

BARNSELY METROPOLITAN BOROUGH COUNCIL

This matter is a Key Decision within the Council's definition and has been included in the relevant Forward Plan

REPORT OF THE EXECUTIVE DIRECTOR PLACE TO CABINET

DEVELOPING A ZERO CARBON STRATEGY FOR THE COUNCIL AND THE BOROUGH AND DECLARATION OF CLIMATE EMERGENCY

1. PURPOSE OF REPORT

- 1.1 The report sets out the Council's approach to achieving zero carbon in its operations by 2040 (Zero40) and to supporting, through its Place Leadership role, the transition of the Borough to zero carbon by 2045 (Zero45)

2. RECOMMENDATIONS

- 2.1 That the Council declare a Climate Emergency to support the transition to a zero carbon Council and Borough.
- 2.2 That the Council endorse the existing commitment set out in the Energy Strategy 2015-2025 to be zero carbon by 2040 with the aim of achieving this by 2035 or earlier if practicable.
- 2.3 That the Council approve the carbon reduction targets set for Council's own activities, Zero40 (section 5.4) and for the wider Borough, Zero45 (section 6.2) are adopted as Key Corporate Indicators. That these targets are reviewed on an annual basis following development of Strategic Energy Action Plans with the aim of achieving zero carbon at an earlier date if practicable.
- 2.4 That the Council develop a programme of funded five year Strategic Energy Action Plans (SEAP's) as set out in Section 5.4 of this report
- 2.5 That the Council adopt a Place Leadership role in delivering zero carbon through the Zero40 and Zero45 approach as set out in Section 5 and Section 6 of this report
- 2.6 That the Council establish a Zero40 Zero45 Feasibility and Enabling Fund to facilitate project development.

3. INTRODUCTION

- 3.1 Since the Intergovernmental Panel on Climate Change (IPCC) reported in October 2018 the Climate Emergency movement has emerged. The report warned of the rapid and far reaching consequences of the earth's warming of over 1.5°C. It concluded that limiting global warming to 1.5°C would require rapid, far-reaching and unprecedented changes in all aspects of society.

- 3.2 The Council has already agreed and delivered many projects and programmes to help reduce carbon emissions. These include replacing coal boilers at the Metrodome, installing low energy street and internal office lighting, introducing ULEV vehicles into the service's fleet and installing solar PV to its office and housing stock. In addition the Council administers a successful affordable warmth programme with aim of improving energy efficiency in privately owned housing stock in the Borough.
- 3.3 By the end of March 2019, carbon emissions from Barnsley Council's operations had reduced by 39% from 2012/13. This puts the Council ahead of the target to reduce emissions by 30% by 2020/21 as set out in the Energy Strategy 2015/2025
- 3.4 The IPCC report stated that limiting global warming to 1.5°C had clear benefits to people, localities and natural ecosystems. Programmes of development which are designed to keep global warming below 2°C could go hand in hand with ensuring a more inclusive economy and equitable society.
- 3.5 At the end of June 2019 the UK Government set down primary legislation for the UK to be zero carbon by 2050 mirroring the UK's Committee for Climate Change advice that the UK should aim to be net-zero by 2050.
- 3.6 Since November 2018, over 80 UK Local Authorities have declared Climate Emergencies as a means of galvanising support for the climate change agenda at a local level. Many have set targets to be carbon neutral by 2030-35, with smaller numbers stating 2040 or no date at all.
- 3.7 A Climate Emergency declaration issued by a council can only be a powerful catalyst for action if paired with a clear deliverable action plan. Several early adopters with shorter end dates have had to extend their time frames because they found the dates were unachievable and unaffordable.
- 3.8 This report addresses how Barnsley Council can publically respond to the IPCC report and the developing Climate Emergency movement in a way that is ambitious but also sets targets which are based on a practicable action plan

4. PROPOSAL AND JUSTIFICATION

- 4.1 That the Council declares a Climate Emergency as a means of demonstrating its commitment to be zero carbon by 2040 to partners and residents and as a means of demonstrating its Place Leadership role in the Borough's transition to zero carbon by 2045. See appendix 1 for the Climate Emergency Declaration
- 4.2 The IPCC recommend that global emissions of carbon dioxide are reduced by 45% from a 2010 baseline by 2030 and reach net zero by 2050 to limit the rise in global temperatures to 1.5°C. The UK's Committee on Climate Change (CCC) also advised the Government to legislate to be net zero carbon by 2050.
- 4.3 BMBC's Energy Strategy (2015-25) has an existing commitment to be zero carbon by 2040; it is proposed that the Council reaffirm its current Energy Strategy making the commitment to be zero carbon in its operations by 2040 as its main carbon target. This internal programme will be known as Zero40 and will become a Key Performance Indicator for the Council.

- 4.4 The Council will work with its key partners (NPS Barnsley, Berneslai and BPL) to assist them in achieving zero carbon in their operations by 2040.
- 4.5 In relation to the Borough's overall emissions, the Council is a relatively small emitter of carbon accounting for only 2% of emissions

Sectoral Emissions of Carbon within Barnsley	Share
Industry and Commercial	36%
Domestic Housing	37%
Transport	27%
BMBC's contribution via its operations	2%

However, through its policies and strategies and by example the Council can exercise its Place Leadership role by promoting and enabling carbon reduction across the Borough and by aligning by its strategies with other anchor institutions in the Borough.

It is recommended, as part of the wider programme, that the Council sets a reporting target for the emissions generated in the Borough as a whole. The Council will look to support the Borough, through facilitation enabling and example to become zero carbon by 2045 (ahead of the new Government target which is 2050); this will be known as Zero45.

5.0 Zero40

- 5.1 Zero40 will focus on improvement in the Council's environmental performance as measured by the reduction in its carbon emissions; this will be measured against agreed milestones and will result in the Council being zero carbon in its operations by 2040.
- 5.2 The majority of the Council's carbon emissions come from gas and electricity used to heat and power buildings. Some also come from fuel and mileage from transport and travel.

The proposal to become zero-carbon by 2040 will include emissions from the following

- Scope 1 - direct emissions such as combustion of mains gas or oil for heating
- Scope 2 - indirect emissions such as emissions associated with generation of electricity
- Scope 3 - other indirect such as business mileage or rail travel

As of year-end 2018, BMBC emitted 28,000 tonnes of carbon when measured against these three categories. A full review of the current reporting scope will be undertaken as part of the preliminary activities.

- 5.3 To keep within the IPCC recommendations it is proposed that the Council commits to reduce its carbon emissions by 60% by 2030 and become zero carbon in 2040 when benchmarked against the most recent years' emissions (2017-18). This will

equate to the Council reducing its carbon emissions by 1,600 tonnes per annum in the early years of delivery reducing to 1,000 tonnes in the later years.

5.4 Zero40 will be underpinned by four evidence based Sustainable Energy Action Plans (SEAP's) for 2020-25, 2025-30, 2030-35, and 2035-40. Each SEAP will have carbon targets and be driven by five themes and will build on existing carbon reduction programmes for the Council:

- Energy Efficiency and Procurement of Energy
- Resource Efficiency
- Sustainable Transport
- Renewables
- Decentralised Heating

Importantly each SEAP will set out the projects and programmes and that are required to achieve our ambitions by 2040.

	2018 baseline	60 % reduction by 2030		To zero carbon by 2040	
SEAP period		2020-25	2025-30	2030-35	2035-40
Emissions (tonnes)	28,000	19,600	11,200	5,600	zero

5.5 The resourcing of the first two Strategic Energy Action Plans; 2020-2025 and 2025-2030 will be a key consideration when developing the new Barnsley 2030 Plan.

5.6 A critical element of both zero40 and 45 programmes will be increasing the number of trees across the Borough. The Government sponsored Trees 2020 initiative will play a role in these plans and with local communities we will increase our existing tree planting projects. This will mean that during the first 5 years of zero40 (2020-2025) an additional 10,000 trees will be planted across the Borough.

5.7 Zero40 will require that all new programmes are approved on the basis of 'no harm' in relation of the Council's existing carbon emissions. Where a proposal does result in an increase in current emissions, mitigations such as offsetting should be identified.

5.8 While Zero40 is an internal carbon reduction programme, in outlook it is essentially outward facing and will link into Inclusive Economy programmes ensuring that the business and communities within the Borough are able to participate and share in the benefits of transitioning to a low carbon economy. For example, skills based programmes will be developed to ensure that Barnsley's residents can benefit from new employment opportunities. In additional measures will be put in place to ensure that local SME's are ready to exploit the future investment programmes to deliver Zero40.

5.7 Zero40 will align with the financial, delivery and reporting requirements of the Council's 2030 strategy. By identifying the source of carbon emissions within the Council's operations, practical ownership of carbon reduction targets can be cascaded to different Directorates and Services and mitigations built into their existing and proposed programmes.

5.8 The Council is reducing the level of carbon it emits via a number of existing and planned programmes. Projects which are not directly described as carbon reducing have the capacity to significantly reduce the carbon emitted through their design or as a consequence of the primary measure. These Council funded projects include:

- Replacement of the Metrodome’s coal fired boilers
- Updating the heating and ventilation to BMBC corporate buildings
- Affordable warmth programmes
- Deployment of renewable technologies via Berneslai Homes
- The design and build out of Solar PV and thermal into the Glassworks
- Deployment of Solar PV onto existing corporate buildings.

Building carbon reduction into the delivery of existing and planned programmes will give local accountability and will be the most cost effective method of delivery.

6.0 Zero45

6.1 Zero45 is essentially a programme where the Council is facilitating and enabling the Borough’s transitions zero carbon by 2045. The longer time frame recognises the loss of direct control which the Council has and the greater role for National Government bringing through capital programmes and regulatory control.

6.2 It is clear that the Government’s commitment to achieve zero carbon by 2050 will require considerable financial resource amounting to many billions of pounds our ability to achieve the more ambitious zero 45 target will be dependent upon these resources being made available by central government.

2018 Sectoral Emissions of Carbon within Barnsley	Tonnes of Carbon
Industry and Commercial	436,000
Domestic Housing	438,000
Transport	324,000
Total	1,199,000

6.2 To meet the IPPC and CCC recommendations it is proposed that the Borough sets targets to achieve a 45% reduction in carbon emissions by 2030 and to be zero carbon by 2045 and to mirror the 5 year delivery plans of the zero40 programme

SEAP period	2018 baseline	45% reduction to 2030		To zero carbon		
		2020-25	2025-30	2030-35	2035-40	2040-45
Emissions tonnes	1,199,000	850,000	503,000	378,000	253,000	0

6.3 In common with zero40, zero45 will have five broad themes and offer a wide range of possible support which can be led by National, Regional and Local Authorities:

Energy efficiency: is where the largest reduction in emissions are possible; developing a major energy retrofit programme for non and domestic buildings, setting new zero carbon in construction and operation targets, working with the

largest employers to set targets for energy reduction; working with commercial property owners to reduce carbon, develop a smart energy town centre; implementing new technologies for monitoring energy in buildings, and retrofitting lighting. Behaviour change will be an important component of this programme.

Resource Efficiency: this programme will encourage resource efficiency across the town with businesses and consumers. Actions will include: zero waste projects and evaluating opportunities for capturing waste heat and power; promoting circular economy, promoting resource efficiency to SME; engaging with organisations involved in reuse and repair activities in the town.

Sustainable Transport: a reduction programme will support the Local Transport Strategy, aiming to reduce the need to travel, encourage active travel and decarbonising travel. This includes a range of measures in the Active Travel Action Plan, walking and cycling. Other initiatives include: working with large employers to set travel targets; promoting Green Fleet Health checks; working with a town Car Club; supporting Buses on decarbonising public transport and engaging with other transport providers and publishing an electric vehicle strategy aiming to substantially increase the number of charging points across the town.

Renewables: aims to increase the use of renewables in both the domestic and non-domestic sectors and encourage innovation in adopting new technologies. Actions to be taken forward include: piloting the wider use of ground source heat pumps to serve existing housing, assessing the potential for renewables in the Council's estate; providing new guidance for community groups and householders; and assessing opportunities for a number of specific renewables projects such as biodiesel, solar P.V. and microhydro.

Decentralised Heating: A key objective of the SEAPs is to decentralise energy. This aims to increase the use of decentralised heating in the Borough, evaluating the potential for expanding schemes and the use of geo thermal resources such as mine water. Actions will include: publishing an Barnsley District Heating Strategy and heat maps; evaluating the potential from our own estate; providing guidance for developers; working with partners to assess opportunities from new domestic and non-domestic developments.

7.0 Governance

7.1 Zero40 carbon reduction targets will be a key corporate KPI for the Council with progress monitored by the existing carbon management group; targets initially will be:

- Progress toward the Council's 2030 emissions target
- Progress toward the emissions target set by each 5 year SEAP
- Corresponding Departmental and Service KPI's will be set to ensure that the Council's Corporate KPI is met

7.2 Zero45 as an outward facing programme will be monitored by a new Advisory Group which is likely to include stakeholders from the private public and third sectors Its function will be to monitor the Borough's progress to achieving zero carbon status in 2045. It will initially monitor:

- Progress toward the Borough's emissions target
- Progress toward the Borough's emissions target including the SEAPs

8. CONSIDERATION OF ALTERNATIVE APPROACHES

8.1 Do nothing

The Council's existing Energy Strategy 2015-2025 includes a commitment to be zero carbon by 2040 and two specific carbon reduction targets:

- Reduce carbon emissions from Barnsley MBC operations by 30% by 2020/21 from 2012/13 baseline: at the end of March 2019, carbon emissions had been reduced by 39%.
- Generate 20% of energy used in Barnsley MBC operations from on-site renewable sources by 2020/21: at the end of March 2019, while the Council had an installed renewable capacity of 20%, they were only providing 16% of the energy used by the Council. The reasoning behind this shortfall is understood and an action plan to close the gap is being developed.

The Council has been successful in achieving these targets however this in turn raises several issues:

- The Energy Strategy's delivery targets will need refreshing from 2020; any update to its carbon targets should reflect the current reality of climate change and the need for urgent action.
- Some of the reduction in the Council's emissions has been due to the 'greening' of the grid and the disposal of Council buildings. Research for Sheffield and Leeds City Regions shows that to achieve more ambitious carbon reduction targets more focus and ownership is needed locally.
- To achieve a zero carbon Council in 2040 (and more so for the Borough to become zero carbon by 2045) a significant step change in delivery is required. This will only be achieved if the Council acts on its civic leadership mandate and assists its residents and businesses to access the opportunities which will be presented.

8.2 Set a more challenging target

The Council may be challenged that 2040 is not ambitious enough; most other local authorities who have declared climate emergencies have carbon neutrality targets of 2030 or 2035. Environmental activists have openly challenged targets of even 2035.

While a 2030 target may be unobtainable it is however a statement of intent, many Local Authorities have declared for 2030 on that basis.

Zero40 is an existing commitment and is a reaffirmation of an existing carbon reduction commitment; it also sets out the mechanism by which this can be achieved. It is a purist approach in that it aims to eliminate not only Scope 1 but

also Scope 2 and 3 emissions (See para 5.2 for definitions) something which many of the shorter dates do not do.

The Council could:

- Declare a target for its own emissions of 2030 in the knowledge that it would be largely undeliverable and is uncoded.
- Declare a target of 2035; to achieve this delivery plan should assume an 80% reduction in carbon emissions by 2030 followed by full carbon neutrality in 2035.
- Retain zero40 but caveat it with 'working toward to 2035'.

Consideration should also be given to the scheduling of Borough's zero carbon status by 2045, as the Council only emits 2% of the Borough's emissions in main be seen as inequitable that we expect the Borough to be zero carbon only 5 years after the Council.

9. IMPLICATIONS FOR LOCAL PEOPLE/SERVICE USERS

- 9.1 Integral to the delivery of the Zero40 and Zero45 will be social value considerations; creation of community/social enterprises, apprenticeships, mentoring ex-offenders to gain employment and supporting disabled people into the workplace, supporting Area Councils and the 'Love Where You Live initiative
- 9.2 Outputs will include a cleaner greener Borough, healthier residents due to Active Transport programmes, reduction in fuel poverty and an improvement in the quality of the housing stock.
- 9.3 The transition to a zero carbon Borough will include significant opportunities for SMEs to deliver the required programmes and technologies. Currently there are known skill shortages within the key areas of delivery which the residents will be able to access following tailored learning and training programmes

10. FINANCIAL IMPLICATIONS

- 10.1 Consultations have taken place with representatives of the Service Director – Finance (S151 Officer).
- 10.2 There are no direct financial implications to the Council as a result of changing the Council's Energy Efficiency Strategy as proposed in this report.
- 10.3 The Council is currently investing in a number of projects that support the strategies outlined in this report. For example, a £2M investment has been made to replace the heating systems at the Metrodome Leisure Centre with more energy efficient systems, significantly reducing the Council's carbon emissions.
- 10.4 In addition funding totaling £0.250M earmarked for the Affordable warmth programme, supports energy efficient projects delivered by the private sector.

- 10.5 A number of projects are currently the subject of business case outline proposals including the installation of Electric Vehicle charging points, Council's Green Fleet and numerous Solar Energy projects. Other innovative ideas are also being explored and researched for example work is under way to test viability of mine water to heat Council owned properties.
- 10.6 Whilst the Council remains committed to delivery of the strategies outlined in this report, there are no resources earmarked to fund any specific proposals brought forward to compliment these strategies. Any proposals submitted will need to be considered against the Council's other competing priorities in line with the approved Capital Investment Strategy.
- 10.7 Officers are however currently considering options to establish a feasibility and enabling fund to provide more detail on energy saving initiatives. Once complete, any associated cost will be considering as part of the update to the Council's Medium Term Financial Strategy.

11. EMPLOYEE IMPLICATIONS

- 11.1 Can be delivered from existing resources within the Housing and Energy teams working in partnership with existing internal and external teams.

12. LEGAL IMPLICATIONS

- 12.1 The UK Government has passed legislation which commit the UK to being net Zero carbon by 2050.

13. CUSTOMER AND DIGITAL IMPLICATIONS

- 13.1 None

14. COMMUNICATIONS IMPLICATIONS

- 14.1 A an internal and external marketing campaign will be used to introduce and report on progress

15. CONSULTATIONS

- 15.1 Leeds and Sheffield City Regions
APSE
BMBC Finance

16. THE CORPORATE PLAN AND THE COUNCIL'S PERFORMANCE MANAGEMENT FRAMEWORK

- 16.1 New carbon measurements will be introduced to track performance.

17. PROMOTING EQUALITY, DIVERSITY AND SOCIAL INCLUSION

- 17.1 An additional benefit of zero40 will be the opportunities for learning and training for individuals and for Barnsley based SME's to participate in the significant capital programmes which will underpin the transition to a low carbon economy.

18. TACKLING THE IMPACT OF POVERTY

- 18.1 Reduction in fuel poverty, greater training opportunities and access into higher skilled jobs

19. TACKLING HEALTH INEQUALITIES

- 19.1 Cleaner and Greener environment will reduce the impact of the NHS and existing housing stock.

20. REDUCTION OF CRIME AND DISORDER

- 20.1 No impact

21. RISK MANAGEMENT ISSUES

- 21.1 Regular reporting to the zero40 steering group will manage the risk of not achieving the overall target of being zero carbon by 2040 or each of the SEAPS

22. HEALTH, SAFETY AND EMERGENCY RESILIENCE ISSUES

- 22.1 No specific health and safety issues however the report does address issues of the Borough's resilience given likely climate change events

23. COMPATIBILITY WITH THE EUROPEAN CONVENTION ON HUMAN RIGHTS

- 23.1 Not applicable

24. CONSERVATION OF BIODIVERSITY

- 24.1 The report addresses the issue of climate change which has significant implications for conservation and biodiversity

25. LIST OF APPENDICES

Appendix 1: Climate Change Declaration.

26. BACKGROUND PAPERS

References:

1. Fossil CARBON & GHG emissions of all world countries, 2017:
http://edgar.jrc.ec.europa.eu/overview.php?v=CARBON_andGHG1970-2016&dst=GHGpc

2. World Resources Institute: <https://www.wri.org/blog/2018/10/8-things-you-need-know-about-ipcc-15-c-report>
3. The IPCC's Special Report on Global Warming of 1.5°C: <https://www.ipcc.ch/report/sr15/>
4. Scope 1, 2 and 3 of the Greenhouse Gas Protocol explained: <https://www.carbon trust.com/resources/faqs/services/scope-3-indirect-carbon-emissions>

If you would like to inspect background papers for this report, please email governance@barnsley.gov.uk so that appropriate arrangements can be made

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Financial Implications/Consultation



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*(To be signed by senior Financial Services officer
where no financial implications)*

Appendix 1: Climate Change Declaration

The Council notes:

1. That the impacts of climate change are already causing serious damage around the world.
2. That the 'Special Report on Global Warming of 1.5°C', published by the Intergovernmental Panel on Climate Change in October 2018,
 - a. describes the enormous harm that a 2°C average rise in global temperatures is likely to cause compared with a 1.5°C rise, and
 - b. confirms that limiting Global Warming to 1.5°C may still be possible with ambitious action from national and sub-regional authorities, civil society and the private sector.
3. That all governments (national, regional and local) have a duty to act, and local governments that recognise this should not wait for their national governments to change their policies;
4. That strong policy to cut emissions also has associated health, wellbeing and economic benefits for residents and business of the Borough.

Council therefore commits to:

1. Declare a 'Climate Emergency' that will require the Council to:
 - a. Ensure that all strategic decisions, budgets and approaches to the delivery of its services and place making are in line with a shift for the Council to be zero carbon in its operations by 2040.
 - b. Exercise its role of community leadership by supporting and working with all other relevant agencies and bodies towards making the Borough zero carbon through all relevant strategies, plans and shared resources by 2045.