

Blaenau Gwent County Borough Council

# Net Zero Report 20/21



## Decarbonisation Plan 2020 to 2030



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## 2020/21

*This document is produced in-line with the requirements of the Welsh Public Sector Net Zero Reporting Guide published by Welsh Government in May 2021.*

*The 2021/22 report includes Blaenau Gwent County Borough Council's 19/20 (baseline), and 20/21 data, alongside supporting commentary of progress made against our Decarbonisation Plan 2020 to 2030.*

If you have any queries or questions in relation to this plan, please contact:

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*Mae'r ddogfen hon ar gael yn Gymraeg*

*This document is available in Welsh*



## **Introduction**

The Council's Decarbonisation Plan was adopted in September 2020 at the same time as we declared a Climate Change 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.

The plan provides a strategic overview of how we can achieve this ambition. It adopts a data driven approach, based on our carbon footprint, identifying from this data nine transitions we have to undertake to reach Net Zero.

The plan recognised that considerable further work would need to be undertaken to develop the full detail of the actions needed to deliver these transitions. The plan established a Decarbonisation Board which has been developing this detail, including integrating the significant actions we are already taking into an overarching corporate framework.

The approach in our plan was based on 6 core elements, this report provides an update on progress under each of these elements, with a particular focus on the data element.

## Data Overview

The tables below present the data submitted to Welsh Government in the internationally recognised carbon footprint format divided in to three scopes. Our organisational boundaries include 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). Our wider operational boundaries include emissions both up and downstream, which are the result of our procurement and other organisations delivering services on our behalf (Scope 3 emissions). Sequestration represents the annual change in the net amount of carbon stored in the different land-use types.

The council has previously calculated our carbon footprint for the baseline year of 2019/20 utilising a method based on the Carbon Positive approach developed by Natural Resources Wales. The revised calculation below using the Welsh Government Net Zero method reflects some fairly small variations in the organisational boundaries and emissions factors used, but are broadly similar. The rest of this report analyses the implications of this data for the council and how we aim to address these emissions.

The tables show that 2020-21 has seen a fall of 3,292 tonnes CO<sub>2</sub>e (6%) in our carbon footprint. COVID 19 has likely contributed to this fall in some areas such as staff commute. The Decarbonisation Board will be using this data to look in more detail at the reasons for this decrease.

**Table 1: BGCBC Base Year Greenhouse Gas Emissions (2019/20)**

<b>Scope 1 - Direct Emissions</b>	<b>tonnes CO<sub>2</sub>e/year</b>
Natural Gas Heating	3,942
<i>Natural Gas Heating Aneurin Leisure</i>	1,152
Biomass Heating	60
Diesel Fleet	911
Petrol Fleet	18
Liquid Natural Gas Fleet	35
<b>Scope 1 Total</b>	<b>6,119</b>
<b>Scope 2 - Electricity Indirect Emissions</b>	
Metered - Buildings	1,792
<i>Metered - Buildings Aneurin Leisure</i>	572
Unmetered - Street Lighting	968
<b>Scope 2 Total</b>	<b>3,332</b>
<b>Scope 3 - Other Indirect Emissions</b>	
Purchased Goods and Services	40,992
Extraction, Production & Transportation of Fuel & Energy Used	2,104
<i>Extraction, Production &amp; Transportation of Fuel &amp; Energy Used Aneurin Leisure</i>	288
Water	46
<i>Water Aneurin Leisure</i>	22
Waste Landfill	0.3
Business Travel	278
<i>Business Travel Aneurin Leisure</i>	11
Staff Commute	1,733
Downstream Transportation and Distribution - Silent Valley	216
<b>Scope 3 Total</b>	<b>45,691</b>
<b>Sequestration</b>	
Forest land	-2,350
Grass land	-55
Settlements	919
<b>Sequestration Total</b>	<b>-1,486</b>
<b>Carbon Footprint Total</b>	<b>53,656</b>

**Table 2: BGCBC Greenhouse Gas Emissions (2020/21)**

<b>Scope 1 - Direct Emissions</b>	<b>tonnes CO<sub>2</sub>e/year</b>
Natural Gas Heating	3,725
<i>Natural Gas Heating Aneurin Leisure</i>	798
Biomass Heating	67
Diesel Fleet	905
Petrol Fleet	9
Liquid Natural Gas Fleet	31
<b>Scope 1 Total</b>	<b>5,535</b>
<b>Scope 2 - Electricity Indirect Emissions</b>	
Metered - Buildings	1,272
<i>Metered - Buildings Aneurin Leisure</i>	279
Unmetered - Street Lighting	870
<b>Scope 2 Total</b>	<b>2,420</b>
<b>Scope 3 - Other Indirect Emissions</b>	
Purchased Goods and Services	40,570
Extraction, Production & Transportation of Fuel & Energy Used	1,727
<i>Extraction, Production &amp; Transportation of Fuel &amp; Energy Used Aneurin Leisure</i>	170
Water	42
<i>Water Aneurin Leisure</i>	12
Waste Landfill	0.1
Business Travel	118
<i>Business Travel Aneurin Leisure</i>	2
Staff Commute	1,039
Downstream Transportation and Distribution - Silent Valley	209
<b>Scope 3 Total</b>	<b>43,889</b>
<b>Sequestration</b>	
Forest land	-2,350
Grass land	-55
Settlements	919
<b>Sequestration Total</b>	<b>-1,486</b>
<b>Carbon Footprint Total</b>	<b>50,359</b>

# Taking Action in 2020/21

## 1. Public Leadership

*“We are committed to leading decarbonisation across Blaenau Gwent. We believe that this leadership starts with addressing the climate impact of our own operations. We are already taking a number of positive actions, but we recognise the need to increase our efforts through a systematic corporate approach to decarbonising the authority.”*

Our approach to providing leadership on the climate emergency starts with addressing our own organisational emissions, actions that we are taking to do this include:

### ***Investing in Energy Saving and Renewables across our Estate***

We have invested £4 million, supported by Welsh Government Energy Service, from Wales Funding Programme in lighting, heating, controls and building integrated renewables across 20 properties saving 26,500 tonnes of CO<sup>2</sup> and reducing the council’s energy bills by £9 million over the project’s lifetime.

### ***Developing a New Depot***

An outline business case for a New Depot drafted by the Waste Resource Action Programme (WRAP) was presented through the council’s governance and political process in July 2021. This included plans to co-locate renewable energy infrastructure. The design will include solar panels on the main buildings, rainwater capture for use in vehicle washing, and charging points enabling the move to an electric collections fleet and electric support vehicles.

We will also be planning to be feed renewable energy into the grid from the wind turbine currently being considered for Silent Valley in Ebbw Vale, which will facilitate Blaenau Gwent purchasing lower cost energy for the new centre of operations.

The New Depot will facilitate the decarbonisation of our fleet, including the recent purchase of our first electric vehicles, four small electric vans for £95,000 (supported by Welsh and UK government grants).

### ***Decarbonising Business Parks***

As part of Whole System Business Research Innovation for Decarbonisation (WBRID) we are developing a Smart Industrial and Commercial Energy Platform Model Solutions to achieve Net Zero outcomes. Working with two suppliers to demonstrate



solutions on council owned business parks, which will include creating an energy trading platform utilising existing renewable energy generation and installing new equipment including battery storage, solar PV, heat pump and Artificial Intelligence (AI) controls. This will optimise performance and energy utilisation with a view to decarbonising business parks.

### ***New Operating Model***

Since March 2020 the council has operated agile working arrangements, initially in response to the Coronavirus pandemic. During this period staff and elected members, where they can, have been working remotely and the organisation has shifted to new working arrangements based on digital platforms.

A survey conducted in late 2020 indicated that staff have responded positively to agile working and supported the continuation of working in a more agile and flexible way. The move to the new operating model is having a significant positive impact on our carbon footprint: reduced commuting to and from work; less business travel; the closure of the Civic Centre (an old energy inefficient building), plus a more efficient digital way of working.

## **2. Collaboration**

*“We will work with our partners to develop joint projects to address common sources of carbon emissions and will be developing a plan for decarbonisation of Blaenau Gwent as a whole, through the Blaenau Gwent Public Services Board. This collaborative approach is informed by the principles of the Well-being of Future Generations (Wales) Act 2015.”*

Blaenau Gwent Public Services Board (PSB) have established a Climate Mitigation Steering Group to address territorial emissions, chaired by our Managing Director. The first major piece of work the group has been involved in is the Blaenau Gwent Climate Assembly, the first climate assembly in Wales, which took place online in March 2021. 44 demographically representative Blaenau Gwent residents, heard from over 20 expert speakers and deliberated for 23 hours about the question *‘what should we do in Blaenau Gwent to tackle the climate crisis in a way that is fair and improves living standards for everyone?’*. The Assembly produced five official recommendations, drafted by Assembly participants that received 80% support.

Theme	Recommendation	% Support
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.	91
Transport	Establish & improve a safe, easily maintainable infrastructure for walkers & cyclists, for either recreational or work purposes, with access to the public transport network. Including lighting & CCTV & storage for bikes.	88
House retrofit	Train local tradespeople, create qualifications and upskill local businesses, involve FE colleges and local Universities, future proof it and provide the right courses to enable them to do the work in all green construction.	86
Green space and nature	Implement a programme of woodland preservation and reforestation of BG, using the right tree in the right place for the right reason, increasing opportunities for jobs, biodiversity and connecting woodlands. Making sure the skills are available so we can create green jobs, e.g. saw milling and timber framed housing.	86
Housing new build	Ensure that all new build properties are built using the latest sustainable technologies (E.g. Glanffrwd development as a template), employing local builders and providing a variety of accommodation types appropriate for all inc. homeless/single occupancy up to large families.	81

These recommendations are supported by a detailed report covering the eight themes deliberated on by the Assembly. Assembly members have presented their recommendations to a range of local decision makers, including elected members and senior management at the council. The PSB has issued an initial response supporting the recommendations, and is currently holding workshops to develop more detail about how they can be delivered. The Climate Assembly will inform the development of a plan to address territorial emissions in Blaenau Gwent. Continuing this public engagement is a priority for both the council and the PSB.

We have also been involved in a range of collaborative regional projects including:

- Electric Vehicle Charging Point Project. 62 new dual electric vehicle 22kw fast charging units have been installed at 34 sites across Gwent. A grant of £465,000 was provided for the project from the UK Government's Office for Low Emission Vehicles (OLEV), with match funding provided by each local authority. Welsh Government and Natural Resources Wales both contributed funding towards a feasibility study to support development of the project.

- Gwent Green Grid Partnership. Significant funding has been secured by Gwent partners for a three year programme that will facilitate better woodland management and creation and take action to protect and enhance vital habitats for pollinators and make improvements to green spaces, urban and country parks, cycleways and public rights of way.
- Climate Ready Gwent. Climate change was identified by the five Gwent PSBs as a shared priority. A Gwent specific Carbon Literacy training course has been co-developed and rolled out across the public sector, with senior managers and Elected Members among those who received training.
- Contributed to the development of Cardiff Capital Region Energy Strategy.

### **3. Data Driven**

*“The basis of our plan is a comprehensive assessment of the carbon impact of our operations, including calculating our carbon footprint. Using this data to identify, and target for action, the highest impact areas of our operations.”*

The transitions identified in our Decarbonisation Plan are driven by our carbon footprint data. Each transition represents a coherent area of action with its own distinct low carbon technologies, business models and infrastructure.

The scopes and categories used in calculating our carbon footprint were developed to provide a standardised way of measuring organisations carbon impact. In contrast, the transitions are organised around the actions needed to reduce these emissions, which leads to different groupings. For example, emissions from our fleet sit in scope 1 of our footprint alongside gas because both of these emissions are released directly by the council. However, decarbonising our fleet will require completely different actions to decarbonising our gas heating, therefore, fleet sits within the ‘direct transport’ transition with business travel and commuting, which are part of scope 3 in our footprint, but require similar decarbonisation actions. The transitions also include data about avoided emissions, calculating carbon savings generated by delivering services, for example, diverting municipal waste from landfill. Carbon footprint calculations only report emissions, so developing data about these avoided emissions is an important part of our data driven approach to carbon neutrality.

This approach enables us to break decarbonisation down into manageable parts, and working back from the final destination of carbon neutrality to identify the key actions required in each transition pathway.

### Blaenau Gwent County Borough Council: Transitions Summary 2019/20



Note: Graphic figures based on 2019/20 method based on the Carbon Positive approach developed by Natural Resources Wales.

### Overview of our 9 Transitions

1. Transport Direct travel by our staff in corporate or their own vehicles, includes fleet, commuting and staff travel within work.
2. Transport Commissioned travel and transport by non- council staff delivering goods and services on our behalf, such as school transport, subsidised bus provision and onward transport for waste.
3. Sequestration absorption of carbon on land we own and manage, largely associated with woodland, urban trees and peatland.
4. Procurement: Goods which covers what we purchase as an organisation and includes key items such as clothing, food, IT, machinery, equipment and furniture.
5. 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.

6. Procurement: Works which includes all construction and maintenance of our buildings and infrastructure.
7. Electricity which 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.
8. Heat which includes our heating (and cooling) of our buildings.
9. Waste which covers the carbon impacts of our treatment of municipal waste, whether recycling, landfill or incineration.

#### 4. Our Transition Pathways

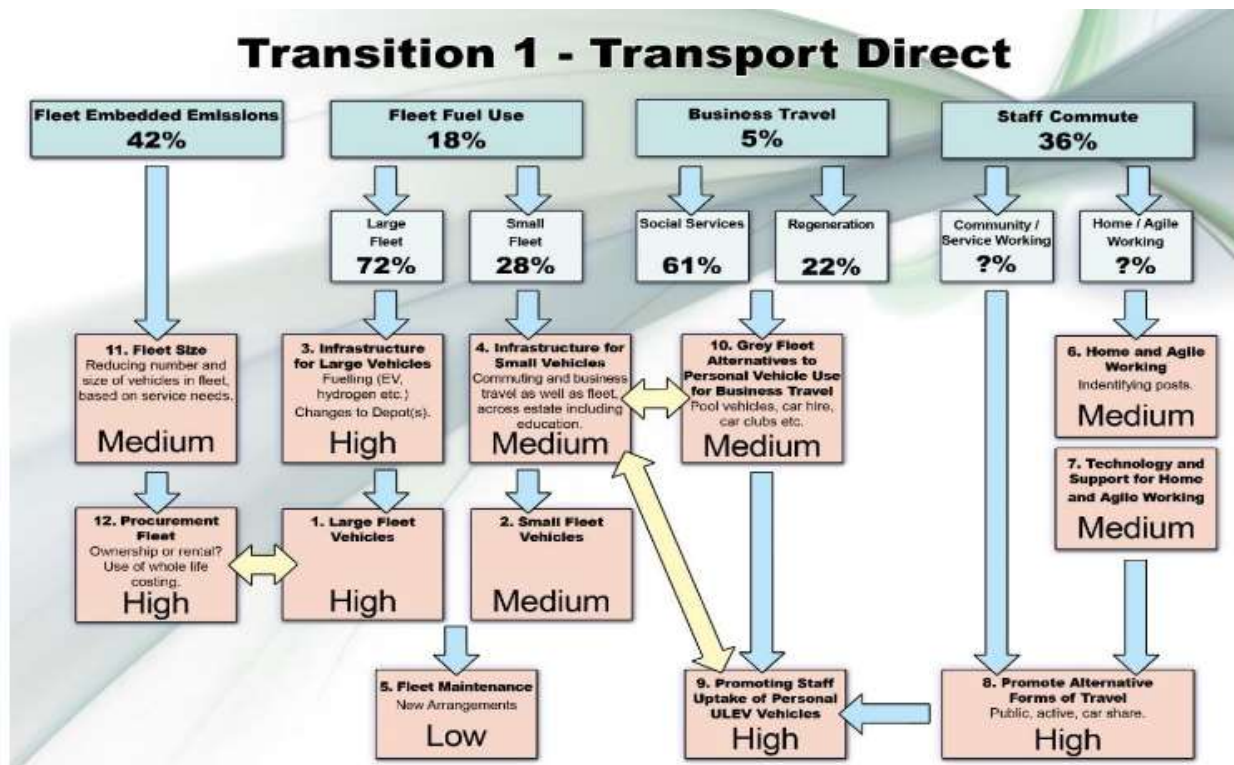
*“Decarbonising the council will involve a number of different transitions in each of these high impact areas (e.g. travel, electricity). The plan includes transition summaries which identify key challenges in achieving carbon neutrality in each of these areas.”*

Since the Decarbonisation Plan was adopted we have been developing the detail of how these transitions are going to be delivered using a readiness assessment method. Workshops involving officers from relevant service areas from across the authority are taking place to develop detailed pathways for the transitions. The workshops assessed our readiness to take action in that transitions across five categories: (i) technical, (ii) policy, (iii) financial, (iv) workforce and (v) delivery readiness.

For each transition the assessment is based on discussion of the key action areas identified as being necessary to reach net zero in that transition. These actions are based on the data from our carbon footprint, to ensure that they cover the entire transition. Each is given a difficulty level based on the scoring system below:

- **Low Difficulty** Actions that are technically feasible and could be undertaken using existing, or limited additional, resources.
- **Medium Difficulty** Actions that are technically feasible but will require significant additional resources.
- **High Difficulty** Actions where best alternative is not yet known and/or not yet technically possible.

As an example, the diagram below for Transition 1 - Transport Direct, summarises both the distribution of carbon emissions (blue boxes) and the difficulty levels of the 12 key actions identified to address these emissions (pink boxes).



## 5. Low Carbon Framework

*“Although each transition will require its own distinct actions, we will also need a low carbon framework to provide a common strategic direction across these transitions.”*

The next step in the readiness assessments is to identify high-level actions, the immediate next steps needed to move the transition forward. For each of these high-level actions a lead service area is identified and the action is built into the service areas business plan and can be monitored through our corporate performance management system. This reflects that we are committed to making decarbonisation an integral part of mainstream corporate business planning rather than an add-on programme to business as usual. It also provides the framework for the Decarbonisation Board to monitor decarbonisation actions across the authority. The Decarbonisation Board will also continue to report regularly to elected members through the democratic process.

Progress on agreed actions will be monitored via the council's existing business planning process on an ongoing basis with updates provided by the identified leads on a quarterly basis. Developing this range of measures to monitor progress is also important because reductions in carbon emissions are often lagging indicators, because in many cases actions only start to produce emissions reductions once they are completed (e.g. when new low carbon heating system is installed and operational).

Example of high-level actions identified in for Transition 1 - Transport Direct:

### **Fleet**

- *Develop a fleet plan and resource its implementation by building costs into Corporate Medium Term Financial Plan. (Lead: Community Services)*
- *Develop and resource a low carbon depot. (Lead: Community Services)*
- *Ensure procurement arrangements are in place to support the plan. This needs to recognise the inter-dependant work on the new depot and collaborative opportunities at a regional and national level. (Lead: Commercial Services)*
- *Replace small fleet ULEV in phased way in line with available space, grid capacity and infrastructure. (Lead: Community Services)*

### **Travel**

- *Embed the new operating model and assess its impact in terms of decarbonisation. (Lead: Commercial Services)*
- *Consider how to further reduce commute / travel impact in wider areas of the business e.g. Schools and Social Services. (Lead: Commercial Services)*
- *Investigate and identify staff demand to travel more actively and consider business case to meet this demand e.g. showers at main sites, secure shower facilities, safe storage and e-charging for cycles. (Lead: Community Services – Active Travel)*
- *Develop a plan for non-depot charging infrastructure for fleet and personal ULEV vehicles at key staff sites in the new operating model. (Lead: Regeneration)*
- *Explore how staff can be encouraged to switch to ULEV. (Lead: Commercial Services)*

## 6. Next Steps

*“A Delivery Board will be established to take decarbonisation forward.”*

The Decarbonisation Board chaired by our Managing Director has been meeting on a regular (6 weekly) basis, and made its first annual report on progress through the democratic process in September 2021. Over the next 12 months the Board aims to:

- Complete the readiness assessment process for all transitions.
- As a result, the Decarbonisation Plan will have been developed into a full action plan and key actions and timelines will have been agreed by the council and incorporated into the corporate performance management system.
- Developed council response to the Climate Assembly recommendations.