our services, while Blaenau Gwent's territorial emissions include all the carbon emissions released within the borough, from homes, transport, businesses etc. We have made a clear separation between these two Net Zero goals because the two types of emissions often require quite different types of action, and we have greater direct control over our organisational emissions. This report provides an overview of our organisational carbon footprint for 2024/25 and a summary of the actions we are taking towards our Net Zero 2030 and Net Zero 2050 ambitions.

2. Summary of Activity

Our journey towards our Net Zero targets is overseen by our Climate Group, the core membership of which includes elected members including Cabinet Members, the relevant Scrutiny Chair and Climate Champion, members of our senior leadership team and a trade union representative. The group meets every six weeks with an alternating focus on Net Zero 2030 at one meeting and Net Zero 2050 at the next.

Our Net Zero Report this year is shorter than previous years because we will be carrying out a Mid-Point Review of our Decarbonisation Plan this year. The review will be divided into two phases. The first phase is data based and will have two main elements breaking down in detail: (i) our progress so far and (ii) what still needs to be done to reach **Net Zero 2030**, i.e. breaking down our largest remaining carbon emissions sources. The second phase is forward looking and will develop more detailed projections of carbon reductions, costs and timescales. With the aim of better understanding our full path to Net Zero and providing a realistic estimate of how much progress we will be able to make by 2030 given the available resources.

This year's annual report contains all the details of our carbon footprint for Net Zero 2030 as in previous years and this year also includes breakdowns of carbon footprint by building for the first time. However, the usual narrative detail about our progress across our eight Net Zero 2030 transitions, including our five key actions are not included. As these will be covered in greater detail as part of our Decarbonisation Plan Mid-Point Review, which will be made publicly available in due course.

In January and February 2025, the Blaenau Gwent Citizens' Forum on the Future of Travel took place, with funding through Innovate UK's Fast Followers Project. The forum built on the work of the 2021 Climate Assembly, which identified transport as one of the four key themes of our **Net Zero 2050** Framework. The Citizens' Forum brought together 19 randomly selected Blaenau Gwent residents, who were representative of the borough, to discuss the question 'How can Blaenau Gwent come together to make local travel fairer, greener and better for everyone?' The forum produced ten recommendations for what the council and its partners could realistically do over the next five years to improve travel in the borough, as well as a set of fairness principles to inform how these recommendations should be implemented. These recommendations have been presented by forum members to elected members of the council and the Blaenau Gwent Local Well-being Partnership. We will be publishing our full response to these recommendations in January 2026.

3. Organisational Net Zero 2030

Our Decarbonisation Plan was adopted in September 2020 at the same time we declared a Climate Emergency. The plan addresses our organisational emissions with the aim of making our full contribution to the ambition of a Net Zero Public Sector in Wales by 2030.

We have adopted a data driven approach, based on identifying from our carbon footprint, eight transitions we have to undertake to reach Net Zero. Each of these transitions represents a coherent area of action with its own distinct low carbon technologies, business models and infrastructure. Each of these transitions has its own detailed actions to deliver it. Our approach is based on mainstreaming decarbonisation into our operations, rather than establishing separate decarbonisation projects and budgets. With a cross-organisation climate group providing corporate overview. Overview of our Transitions:

1. **Transport.** Travel by our staff in corporate or their own vehicles, includes fleet, commuting and staff travel within work.
2. **Nature Based Solutions.** Absorption of carbon on land we own and manage, largely associated with woodland, urban trees and peatland.
3. **Procurement: Goods.** Which covers what we purchase as an organisation and includes key items such as clothing, food, IT, machinery, equipment and furniture.
4. **Procurement: Services.** Which covers the services we procure to deliver our functions such as schools and social services. This also includes investments such as pension schemes.
5. **Procurement: Works.** Which includes all construction and maintenance of our buildings and infrastructure.
6. **Electricity.** Covers the electricity we purchase to run all our services. It includes key things such as street lighting, running our corporate buildings and schools. It also includes our use of renewable technologies.
7. **Heat.** Includes our heating (and cooling) of our buildings.
8. **Waste.** Covers the carbon impacts of our treatment of municipal waste, whether recycling, landfill or waste to power.

Blaenau Gwent County Borough Council: Transitions Summary 2019/20

1 Transport Direct

tCO₂e **5,574**

Employee Commuting	2,181
Vehicle Expenditure	1,846
Fleet Diesel	1.189
Employee Business Travel	334

10%

2 Nature Based Solutions

tCO₂e **-1,486**

Trees	-2,350
Grasslands	-55
Built Environment	919

-3%

3 Procurement: Goods

tCO₂e **5,567**

IT & Office Machinery	1,883
Equipment & Furniture	1,327
Food and Drink	1,318

10%

4 Procurement: Services

tCO₂e **28,640**

Social Care & Health	9,646
Education	9,466
Pensions / Investments	3,837

53%

5 Procurement: Works

tCO₂e **5,521**

Construction & Maintenance	5,521

10%

6 Electricity

tCO₂e **4,119**

Street Lighting	1,104
Ebbw Fawr Learning	359
Civic Centre	113
Cwm Cracken Caravan Park	98

8%

7 Heat

tCO₂e **5,757**

The Energy Centre	1,522
Abertillery Comprehensive	279
Ebbw Fawr Learning	194
Tredegar Comprehensive	180
Cwrt Mytton	176

11%

8 Waste

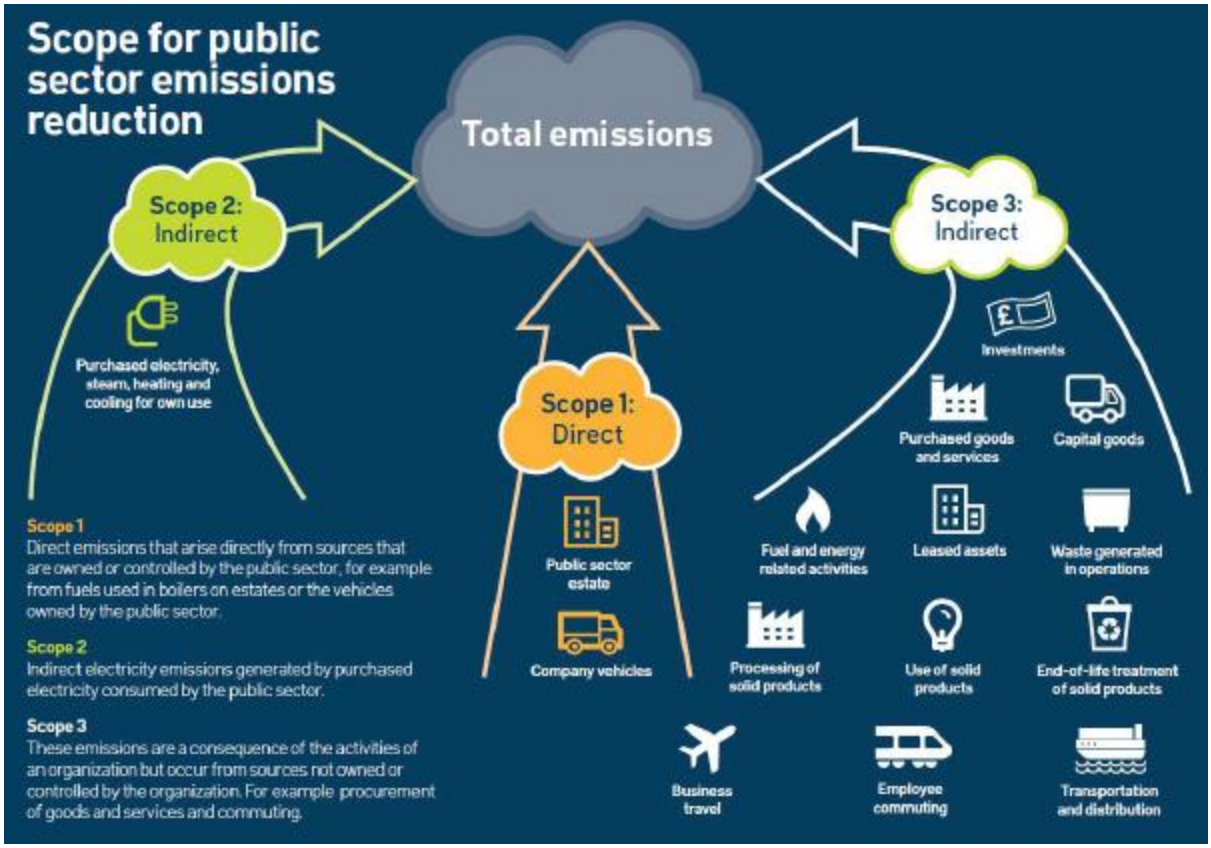
tCO₂e **-8,216**

Recycling / Composted	-11,828
Waste to Energy	3,611
Landfill	0.4

-15%

4. Our Carbon Footprint

Our carbon footprint is divided into three scopes (see diagram below). Our footprint includes all emissions from assets, such as buildings and vehicles, that we have day-to day operational control of, whether we own or lease them (Scope 1 and 2 emissions) and emissions which are the result of our procurement and other organisations delivering services on our behalf (Scope 3 emissions). We calculated our baseline carbon footprint for 2019/20.



The underlying method for calculating our carbon emissions is quite simple. Carbon emissions are the amount of an activity that we carry out (e.g. litres of diesel used by our fleet or the amount spent on construction projects) multiplied by the nationally calculated average carbon intensity of a unit of that activity (e.g. the carbon emissions from a litre of diesel or pound of spend on construction projects):

carbon intensity of activity x amount of activity = total emissions
(e.g. CO_2 per litre x litres of fuel used = emissions)

Our carbon footprint emissions can be divided into two types, which differ significantly both in the level of control we have on achieving carbon reductions and also how they can be monitored. The first type, ***direct emissions*** are either directly released through our operations (e.g. fuel burnt in our fleet) or through our consumption of electricity (e.g. street lighting), these emissions largely correspond to scopes 1 & 2. Due to the direct relationship between our activities and carbon being released, we have relatively high levels of control

on reaching Net Zero for these emissions and therefore we can directly measure our progress in terms of carbon emissions.

The second type, ***spend based emissions*** are related to our procurement of products and services, these include most scope 3 emissions, we have less direct control over these emissions. Spend based emissions calculations can give a reasonable estimate of the size of these activities' contribution to our overall carbon footprint. However, because they are calculated based on our financial spend and national average carbon intensity factors, they cannot accurately detect changes in our performance from year to year, so they are not suitable for monitoring our performance over time. As a result, we will not update our spend-based emissions figures on an annual basis.

Two of our transitions have negative carbon emissions figures. The nature based solutions transition is about the carbon impact of the land we own. This figure is based on the net annual change in the carbon stored and released from the land we own and/or manage. These land-based figures are true ***negative net emissions*** that represent removal of carbon from the atmosphere.

The negative figure for the waste transition represents ***avoided emissions***, the amount of carbon emissions that are avoided by others producing products using recycled waste rather than new materials. However, our footprint only includes the emissions from the recycling process. The avoided emissions from municipal waste are not part of our carbon footprint, as unlike the land-based figures they do not represent a removal of carbon from atmosphere .

We have also reported the amount of renewable electricity we have generated from solar; these figures are not directly part of our carbon footprint. As the carbon savings from the electricity we use ourselves is already captured in our footprint through the reduced amount of grid electricity we need to use, while the electricity we export to the grid contributes to the lowering of the carbon intensity of the national grid as a whole.

2024/25 Carbon Footprint

	tonnes CO_2e/year 2024/25	2023/24	2022/23
Scope 1 - Direct Emissions			
Natural Gas Heating	2,918	3,335	3,512
Natural Gas Heating Aneurin Leisure	927	953	967
Biomass Heating	54	44	46
Diesel Fleet	848	654	782
Petrol Fleet	9	10	10
Liquid Natural Gas Fleet	0	23	28
Scope 1 Total	**4,756**	**5,019**	**5,345**
Scope 2 - Electricity Indirect Emissions			
Metered - Buildings	1,264	1,202	1,171
Metered - Buildings Aneurin Leisure	*317*	*353*	*343*
Unmetered - Street Lighting	639	688	642
Metered - Electric Fleet Vehicle	4	2	0.2
Scope 2 Total	**2,221**	**2,243**	**2,156**
Scope 3 - Other Indirect Emissions			
Purchased Goods and Services	50,292	39,701	33,548
Extraction, Production & Transportation of Fuel & Energy Used	1,460	1,510	1,620
Extraction, Production & Transportation of Fuel & Energy Used Aneurin Leisure	*251*	*284*	*294*
Water	22	29	36
Water Aneurin Leisure	12	11	*13*
Business Travel	276	271	281
Business Travel Aneurin Leisure	10	9	*8*
Staff Commute	2,075	2,083	2,067
Homeworking Energy Use	296	297	327
Organisational Waste and Downstream Transport	3	186	205
Scope 3 Total	**54,697**	**44,389**	**38,400**
Sequestration			
Forest land	-2,350	-2,350	-2,350
Grass land	-55	-55	-55
Settlements	919	919	919
Sequestration Total	**-1,486**	**-1,486**	**-1,486**
Carbon Footprint Total	**60,188**	**50,164**	**44,415**

Indicates figures not recalculated

Indicates new data

Indicates figures less accurate as fleet vehicles not able to refuel at Depot for most of year

Indicates emissions are part of our tracked non-spend based emissions (see below for details)

Indicates revised methodology to eliminate double counting

	tonnes CO_2e/year		
Scope 1 - Direct Emissions	**2021/22**	**2020/21**	**2019/20**
Natural Gas Heating	3,483	3,725	3,942
Natural Gas Heating Aneurin Leisure	1,076	798	1,152
Biomass Heating	75	67	60
Diesel Fleet	933	905	911
Petrol Fleet	10	9	18
Liquid Natural Gas Fleet	32	31	35
Scope 1 Total	**5,609**	**5,535**	**6,118**
Scope 2 - Electricity Indirect Emissions			
Metered - Buildings	1,265	1,272	1,792
Metered - Buildings Aneurin Leisure	*374*	*279*	*572*
Unmetered - Street Lighting	700	870	968
Metered - Electric Fleet Vehicle			
Scope 2 Total	**2,339**	**2,421**	**3,332**
Scope 3 - Other Indirect Emissions			
Purchased Goods and Services	21,753	22,723	23,069
Extraction, Production & Transportation of Fuel & Energy Used	1,548	1,727	2,104
Extraction, Production & Transportation of Fuel & Energy Used Aneurin Leisure	*323*	*170*	*288*
Water	32	62	68
Water Aneurin Leisure	*9*	*17*	*33*
Business Travel	198	118	278
Business Travel Aneurin Leisure	*4*	*2*	*11*
Staff Commute	2,074	1,557	2,335
Homeworking Energy Use	352		
Organisational Waste and Downstream Transport	612	209	216
Scope 3 Total	**26,905**	**26,585**	**28,402**
Sequestration			
Forest land	-2,350	-2,350	-2,350
Grass land	-55	-55	-55
Settlements	919	919	919
Sequestration Total	**-1,486**	**-1,486**	**-1,486**
Carbon Footprint Total	**33,367**	**33,055**	**36,366**

Indicates figures not recalculated

Indicates new data

Indicates emissions are part of our tracked non-spend based emissions (see below for details)

Carbon Footprint Trends

Procurement emissions figures for purchased goods and services have risen very significantly. In this context it is worth noting again that spend based procurement emissions are not suitable for tracking changes in performance from year to year. This year's net rise is entirely explained by very large increases of over 80% in the emissions factors for education and non-domestic social care spending, two of our three largest categories of spending. Looking at procurement spending on goods rather than services, the end of the spending on the Ebbw Vale rail line, which significantly increased our spend based emissions for the last two years, was largely counterbalanced by spending on several significant construction projects (and related IT equipment) including the HiVE, two major school construction projects and three £1million plus ReFit projects.

Changes in our non-spend based carbon emissions which do capture annual changes in performance (these categories are highlighted in green in the carbon footprint table on the previous page and exclude the variations from procurement figures) are shown in the table below. Overall, there has been a 5% fall in our non-spend based carbon emissions and a cumulative 23% fall over the five years since our 2019/20 baseline (see table below). The main cause of our reduction this year is a 10% fall in the amount of gas consumed, which accounts for 443 tonnes CO_2e out of a total net reduction of 568 tonnes CO_2e. The picture for electricity consumption was much more mixed. Overall, it was down 1%, but this included two significant new sources of electricity consumption, the HiVE (which will be part of Coleg Gwent's footprint in the future) and Beechwood House, Silent Valley (not previously part of our footprint). On the other hand, other properties, notably Anvil Court and Eugene Cross Park, left our footprint and we identified a set of industrial units that should not have been included in our footprint previously. Finally, our waste emissions were largely eliminated as Welsh Government ruled that most of these represented double counting with our reporting of our waste fleet fuel emissions.

Total Non-Spend Based Emissions

tonnes CO_2e/year	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**Change from Base Year**	**Change from Last Year**
Non-Spend Based Emissions	14,783	11,818	13,100	12,353	11,949	11,381	-23%	-5%

Electricity Emissions

	tonnes CO_2e/year							
	19/20	**20/21**	**21/22**	**22/23**	**23/24**	**24/25**	**Change From Last Year**	**Change From Base Year**
Metered - Buildings	1,792	1,272	1,265	1,171	1,202	1,264	5%	-29%
Metered - Buildings Aneurin Leisure	*572*	*279*	*374*	*343*	*353*	317	-10%	-45%
Unmetered - Street Lighting	968	870	700	642	688	639	-7%	-34%
Metered - Electric Fleet Vehicle				0.2	2	4	115%	
Electricity Total	**3,332**	**2,420**	**2,339**	**2,156**	**2,243**	**2,225**	**-1%**	**-33%**

Heating Emissions

	tonnes CO_2e/year							
	19/20	**20/21**	**21/22**	**22/23**	**23/24**	**24/25**	**Change From Last Year**	**Change From Base Year**
Natural Gas Heating	3,942	3,725	3,483	3,512	3,335	2,918	-13%	-26%
Natural Gas Heating Aneurin Leisure	*1,152*	*798*	*1,076*	967	953	927	-3%	-20%
Biomass Heating	60	67	75	46	44	54	23%	-10%
Heat Total	**5,154**	**4,590**	**4,634**	**4,554**	**4,332**	**3,898**	**-10%**	**-24%**

Transport Emissions

			tonnes CO_2e/year					
	19/20	**20/21**	**21/22**	**22/23**	**23/24**	**24/25**	**Change From Last Year**	**Change From Base Year**
Diesel Fleet	911	905	933	782	654	848	30%	-7%
Petrol Fleet	18	9	10	10	10	9	-8%	-49%
Diesel Oil Fleet	35	31	32	28	23	0	-100%	-100%
Business Travel	278	118	198	281	271	276	2%	-1%
Business Travel Aneurin Leisure	*11*	*2*	*4*	*4*	9	10	8%	-11%
Staff Commute	2,335	1,557	2,074	2,067	2,083	2,075	0%	-11%
Transport Total	**3,588**	**2,622**	**3,251**	**3,172**	**3,050**	**3,218**	**6%**	**-10%**

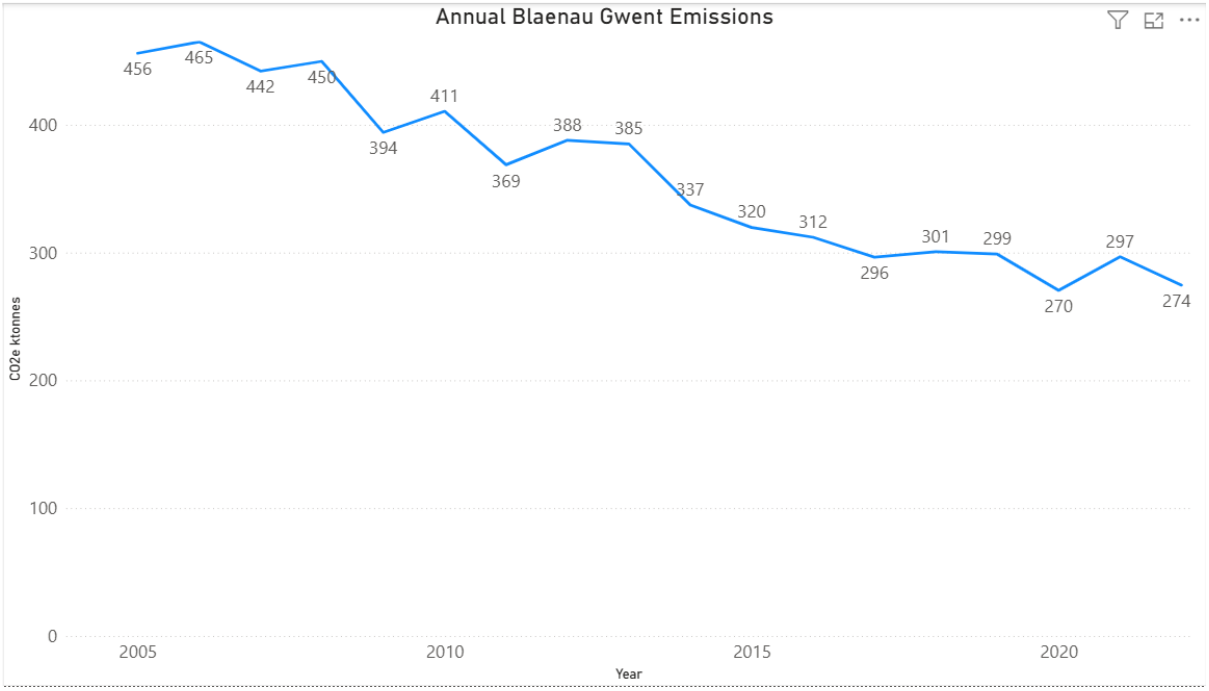
5. Territorial Net Zero 2050

Blaenau Gwent Territorial Emissions

This is our first year breaking down Blaenau Gwent's territorial emissions in detail across all sectors. We will continue to report these figures on an annual basis in future reports.

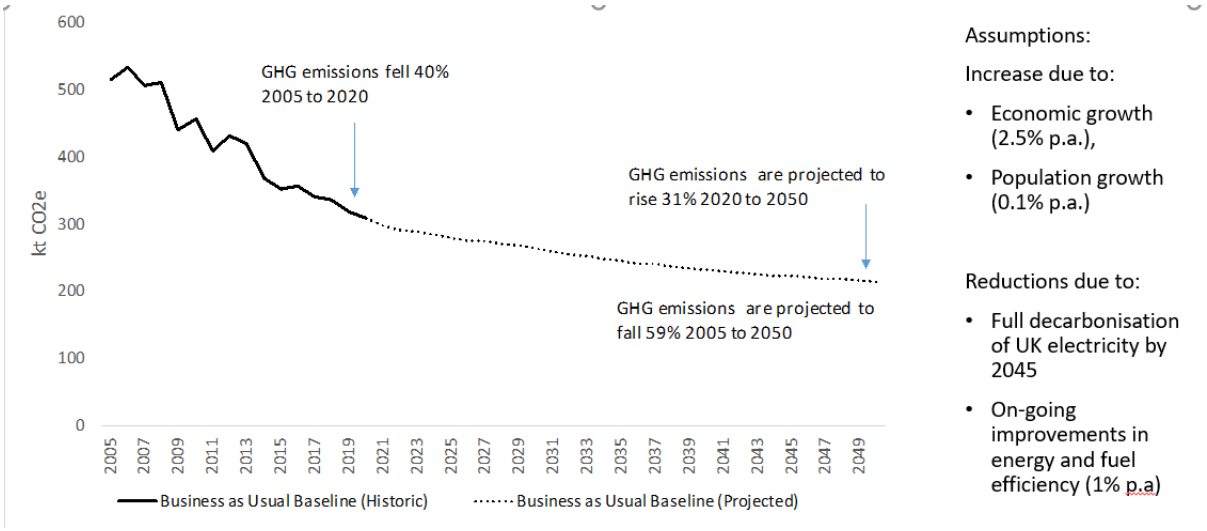
Emissions are falling but not on target

Blaenau Gwent's territorial carbon emissions have been falling consistently, reducing 40% between 2005 and the most recent figures in 2022. This fall mirrors the national trend and has been driven by two main factors, the decarbonisation of the electricity grid and widespread continuing improvements in energy efficiency.



However, these two factors will not be enough on their own to reach Net Zero. Projections from the Tyndall Centre (below) show that just continuing these current trends will fall significantly short of Net Zero without other types of action. The projections estimate that energy efficiency improvements and full decarbonisation of the electricity supply can combined only reduce Blaenau Gwent emissions by 59%. In addition, the projection assumes that continued economic and population growth would increase emissions by 31% between 2005 and 2050. The main way of eliminating these other emissions is converting forms of energy use that are currently not based on electricity (mainly heating and transport) to electricity to that they will benefit from grid decarbonisation and run on zero carbon electricity.

Projected Business as Usual Territorial Emissions for Blaenau Gwent



Emissions by Sector

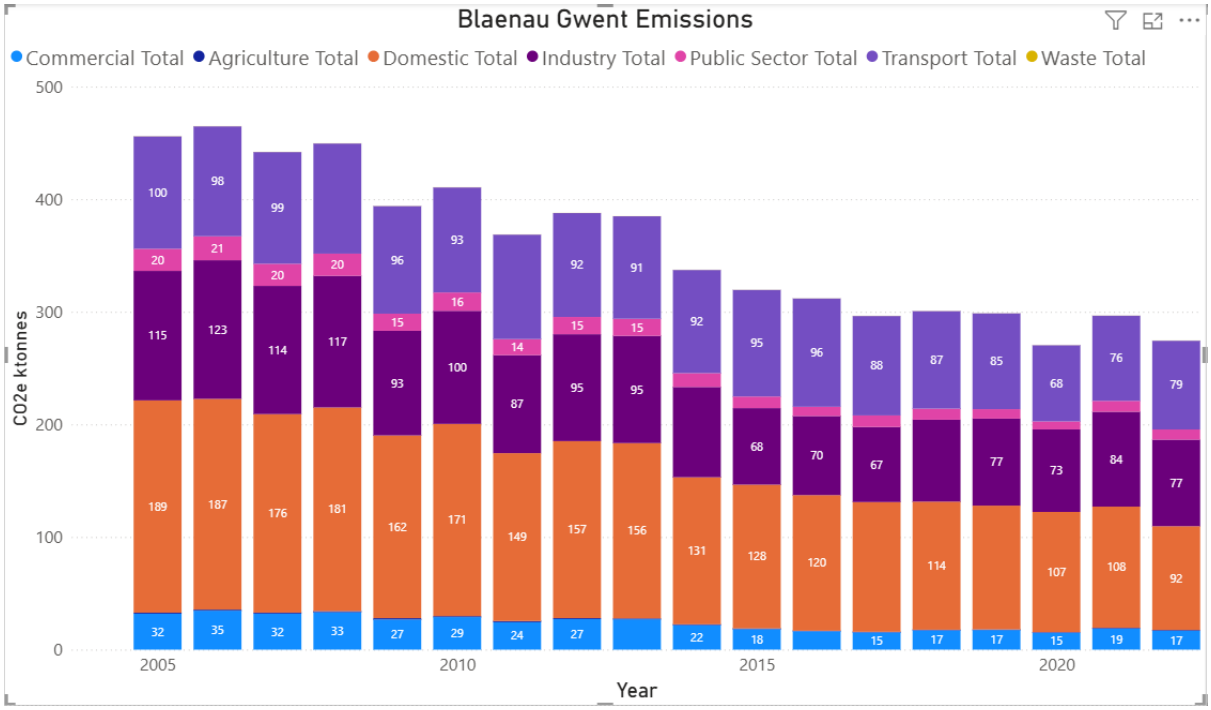
As shown in the table and charts below the three main sources of emissions in Blaenau Gwent are domestic (housing), industry and transport, each contributing around a third of total emissions. Compared to Wales as a whole, housing rather than transport is the largest source of emissions, and industrial emissions make up a greater proportion of emissions (28% to 17%).

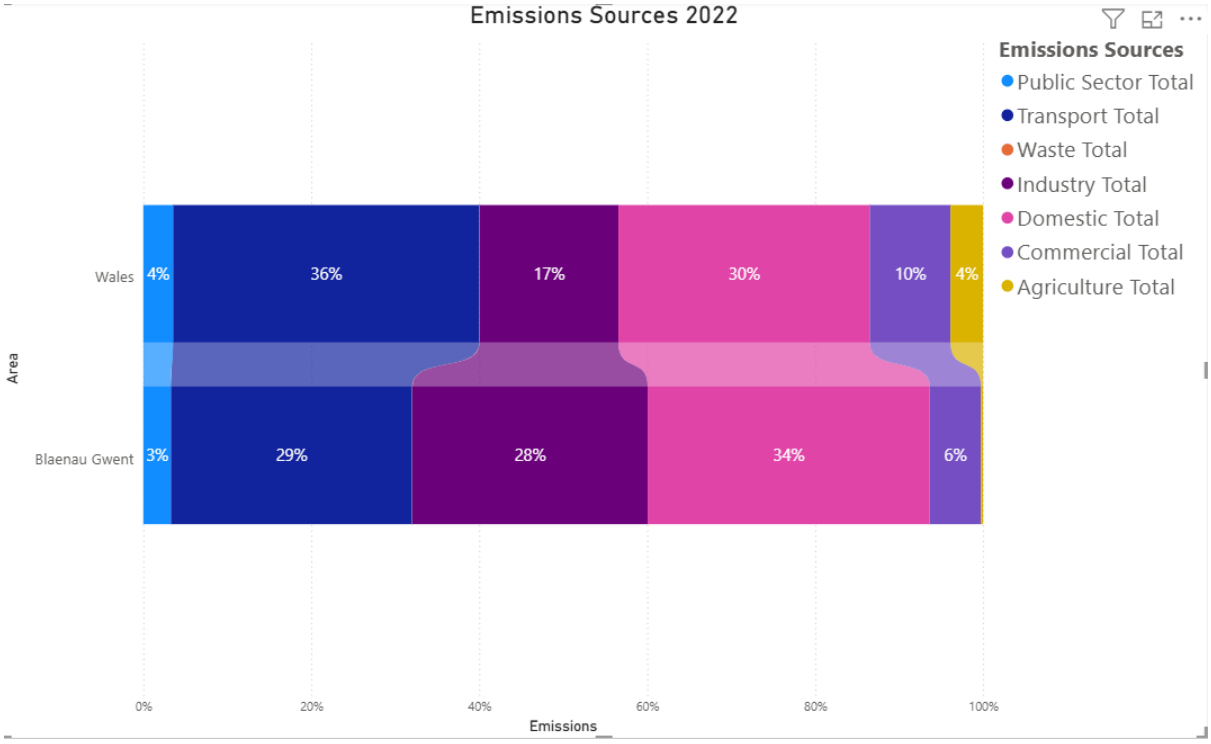
The rates of falls in emissions across different sectors in Blaenau Gwent are largely in line with the Welsh averages with two significant exceptions. The largest falls in Blaenau Gwent have been in the public sector, domestic and commercial sectors, all of which have cut their emissions around -50%. In contrast, transport emissions (-21%) have fallen the least (excluding agriculture and waste where emissions are already very low). Electricity related emissions have fallen -71% on average, and this is consistent across all sectors due to grid decarbonisation. In contrast, gas related emissions have fallen only -22% on average, with substantial savings in the domestic sector (-44%) from home energy efficiency improvements being counterbalanced by significant rises in gas emissions in from the industrial (52%) and commercial (56%) sectors. It is also worth noting that this a very different position from Wales a whole where commercial (-38%) and industrial (-39%) emissions have reduced at similar rates to the domestic and public sectors.

These figures highlight that the biggest challenges in achieving Net Zero in Blaenau Gwent are converting gas heating (just over 50% of which is domestic) and transport to using zero carbon electricity. This will require both on significant change at the national level and significant local action in Blaenau Gwent to deliver infrastructure such as charging points and heat pumps, as well as engagement with residents and businesses. These are explored in more detail in the next section on out Net Zero 2050 Framework.

Blaenau Gwent Territorial Emissions by Sector

Emission Source	2005	2022	Proportion of Total Emissions in 2022	Change	Change %
Industry Electricity	64.5	19.6	7%	-44.9	-70%
Industry Gas	30.2	45.9	17%	15.6	52%
Industry 'Other'	20.3	11.4	4%	-8.9	-44%
Industry Total	**115.0**	**76.9**	**28%**	**-38.1**	**-33%**
Commercial Electricity	25.1	7.0	3%	-18.1	-72%
Commercial Gas	5.6	8.7	3%	3.1	56%
Commercial 'Other'	1.2	1.0	0%	-0.2	-14%
Commercial Total	**31.9**	**16.7**	**6%**	**-15.2**	**-48%**
Public Sector Electricity	9.2	2.2	1%	-7.0	-76%
Public Sector Gas	7.5	5.7	2%	-1.9	-25%
Public Sector 'Other'	2.9	1.1	0%	-1.7	-60%
Public Sector Total	**19.6**	**9.0**	**3%**	**-10.6**	**-54%**
Domestic Electricity	58.2	17.4	6%	-40.9	-70%
Domestic Gas	120.3	66.9	24%	-53.4	-44%
Domestic 'Other'	10.0	7.9	3%	-2.2	-22%
Domestic Total	**188.6**	**92.2**	**34%**	**-96.4**	**-51%**
Road Transport (A roads)	50.6	40.7	15%	-9.9	-20%
Road Transport (Minor roads)	46.2	36.4	13%	-9.9	-21%
Transport 'Other'	3.0	1.8	1%	-1.2	-40%
Transport Total	**99.8**	**78.8**	**29%**	**-21.0**	**-21%**
Agriculture Electricity	0.5	0.2	0%	-0.3	-60%
Agriculture 'Other'	0.4	0.5	0%	0.1	28%
Agriculture Total	**0.9**	**0.7**	0%	**-0.2**	**-21%**
Waste 'Other'	0.1	0.1	0%	0.0	-15%
Waste Total	**0.1**	**0.1**	0%	**0.0**	**-15%**
Grand Total	**456.0**	**274.5**	**100%**	**-181.5**	**-40%**


Blaenau Gwent Emissions
Commercial Total
Agriculture Total
Domestic Total
Industry Total
Public Sector Total
Transport Total
Waste Total
CO2e ktonnes
Year
2005
2010
2015
2020


Emissions Sources 2022
Emissions Sources
Public Sector Total
Transport Total
Waste Total
Industry Total
Domestic Total
Commercial Total
Agriculture Total
Area
Wales
Blaenau Gwent
4%
36%
17%
30%
10%
4%
3%
29%
28%
34%
6%
0%
20%
40%
60%
80%
100%
Emissions

Net Zero 2050 Framework

Our Net Zero 2050 Framework was adopted in 2024 and covers the territorial emissions for Blaenau Gwent as a whole. The 2050 Framework does not attempt to cover the range of actions required reach Net Zero in the same level of detail as our 2030 Decarbonisation Plan. Reflecting that many of Blaenau Gwent's territorial emissions are outside of our direct control as a council, and the range of changes required is far wider. Rather the framework provides a high-level overview of the changes needed to achieve Net Zero for Blaenau Gwent as a whole. Providing a shared understanding of what we, partner organisations and residents need to do to continue and accelerate actions towards Net Zero 2050. We took the lead in developing this overview due to our place shaping role and democratic accountability the council provides.

What the Framework Covers

The Framework covers all territorial emissions for Blaenau Gwent, this means all carbon emitted within Blaenau Gwent (from transport, housing, businesses etc.). Net Zero 2050 relates to production based territorial emissions, these include all the carbon emissions (i) directly released in Blaenau Gwent and (ii) released to produce energy that is used in Blaenau Gwent. It does not include consumption based territorial emissions, which are the emissions associated with making products elsewhere, which are then consumed in Blaenau Gwent. Consumption based emissions vary much less between one area and another than production-based emissions, reflecting that there is much more limited scope to influence them at the local level.

The framework is structured around four themes: energy, housing, nature and transport. These themes are based on (i) public engagement, particularly the 2021 Blaenau Gwent Climate Assembly, (ii) data, identifying our major emissions sources, as well as (iii) work with our partners, particularly through the Blaenau Gwent Climate Mitigation Steering Group. It is about how Blaenau Gwent can play our part in tackling the Climate Emergency and achieving global targets for limiting global warming to well below 2^{o}c. But it is also about improving our green spaces, warm homes, affordable energy and accessible transport for all.

The framework aims to set our direction by providing a clear description of what Net Zero 2050 looks like for Blaenau Gwent and some of the key steps that we need to take to reach it. However, the scope of the changes needed to reach Net Zero 2050, which include a range of actions that are outside of local control, mean that it is not realistic or proportionate to cover all the actions required in a single document. Similarly, costing the changes required to reach Net Zero 2050, and the potential costs of not doing so, is beyond the scope of the Framework. The approach of the Framework is to describe what needs to be done under each of the four themes to achieve Net Zero in Blaenau Gwent, which is dependent on significant additional resources being available, rather than describing what can be done to maximise carbon reductions within existing resources. In this context it is worth noting that the alternative to the actions described in the Framework is not doing nothing. In the 25-year period to 2050 much of the infrastructure covered in the framework will reach the end of its useful life and need to be replaced whether it is replaced with zero carbon alternatives or not.

What Net Zero 2050 means for Blaenau Gwent

Energy

Achieving a Net Zero energy system in Blaenau Gwent will a major shift and the broad changes needed are clear. Currently there are three major energy sources used in Blaenau Gwent: gas for heating (70% of energy demand in Blaenau Gwent), petrol/diesel for transport (17%) and electricity for most other energy uses (13%). Of these three, only electricity can become a zero-carbon energy source in the future. As a result, achieving Net Zero will require the phasing out of gas and petrol/diesel and the electrification of heating and transport (see themes below for more details). Most of this increased demand for electricity will be met with renewable energy. This means that Blaenau Gwent will need increased grid capacity and more local renewable energy generation (primarily wind and solar) located near to local demand to help balance the grid and reduce costs for residents and businesses.

Housing

Welsh Government expects that Heat Pumps will be the zero-carbon technology for most homes and other buildings (whether in individual homes or as part of larger District Heating Networks). Nationally it is estimated that 90% of homes in use in 2050 have already been built now, so most heat pumps will be installed into existing houses. However, most if not all existing gas boilers will need to be replaced by 2050 and most homes will change ownership, providing opportunities for these changes to take place. In many cases installing heat pumps will require other retrofit measures (e.g. insulation) to work efficiently. Blaenau Gwent has an older, and therefore less energy efficient housing stock, with 50% of houses being pre-1930 (Welsh average 36%). These retrofit measures could have significant benefits in terms of addressing long standing issues around the energy efficiency and comfort of homes in Blaenau Gwent. While national policy will drive the transition, local action will be needed to identify areas suitable for heating networks and support development of local retrofit capacity, which could create significant local business opportunities and jobs.

Nature

While the potential carbon savings by 2050 of nature-based solutions are much smaller than the other themes, the cumulative ongoing impacts beyond 2050 are very significant. Tree planting and peatland restoration have the largest carbon absorption capacity, however, nature restoration in Blaenau Gwent needs to cover a wide range of habitats to address the Nature Emergency. The Climate Assembly also highlighted the importance of improving the local natural and built environment to the wider transition to Net Zero. Both in demonstrating commitment to, and the credibility of, the larger-scale changes needed to reach Net Zero and in improving local quality of life.

Transport

It is very likely on current trends that most, if not all, cars in Blaenau Gwent will be zero-carbon electric battery by 2050. There will still be major challenges for Blaenau Gwent in terms of ensuring that all residents have access to affordable charging, at or near to their homes. Broader changes are needed in transport planning to create a zero-carbon transport system that improves the range of convenient and affordable travel options for residents. This will need to be done in a way that fits the specific context of Blaenau Gwent (topography, climate, narrow streets) and addresses the long-standing transport challenges. These include low levels of car ownership (23% of households in Blaenau Gwent do not own a car) combined with high levels of car dependency (Blaenau Gwent has the highest proportion of people who travel to work by car in Wales, 69%) and providing public transport in area with relatively low population size and density after long-term under investment.

Citizens' Forum on the Future of Travel in Blaenau Gwent

The Citizens' Forum on the Future of Travel in Blaenau Gwent was organised by Blaenau Gwent Council and funded by Innovate UK, the UK Government's innovation agency, as part of their Net Zero Living programme. The Blaenau Gwent Local Well-being Partnership Climate Mitigation Group has served as an advisory group to the forum process.

The forum was made up of 21 Blaenau Gwent residents who were selected to be representative of the borough by sortition lottery from the 164 people who responded to a recruitment letter that was sent to 6,500 randomly selected households. The sortition process selected people to be representative in terms of demographics, concern about climate change, number of cars in household and distance of travel to services (based on the Welsh Index of Multiple Deprivation access to services index).

The Forum was asked to answer the question:

How can Blaenau Gwent come together to make local travel fairer, greener and better for everyone?

The wording of this question was informed by the following points:

- Forum organisers felt that changes to how we travel in Blaenau Gwent were both needed and inevitable.
- No single organisation can deliver all these changes, rather that organisations and individuals would need to come together to make these changes.
- The three key elements of this change: fairer, greener and better, were left open for forum members could define themselves during the process.
- It was decided to use the word travel rather than transport, to reflect the importance of changes being based on an overview of how, where and why people travel, rather than considering different forms of transport in isolation.

The forum took place over three, in-person, full day sessions in January and February 2025, and gave forum members a chance to hear from expert speakers to learn about the issues and discuss them in small groups, with facilitation from public involvement charity Involve. The main output of the forum was ten recommendations, drafted by the forum members, about how local travel can be improved. The Forum was given the brief that the focus of these recommendations should be on actions:

- where significant progress can be made within the next five years and
- that can be mainly delivered at the local Blaenau Gwent level, rather than requiring significant regional or national action.

The intention was that these more immediate and detailed recommendations would build on the two longer-term travel related recommendations produced by the Blaenau Gwent Climate Assembly in 2021:

- Integrated Transport. Establish an affordable, integrated road & rail transport system accessible throughout BG. A one ticket system that links to bus, rail & cycle schemes - inclusivity for purchasing of tickets (digital or paper). Accessible all hours with safety via lighting, CCTV and to keep maintained.
- Walking & Cycling. Establish & improve a safe, easily maintainable infrastructure for walkers & cyclist, for either recreational or work purposes, with access to the public transport network. Including lighting & CCTV & Storage for bikes.

The recommendations (next page) are a call to action by Blaenau Gwent Council and their partners. They include:

- a headline recommendation of what to do
- why it is important
- examples of actions.

(Note: The numbering of the recommendations is for reference and does not indicate order of importance.)


THE FUTURE OF TRAVEL IN BLAENAU GWENT CITIZEN'S FORUM
HOW CAN BLAENAU GWENT COME TOGETHER TO MAKE LOCAL TRAVEL FAIRER, GREENER AND BETTER FOR EVERYONE?
WE CAN...
REDUCE CAR USE FOR COMMUTES
•PROVIDE FINANCIAL INCENTIVES FOR CAR SHARING.
•IMPROVE FFLECSI BUS SERVICES FOR SHIFT WORKERS.
•SET UP CYCLE TO WORK SCHEMES.
•LOOK FOR DEDICATED BUS LINKS TO TRAIN STATIONS.
ALWAYS HAVE WHEELCHAIR RAMPS AVAILABLE ON TRAINS
•REMOVE THE NEED TO BOOK.
•TRAIN ALL GUARDS IN DISABILITY ASSISTANCE.
•ENSURE EACH TRAIN HAS A RAMP.
•HAVE STAFF AVAILABLE FOR EVERY TRAIN.
IMPROVE PUBLIC ENGAGEMENT IN TRANSPORT PLANNING
•ENGAGE PEOPLE FROM THE EARLY STAGES OF PROPOSAL DEVELOPMENT.
•USE EVENING MEETINGS TO DISCUSS PROPOSALS FACE TO FACE.
•COMMUNICATE BETTER WHAT'S IN PROPOSALS (PLANS, TIMETABLES)
•LEARN FROM OTHER AREAS ABOUT WHAT WORKS TO ENGAGE PEOPLE.
EXPLORE TAKING BUSES BACK INTO PUBLIC OWNERSHIP
•EXPLORE OPTIONS FOR TAKING CONTROL AS CONTRACTS EXPIRE.
•ALIGN PLANS WITH THE WELSH GOVERNMENT REVIEW OF PUBLIC TRANSPORT
•ENGAGE RESIDENTS TO COMMUNICATE THE BENEFITS, RISKS AND STRATEGY.
•USE PUBLIC OWNERSHIP TO IMPROVE SERVICES AND MEET COMMUNITY NEEDS.
INCREASE TRANSPORT OPTIONS IN THE EVENING
•EXTEND BUS TIMETABLES.
•INCREASE FFLECSI BUS SERVICES.
•TRAIN BUS DRIVERS BETTER TO ENSURE SAFETY
•PROMOTE NIGHT TIME TRAVEL OPTIONS.
TAXI
IMPROVE TAXI SERVICES
•ASK TAXI DRIVERS ABOUT HOW TO MAKE SERVICES BETTER.
•CONSIDER A TAXI DRIVER OF THE MONTH AWARD
•CREATE A CLEAR VISUAL DISTINCTION BETWEEN PRIVATE HIRE AND REGULATED TAXIS.
•INTRODUCE A REPORTING HOTLINE FOR BAD PRACTICE
INCREASE FFLECSI BUS PUBLICITY, CAPACITY AND FUNDING
•EXPAND THE NETWORK ACROSS THE THREE VALLEYS.
•WORK WITH EMPLOYERS TO UNDERSTAND DEMAND.
•PUBLICISE THE SERVICE BETTER.
•MAKE IT POSSIBLE TO BOOK NEARER TO THE TIME.
PROMOTE AND EXPAND COMMUNITY TRANSPORT SCHEMES
•PIGGYBACK EXISTING SCHEMES.
•INCREASE AND IMPROVE PUBLICITY, INCLUDING TO ATTRACT VOLUNTEERS.
•ENSURE THE BOOKING SERVICE IS ACCESSIBLE TO ALL.
•FOCUS ON KEY NEEDS (E.G. HOSPITAL APPOINTMENTS, SHOPPING, COMMUNITY ACTIVITIES)
ENCOURAGE PEOPLE TO WALK, CYCLE OR WHEEL
•MAINTAINING CYCLING AND WALKING ROUTES AND KEEPING THEM WELL LIT.
•IMPROVE ACCESS TO THESE ROUTES.
•ENABLE SOCIAL ACTIVE TRAVEL GROUPS.
PROVIDE BETTER OPTIONS FOR SCHOOL JOURNEYS
•SUPPORT SCHOOLS WITH SETTING UP WALKING BUSES.
•ENSURE PAVEMENTS ARE CLEAR AND REPAIRED.
•EXPLORE USING THE FFLECSI BUS TO SUPPORT THE SCHOOL RUN.
•EXPLORE OPTIONS FOR SCHOOL BUSES.
Blaenau Gwent
Talk2gether
For Community Wellbeing
involve

The Citizens' Forum members also drafted and agreed on thirteen fairness principles, to inform how the council and our partners take forward the recommendations and other actions to improve travel in Blaenau Gwent. *(Note: Again, the numbering of principles is for reference and does not indicate order of importance.)*

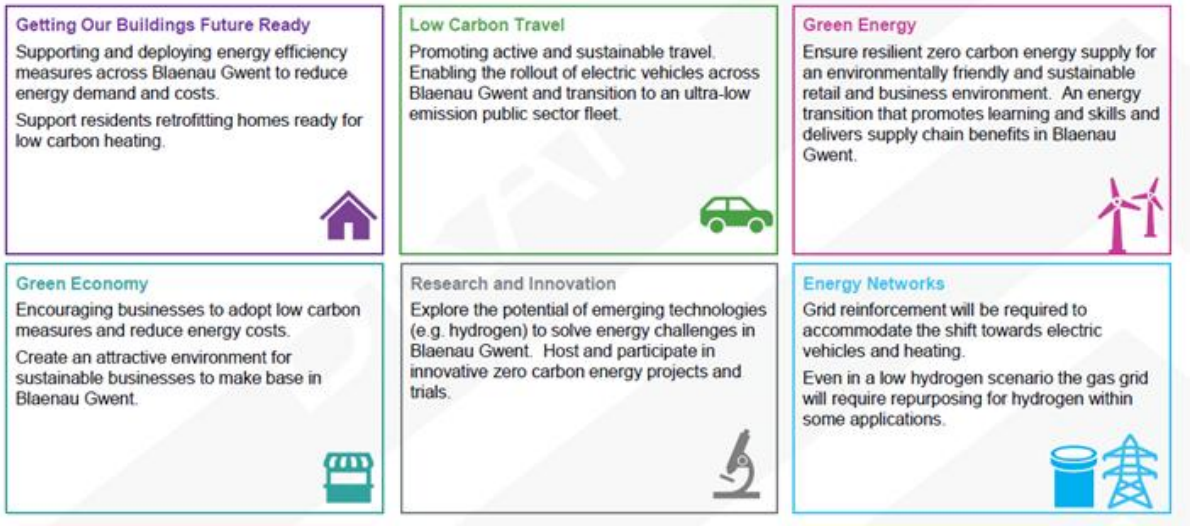
Fair Travel in Blaenau Gwent means…
(1) …**everybody being able to access** transport in general, and public transport in particular
(2) …not cutting climate changing emissions from transport as quickly as possible, if it means some people are missing out on being able to **access transport**
(3) …meeting people's **different needs**
(4) … being **non-discriminatory**
(5) …**avoiding foreseeable unintended consequences** and excluding people by mistake, and minimising them when they do happen
(6) …investment **in public transport and active travel** should be the priority so that it's easier for everyone to use (even if they have a car)
(7) …**encouraging local businesses** and making sure transport links to them
(8) …**targeting support** (not services) at where there is greatest need and/or the greatest ripple effect of impact
(9) …**being transparent** about how and why support is targeted at different groups
(10) …not just looking at transport, but also looking **at technologies, people, and processes as enablers of transport**
(11) …**only asking people to do what they are able to**, as long as it is safe
(12) …it is not fair to ask everyone to make changes all the time, but you could ask **most people to make one small change**
(13) … **people who can comfortably afford to should be encouraged to contribute more**. However, it is not fair to assume that working age people can afford to contribute more
(14) … **companies doing their bit**

Zero Carbon Well-being

An important message across all four themes that the aim of Net Zero 2050 is to achieve our wider well-being objectives for Blaenau Gwent in a way that is zero carbon, rather than simply removing carbon from the existing system. For example, a future zero carbon transport system cannot be considered in isolation from addressing the wider need for an improved integrated transport system in Blaenau Gwent. Similarly, because Net Zero 2050 will require changes to people's homes and lives, it will require public engagement that addresses how these changes will improve people's quality of life as well as reducing carbon emissions. The Blaenau Gwent Climate Assembly linked these elements through its main question ''how can we tackle climate change in Blaenau Gwent in a way that is fair and improves living standards for everyone?' The Assembly made clear that residents saw benefits to Net Zero and expected these benefits, and the costs, to be shared fairly. They expected delivery of improvements to their local environment as part of achieving Net Zero, both as a matter of fairness due to the effort they would be putting in for the wider environment and a test of the credibility of our ability to deliver our wider climate aims.

Local Area Energy Plan (LAEP)

The Local Area Energy Plan (LAEP) is a key document under the Net Zero 2050 Framework as the local energy system includes 70% of Blaenau Gwent's total carbon emissions. The LAEP was prepared on our behalf and provides a data-based picture of what the current local energy system looks like in Blaenau Gwent. It also modelled four different scenarios for how Blaenau Gwent might achieve Net Zero 2050. They are not recommendations or targets but provide a general overview of the challenges for Blaenau Gwent in achieving a Net Zero energy system and a useful indication of the size and direction of the changes needed.



The LAEP also provided a list of potential actions over the next five years for us and our partners, under the six energy propositions in the diagram above. The reporting on these actions is being led at a regional level by Cardiff Capital Region and will be available later in the year. The energy transition for Blaenau Gwent set out in the LAEP will be dependent on wider regional and national actions and policy changes taking place. However, without substantial local action in Blaenau Gwent also taking place these wider changes will not result in a Net Zero energy system in Blaenau Gwent. Most notably these local actions include widespread creation of zero carbon heat systems (e.g. heat pumps) and vehicle charging infrastructure. This local action will also require significant support as the scale of change required locally cannot be achieved within existing resources.

Blaenau Gwent Climate Assembly

In March 2021 44 residents of Blaenau Gwent got together online to discuss the question **'how can we tackle climate change in Blaenau Gwent in a way that is fair and improves living standards for everyone?'** The 44 Assembly Members were chosen at random to be representative of people in Blaenau Gwent (in terms of age, gender, where they live, type of housing etc.) The **Climate Assembly** met for a total of 23 hours online, hearing evidence from over 20 experts (from academics to local residents), and voted on recommendations

they created themselves, five of which received the 80% support needed to become official recommendations.

Through the Blaenau Gwent Mitigation Steering Group partners developed a set of proposed actions that we could take in response to the Climate Assembly at the Blaenau Gwent level (recognising that some elements of recommendations will take action at regional or national scale). We agreed to lead for four of these priorities.

6. Climate Adaptation

Net Zero 2030 and Net Zero 2050 are both about ***climate mitigation*** actions (reducing carbon emissions). The other main form of climate action is ***climate adaptation***, which is about taking action to reduce the impact of climate change that is already taking place/will take place in the future.

We can expect by mid-century:
- warmer and wetter winters
- hotter and drier summers
- higher variability of extreme weather
- increased exposure to weather related hazards
- increased frequency and intensity of wildfire.

Climate adaptation will be needed in a number of areas including: the local economy, natural environment, infrastructure and communities. Since last year's report funding has been secured through the Gwent PSB to developing a regional Climate Change Risk Assessment (CCRA) by March 2026. The CCRA will be based on the methodology developed by NRW on behalf of Welsh Government as part of their Climate Adaptation Strategy. The CCRA will be based on climate data and projections as well as three workshops with decision makers, partners and the public in Blaenau Gwent. The CCRA will identify priority risks and action at the Gwent level, which we and our partners can then use as the basis of our own climate adaptation planning.

7. Concluding Remarks

This report sets out the progress we have made towards Net Zero 2030, including a 5% fall in our direct emissions last year and a cumulative 23% fall over the last five years from our 2019/20 baseline. This year's annual report was shorter as we will be undertaking a Mid-Point Review of our Decarbonisation Plan 2020-2030, which will contain a more detailed look at our progress towards Net Zero 2030 so far. We have reported our territorial emissions for the first time and during the last year held a Citizens' Forum on the Future of Travel in Blaenau Gwent that will inform our work under the transport theme of our Net Zero 2050 Framework.