



REPORT FROM: DIRECTOR OF PLACE

TO: EXECUTIVE

DATE: 16th NOVEMBER 2023

Report Author: Gill Dickson/ Kerry Ford
Tel. No: 01282 661361
E-mail: Kerry.ford@pendle.gov.uk

CARBON EMISSIONS AND CARBON REDUCTION TARGETS - REVIEW

PURPOSE OF REPORT

To submit the 2022/23 Annual Emissions Report and proposed changes to reporting for approval.

To confirm the approach PBC is to adopt to meet its carbon reduction targets, and the associated resource required.

To ensure that we maximise the opportunities to attract additional funding in order to reduce longer term costs, and support businesses and communities through reduced costs and sustainable long term growth.

RECOMMENDATIONS

That the Executive:

- (1) Approves the 2022/23 Annual Emissions report (Appendix 1).
- (2) Notes progress to date on the 2030 carbon neutral target.
- (3) Agrees the need to review the Pendle Council 2030 carbon neutral target and annual performance indicators.
- (4) Confirms which of the funding options set out in paragraph 37 it wishes to recommend to Council to approve to enable effective delivery of an aligned carbon neutral target for Pendle Council.
- (5) Agrees to receive a report on any revised targets and associated performance indicators at a future meeting, subject to the level of resources agreed.

REASON FOR RECOMMENDATIONS

To better streamline monitoring of the Climate Emergency Declaration and enable Pendle Council to deliver on its carbon reduction targets.

ISSUE

1. PBC declared a Climate Emergency in July 2019, with an aspiration for PBC to be carbon neutral by 2030. This is a huge undertaking involving the decarbonisation of the Council's estate, fleet and services and working with partner organisations, businesses and communities to encourage action whilst ensuring the Council is resilient to a changing climate.
2. It is important to distinguish between 'carbon neutral' status and 'net zero'. Carbon neutral includes the use of carbon offsets to compensate for emissions created elsewhere. This is usually achieved through tree planting and peatland restoration etc. Net zero encompasses all greenhouse gases (GHG), including carbon and methane, and involves making changes to reduce emissions to the lowest possible amount – and offsetting as a last resort.
3. Carbon offsetting should be regarded as a final step as part of efforts to decarbonise. Offsetting comes at a cost, and organisations that rely too heavily on offsetting without making changes to operations are coming under increasing scrutiny and criticism.
4. Though PBC monitors a proportion of the carbon emissions it generates, it should be noted that the Council currently does not have a system in place to calculate its carbon off setting levels, or the resources to introduce a comprehensive emissions monitoring scheme required to meet net zero.
5. In the absence of any annual off setting data, this report focusses on the carbon emissions which can currently be monitored to help us achieve our aspiration for becoming carbon neutral by 2030.

Current Position

6. The Council currently assesses its annual carbon emissions footprint through two reporting mechanisms:
 - The Annual Emissions Report
 - The annual Performance Indicators
7. Both use the same data sets but are presented in different formats. Both have been in operation since prior to 2019.

PBC Annual Emissions Report (Appendix 1)

8. Each year, PBC calculates its carbon emissions generated from our building stock, fleet and staff travel to produce the Annual Emissions report. For the Emissions Report, the data is captured as either Scope 1, 2 or 3 and the methodology applied has remained unchanged since 2009. This year, 2022/23, the data for Pendle Leisure Trust (PLT) has been incorporated in Scopes 1 and 2 as PBC generated emissions, rather than being reported in Scope 3. To ensure consistency of reporting methodologies, the data for the last five years has been recalculated and is provided in Table 1 below.

9. Scope 1 refers to gas consumption in council owned and managed buildings and emissions from our fleet. Scope 2 is electricity consumed within Council owned and managed buildings. Scope 3 captures the indirect emissions of an organisation and for PBC currently includes business-related staff travel. Additional outsourced services provided by Liberata and other external providers are not currently included in Scope 3, however this may change in future as the provision of services changes or if reporting requirements become stricter in relation to suppliers. It should be noted that carbon offsetting is not considered in PBC's Annual Emissions report.
10. Additional data for indirect Scope 3 emissions, such as employee commuting and council waste, are not currently measured or reported. The future collection of this data will be necessary for a more accurate picture of the council's emissions and to achieve net zero by 2050.
11. On the back of assessing 2022/23 performance via the Annual Emissions report, it is unlikely that PBC will be carbon neutral by 2030 as the current trend (Table 1) indicates that PBC emissions will still exceed 1,500 tonnes in 2030. As a minimum, this will need off setting by the amount of carbon produced. There will be a significant cost for managing and implementing any off setting measures.
12. The Executive will need to consider, given the resources currently available, how realistic a 2030 carbon neutral target is, and consider revising the targets and ambitions depending the level of resource to be committed.

Performance Indicators

13. PBC's current Performance Indicators (PIs), which the Council reports on annually through PBC's performance management process, are not currently aligned to our Annual Emissions report, nor to our Climate Emergency Declaration. Both present the data differently (see paragraphs 15 and 16) and neither include PLT data as PBC generated emissions.
14. The Council currently reports on the following PIs, both of which historically have been assigned to the Localities and Policy Team (LCP) and have remained unchanged since 2012:
 - LCP 9a Carbon dioxide emissions reduction from local authority building stock (2% reduction year on year.)
 - LCP 9b CO2 emissions reduction from local authority fleet (5% reduction year on year)
15. It should be noted that LCP 9a does not include PLT energy data. LCP 9a combines both electricity and gas generated emissions from PBC building stock whereas these are recorded separately in the Annual Emissions report (Gas is in Scope 1 and Electricity captured in Scope 2).
16. LCP 9b (fleet data) is also captured under Scope 1 of the Annual Emissions report.
17. These PIs have numerous weaknesses, and as per para 15, are limited in scope, which together make them unsuitable for any long term climate change target (they were established prior to the 2019 Climate Change Declaration).

18. A percentage decrease target based on the previous year would never actually lead to net zero. However, using a baseline year could easily resolve this weakness. It is suggested the baseline PBC adopts is 2019, when PBC declared a Climate Emergency.
19. The adoption of baseline PIs would also require the review and agreement of more ambitious annual targets, as the current ones are not strong enough to enable achievement of the current 2030 carbon neutral target.

Change in reporting – Annual Emissions Report and PIs

20. Given the significance of emissions generated by PLT, the energy consumption of the leisure centres is a key priority for reduction. Thus, rather than exclude PLT emissions from PBC reporting, this will now be included and reported as direct PBC emissions in Scope 1 and 2 of the Annual Emissions report. If agreed, PLT data will feature in any annual PIs going forward.
21. As PLT used a different methodology for reporting emissions, the past five years of emissions data have been recalculated for PLT and incorporated into PBC data for Scope 1 and 2 to provide an accurate picture of our progress to date, and likely trajectory as we approach 2030.

Updated carbon emissions data for period 1st April 2018 to 31st March 2023 (Tonnes)					
	18/19	19/20	20/21	21/22	22/23
Scope 1					
Gas consumption	1354	1337	941	1233	1,079
Owned transport	614	605	612	594	561
Total scope 1	1968	1942	1553	1827	1640
Scope 2					
Purchased electricity	602	537	354	381	350
Total scope 2	602	537	354	381	350
Scope 3 (indirect emissions from PBC operations)					
Business travel	26	25	12	13	28
Total significant scope 3	26	25	12	13	28
Gross emissions - tonnes of CO₂e	2,596	2,504	1,919	2,221	2,018

22. Disregarding results for 2020/21 due to Covid, some significant decreases have been achieved during the past five years – largely due to energy infrastructure changes and the decarbonisation of UK electricity generation. Most reductions to date have not been as a result of actions implemented by PBC, but PBC has benefitted from national infrastructural changes which will soon reach saturation and no longer continue to support a reduction in our emissions.
23. Any significant downward trend will not continue without active intervention. As can be seen from the Table below, the reduction in PBC carbon emissions is likely to plateau if current trends continue to rely on passive, external factors such as the decarbonization of the UK grid.

24. Current trends indicate the 2030 target is unrealistic; PBC will still be generating over 1,500 tonnes of carbon in 2030. The only way to achieve carbon neutral status would be through annual off setting of the total emissions. However, this requires significant investment to manage and implement. Also, as per paragraph 3, reliance on carbon off setting to reach carbon neutral status should be regarded a last resort.
25. Based on current investment levels for both carbon reduction measures and off setting, 2030 carbon neutral status just is not achievable and fundamental changes are required if PBC is to get anywhere close to reaching its 2030 carbon neutral target. For PBC to meet its carbon neutral commitment by 2030, and to achieve net zero by 2050 in line with UK commitments, investment and further action must be taken and appropriate annual PI's put in place.

Table 1- PBC CO2 emissions to 2030

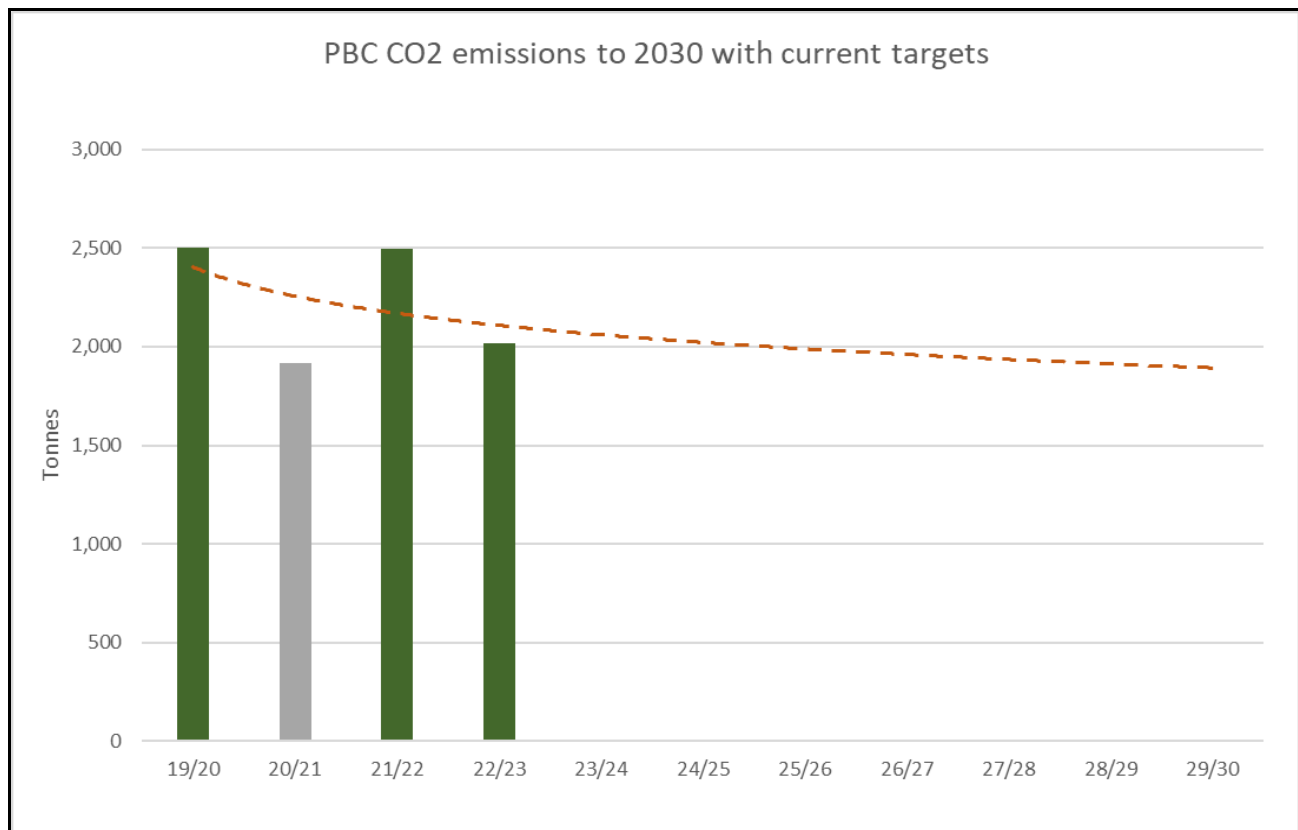
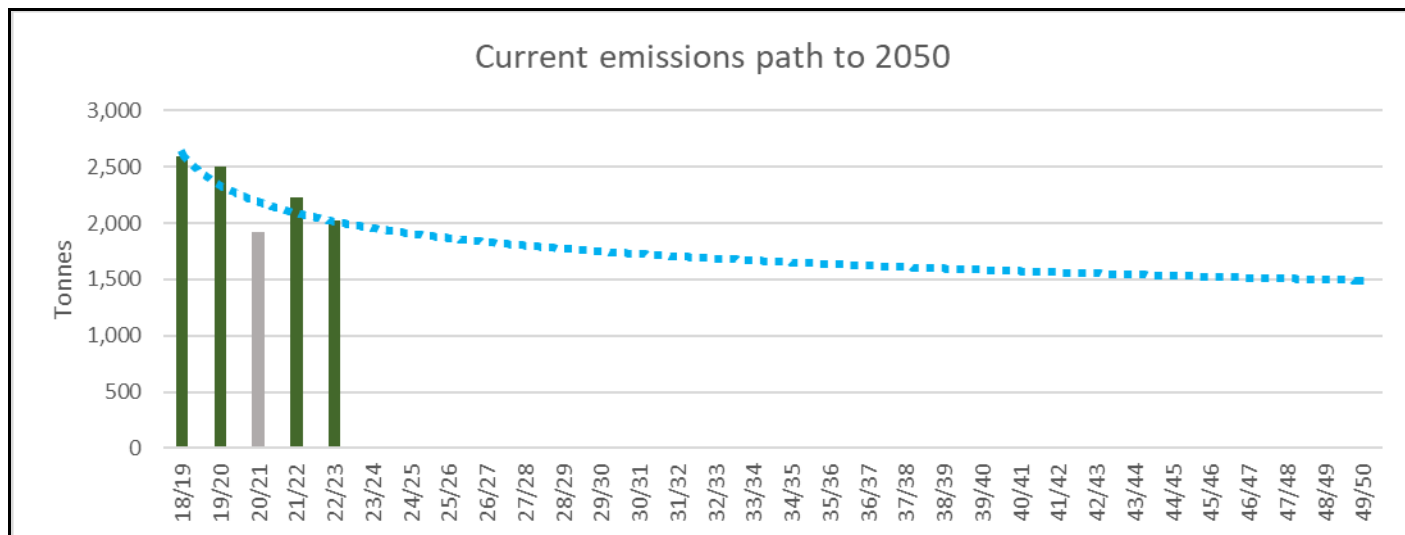


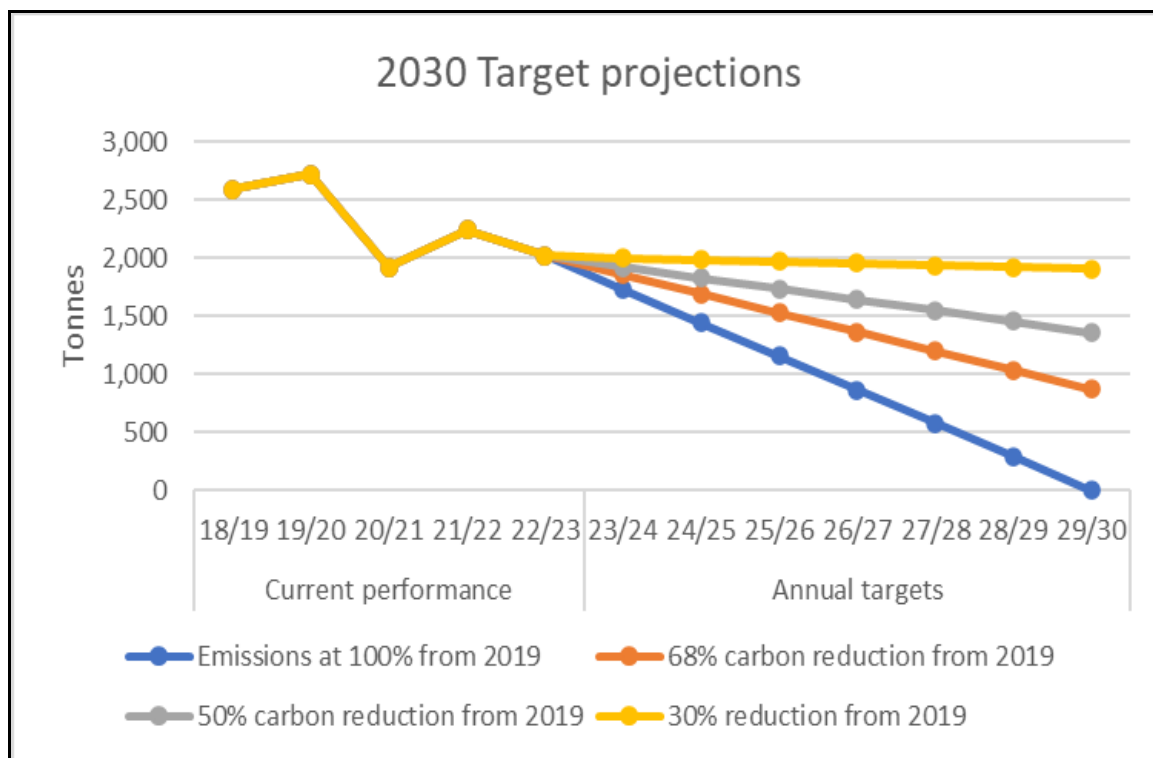
Table 2- PBC CO2 emissions to 2050



Meeting our Commitments

26. In order to achieve our Climate Emergency commitments, a series of annual emission reduction targets are proposed. The council's current target is to be carbon neutral by 2030, with a view to achieving net zero by 2050. Without dedicated resources, interventions and more ambitious reduction targets, PBC will not meet its climate aspirations. This is shown in the Table below, which highlights that PBC current trend and investment level is likely to only deliver a 30% carbon reduction against 2019 baseline. To become carbon neutral in 2030 would require off setting the remaining emissions, projected to be in excess of 1,900 tonnes.

Table 3 – CO2 reduction Target projections



27. As the decline to date is mainly attributed to infrastructural changes such as decarbonization of the electricity grid, this will soon reach saturation point with reduction rates then

plateauing. To date, we have been more reliant on external factors to bring down our emissions rather than any significant proactive interventions.

28. Failing to take action now to decarbonise and improve the efficiency of the building stock, and fleet, and operations as well as supporting businesses and vulnerable communities, will result in increased costs and loss of funding opportunities to meet environmental and wider corporate priorities.
29. Several current and upcoming funding streams are now available to enable local authorities to decarbonise and work towards net zero. Without resource to bid for and manage this additional funding, PBC risks losing the opportunity to access this funding.

Options Rationale

30. The extent of actions necessary to become carbon neutral as an organisation by 2030 and achieve the targets specified in each option will need to be tailored to PBC and modelled, but will include:
 - Decarbonising council energy and transport use, including;
 - a shift to electric vehicles
 - fleet upgrades
 - installation of electric vehicle charge points
 - Improvements to energy efficiency and significant increases in renewable energy in council buildings and land including;
 - LED energy efficient lighting
 - Energy efficiency measures and building upgrades for Council buildings
 - Installation of heat pumps, solar PV and battery storage
 - Establish resources and methods for collating, monitoring, and reporting climate data. Should Pendle Council commit to a carbon neutral Pendle by 2030, it will need to look externally too, working with businesses, schools, communities and the public to enable measures such as :
 - Work with businesses to decarbonise and adopt renewable and energy efficient technologies.
 - Upskilling local workers with green skills to support economic development.
 - Providing advice and funding to households to improve energy efficiency and support retrofitting.
 - Explore and support district heating and community energy schemes.
 - Work in partnership with landowners to promote biodiversity, develop carbon sinks, prevent flooding, and promote access to green space.
31. While the specific costs for programmes of works for Pendle Borough Council have yet to be determined, resource will be required to develop bespoke and comprehensive bids, and manage project delivery once funds are secured.
32. Neighbouring councils have invested in staff dedicated to decarbonisation and have succeeded in attracting funding from multiple funding streams, including:

South Ribble has reported the following successful funding bids:

- £145,004 Public Sector Decarbonisation Scheme Round 1 grant work to the Civic Centre to provide additional solar panels to the roof, solar panel battery storage, LED lighting throughout the building, a building management system to provide more control over the heating.
- £106,000 Office for Low Emissions Vehicles (OLEV) rapid charger electric vehicle points have been installed across the borough.
- Decarbonisation of the majority of the Council estate following a successful bid for £223,000 of Low Carbon Skills Funding.
- £45,000 grant for enforcement of the Domestic Minimum Energy Efficiency Standard (MEES) Regulations.
- £4,968,855 of Public Sector Decarbonisation Scheme Round 3 funding to undertake works to the four Leisure Centres, depot and the Civic Centre to remove gas heating, improve energy efficiency and increase use of renewable energy.

Hyndburn:

- Awarded £2,317,175 from the Public Sector Decarbonisation Scheme in February 2021
- A total transformation of the energy infrastructure is underway at Hyndburn Leisure Centre, projected to reduce emissions by 75% by removing fossil fuel gas heating and replacing with air source heat pumps, a very large solar array with battery storage, together with upgraded ventilation, pumps, energy monitoring systems and all related electrical infrastructure.

Offsetting

33. The Council does not currently include any use of offsetting in emission calculations. Our plan should focus on reducing operational emissions in the first instance to reduce and limit the need for offsetting in future years.
34. Offsetting should only be considered as the final stage in decarbonisation plans, for emissions which are not practical to avoid or eliminate. It is not a primary means of mitigation or a 'quick fix' in place of a meaningful emissions reduction programme.
35. Offset costs are very likely to rise sharply in coming years, and will recur annually. Whereas most carbon reduction projects are either long-term or permanent, meaning that offsetting as a long-term strategy is not cost-effective.

Benefits and Risks

36. The benefits of working towards being carbon neutral ensure not only that the Council reduces its environmental impact, but also achieves the following:
 - Significantly reduces the Council's energy and transport fuel bills to help manage budget deficits;
 - Supports the development of future income streams;
 - Provides future energy security, affordability and resilience against extreme weather conditions;
 - Provides adaptation and resilience support to local businesses and vulnerable communities.

Proposed Options

37. The proposed funding options to enable delivery of an aligned carbon neutral target are set out below:

Options available		2030 carbon neutral target met ?	Net zero by 2050?	Resource required from 23/24	Suggested target for option
Option 1	<p>Big bang. Significant investment and resource allocated to enable PBC to meet the 2030 target and lead action to net zero, supporting businesses and communities in becoming more resilient to the impact of climate change. Examples of the type of work is outlined in paragraph 31.</p> <p>The programme of work would be implemented through staged investment and resource to maximise the opportunities available to draw down additional funding for PBC and smaller businesses. Focus on supporting businesses to minimise their costs and support their viability in order to generate growth in Pendle.</p> <p>Enable PBC to meet a net zero 2030 target and work towards a Pendle net zero by 2050.</p>	Achievable	Achievable	Significant - 2-3 dedicated officers and a budget for projects and match funding. Minimum £300k per year.	(PBC) Net zero by 2030 (Pendle wide) Net Zero by 2050
Option 2	<p>Keep it carbon neutral by 2030 Allocate moderate resource to ensuring commitment to the 2030 target for being carbon neutral is achieved. Apply for external funding to help PBC reduce emissions and operational costs, enabling longer term savings.</p>	Likely	Likely	Moderate - 1 dedicated officer to attract investment and funding and support the emissions action plan, with limited budget. Approx £70k per year.	PBC Carbon neutral by 2030
Option 3	<p>Utilising external skills Allocate some resource to 12 month student placements to help shape future focus and support external funding applications to help PBC reduce emissions and operational costs. Possible research pathways to reach carbon neutral status by 2030 could be: Comprehensive Carbon</p>	Possible	Possible	Low- Annual sponsorship of 1 Master student to drive strategic action. Approx £25k per year	PBC Carbon neutral by 2030

	Footprint Assessment, Renewable Energy Potential, Energy Storage Solutions, Grid Integration and Energy Distribution, Economic Feasibility and Cost-Benefit Analysis, Transport decarbonization and Community Engagement and Social Acceptance.				
Option 4	Maintaining the status quo. No immediate investment. No dedicated resources to climate change and unable to draw down additional funding for capital works. Unlikely to meet any carbon neutral target in the near future.	Unlikely	Unlikely	None.	Unrealistic to set any carbon neutral target

Next steps

38. Recognising the climate emergency we face and the likely impact on PBC services and the communities we serve, it is imperative that the Council has long term, realistic yet ambitious targets with aligned annual performance indicators.
39. It is proposed that the Council continues producing the Annual Emissions Report, with revised methodology to include PLT in Scope 1 and 2. The PIs would then be revised to directly align with the Annual Emissions Report.
40. Ownership of the PIs would move from Resource Directorate to Place, which now provides the strategic leadership for climate change. The Council is in the process updating the climate change action plan.
41. Consideration needs to be given to how the Council will work towards its 2019 commitment to become carbon neutral by 2030. A decision of the level of investment and when this will be implemented is required to maximise the opportunities available to PBC to attract additional funding to support business and communities, and to minimise ongoing operational costs.
42. Once the level of resource has been determined, PBC can revise and update the targets and PIs accordingly. The Executive will receive a further report upon agreement of the level of funding and an updated PBC Climate Action Plan.

IMPLICATIONS

Policy: PBC declared a Climate Emergency in 2019. The Council is currently reviewing its position and associated PIs to establish a fit for purpose target and annual Performance Indicators.

Financial: Financial implications are set out at in the options above. Any further resource implications for delivery of any revised targets will need to be considered by the Executive and recommended for approval by Council as part of the 2024/25 budget setting process when it can be considered as part of the wider financial pressures facing the Council

Legal: None arising directly from this report.

Risk Management: Without changing our course of action, the Council runs the risk of not delivering on the Climate Emergency declaration, with an increase in costs at a later date and reliance on carbon offsetting.

Health and Safety: None arising directly from this report.

Sustainability: Addressing climate change and reducing the council's carbon footprint is fundamental for delivering on the council's carbon neutral commitment.

Community Safety: None arising directly from this report.

Equality and Diversity: None arising directly from this report.

APPENDICES

Appendix 1

Annual Emissions Report 2022/23

GHG Emissions Data

Our Annual Emissions Report details carbon emissions from the Council's operations in accordance with the DEFRA "Environmental Reporting Guidelines", using the latest published emission conversion factors.

This year's scope 1 data includes Pendle Leisure Trust in addition to Pendle Borough Council data for the first time, as previously PLT was included in Scope 3 as outsourced services.

	kg CO2e of CO2	Emissions in tonnes
Scope 1		
Gas consumption	1,078,736	1,079
Owned transport	561,341	561
Sub total	1,640,077	1,640
Scope 2		
Electricity consumption	349,977	350
Sub total	349,977	350
Scope 3		
Business travel	28,040	28
Staff commuting	Not included	-
Waste disposal	Not included	-
Product in use	Not calculated	-
Outsourced services		
Sub total	28,040	28
TOTAL	2,018,095	2,018

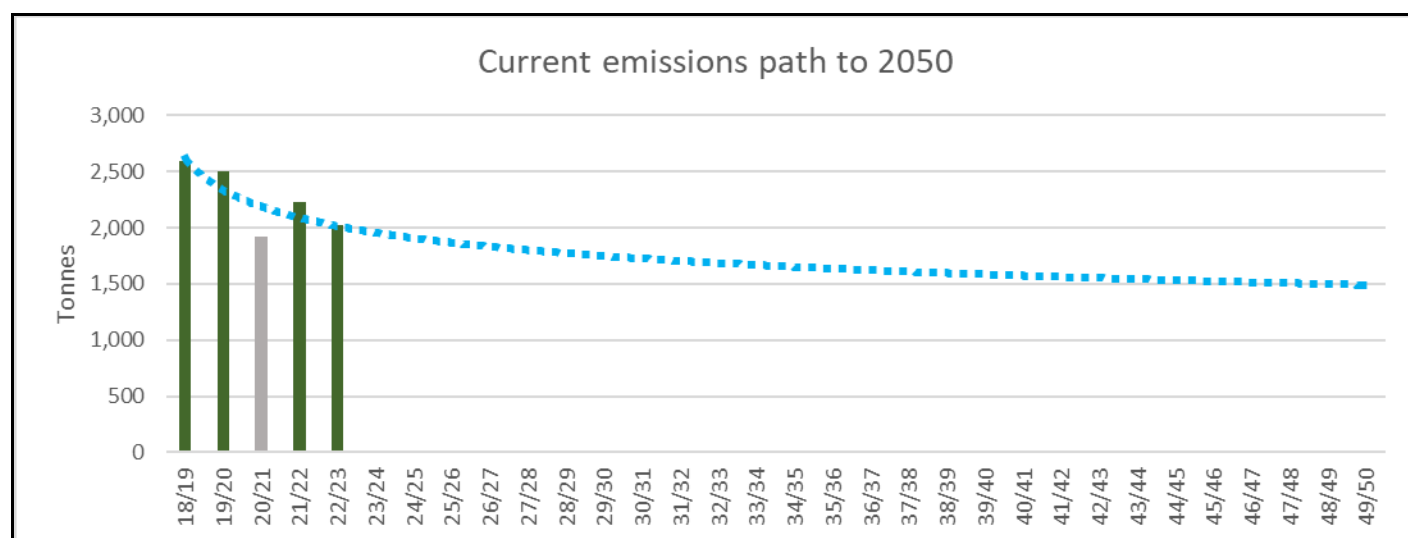
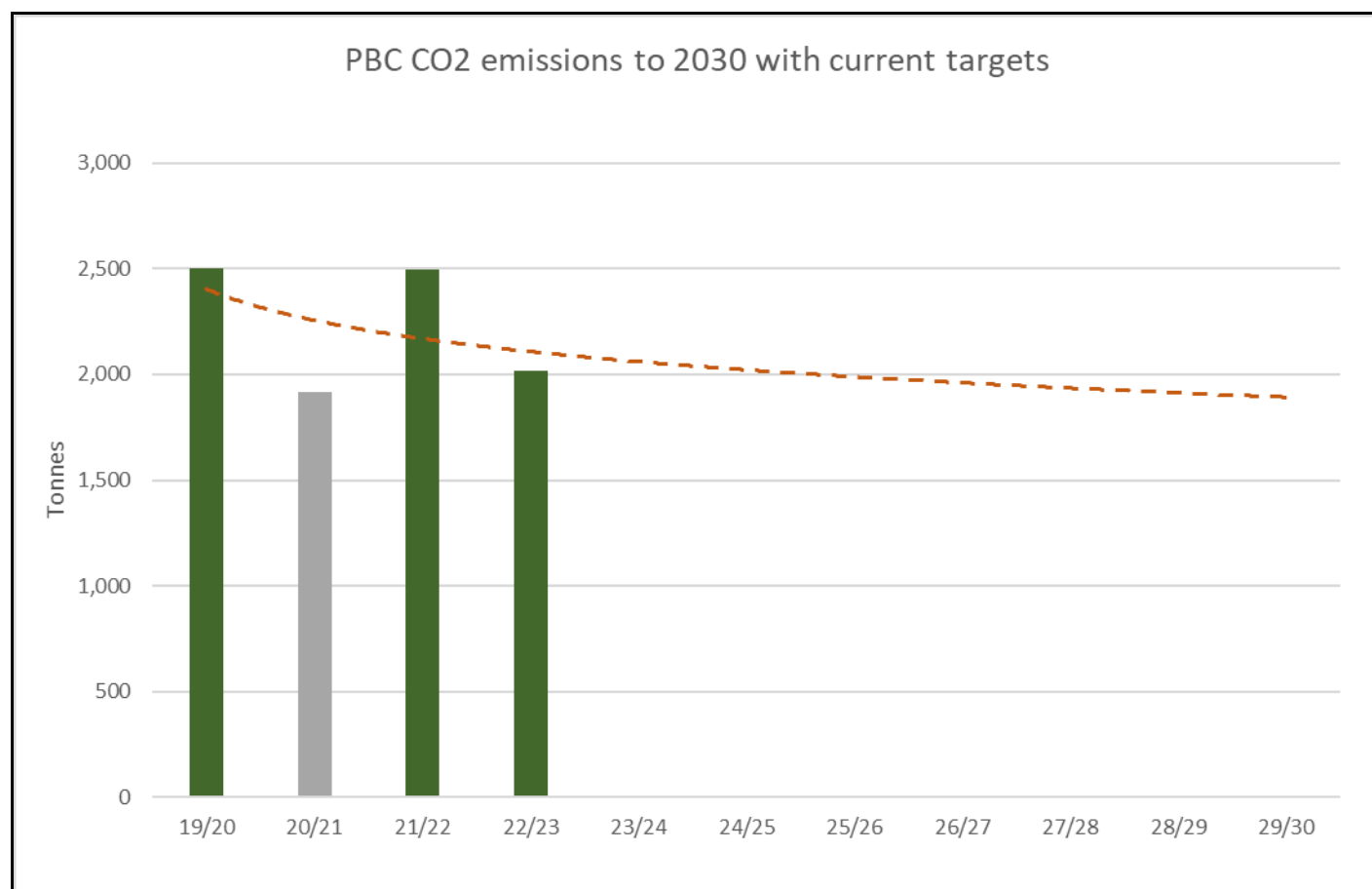
Data for the previous 5 years has been recalculated using the same methodology to provide a clear picture of progress to date.

Updated carbon emissions data for period 1st April 2018 to 31st March 2023					
	18/19	19/20	20/21	21/22	22/23
Scope 1					
Gas consumption	1354	1337	941	1233	1,079
Owned transport	614	605	612	594	561
Total scope 1	1968	1942	1553	1827	1640
Scope 2					
Purchased electricity	602	537	354	381	350
Total scope 2	602	537	354	381	350
Significant Scope 3					
Business travel	26	25	12	13	28
Outsourced services	-	-	-	-	0
Total significant scope 3	26	25	12	13	28
Gross emissions - tonnes	2,596	2,504	1,919	2,221	2,018

of CO2e

Disregarding results for 20/21 due to Covid, some significant decreases have been achieved during the past five years – largely to energy infrastructure changes and the decarbonisation of UK electricity generation.

This downward trend will not continue without active intervention. As can be seen from the figure below, the reduction in GHG emissions is likely to plateau if current trends continue to rely on passive, external factors. For PBC to meet its carbon neutral commitment by 2030, and to achieve net zero by 2050 in line with UK commitments, further action must be taken and appropriate targets put in place.



Supporting Explanations

1. Company Information

The information contained in this report relates to Pendle Borough Council based at: Town Hall, Market Square, Nelson, Lancashire, BB9 7LG.

2. Latest Reporting periods

1st April 2022 – 31st March 2023

3. Approach

We have followed the Government's Guidance on how to measure and report greenhouse gas emissions, using their annual CO2 conversion factors.

4. Organisational Boundary

We have used the financial control approach.

5. Operational Scopes

We have used the scopes set out in the guidance as follows:-

Scope 1 – Fuels used in boilers, furnaces or turbines.

In the Council's case, this is natural gas used in Council owned properties (where the Council is responsible for the boiler) and controlled transport (mainly waste and cleansing services, ground maintenance vehicles and light commercial vans). We have updated our reporting methodology and included for the first year of reporting council owned Pendle Leisure Trust sites, and some Liberata controlled buildings.

Scope 2 - Consumption of purchased electricity.

For the Council this is electricity consumed within Council owned buildings. This includes for the first year council owned Pendle Leisure Trust sites.

Scope 3 – This includes business travel for staff where they are using their own vehicles and outsourced activities. It includes Pendle Leisure Trust and some Pendle-based Liberata staff travel.

6. Reporting period

This Annual Report captures year on year progress since 2018/19.

7. Targets

We have set modest annual CO2 reduction targets of 2% for our building stock and 5% for our transport fleet. We have improved our internal systems and procedures to enable us to monitor our energy consumption quarterly and identify seasonal trends.

8. Carbon offsets

None

9. Green Tariffs

None

10. Assumptions and Exclusions

We have not included greenhouse gas emissions from the following:

- suppliers, contractors or consultants
- the use of water

- waste disposal
- air conditioning and refrigeration systems
- staff commuting
- business travel using the bus, train, taxi or plane
- CCTV

11. Contact for further information

Gill Dickson, Principal Policy Officer

Tel: 01282 661361

Email: gill.dickson@pendle.gov.uk