# **Public Document Pack**





# **Delegated Decisions - Joint Cabinet Member**

Date: Monday, 13 January 2020

To: Councillors D Davies and M Rahman

Item Wards Affected

1 <u>Carbon Management Plan</u> (Pages 3 - 26) All Wards

Contact: Lisa Davies

E-mail: Cabinet@newport.gov.uk Date of Issue: 03 January 2020



# Report



# **Cabinet Member for Sustainable Development Cabinet Member for Assets**

Date: 13 January 2020

Subject Carbon Management Plan

**Purpose** To consult with the Cabinet Member for Sustainable Development and the Cabinet

Member for Assets regarding the Carbon Management Plan for the council's reduction in

direct carbon emissions.

**Author** Energy & Sustainability Manager

Housing & Assets Manager

Ward All

**Summary** The Council is responsible for direct carbon emissions of c17,000 tonnes CO<sub>2e</sub> per year,

principally related to our buildings, street lighting and fleet. The UK has legally committed for the UK to be carbon neutral by 2050. Welsh Government have set a challenge for the

Welsh public sector to be carbon neutral by 2030.

The Carbon Management Plan provides a framework for the council's carbon reduction activities. Its approval will ensure our decarbonisation progresses towards the goal of

becoming a carbon neutral organisation by 2030.

**Proposal** To approve and adopt the Carbon Management Plan attached to this report, as a formal

policy of Newport City Council.

This will provide a consistent framework to further develop an extensive carbon reduction

programme and deliver long-term sustainable environmental and financial benefits.

**Action by** Head of Regeneration, Investment & Housing

Timetable Immediate

This report was prepared after consultation with:

- Senior Leadership Team
- Capital Strategy and Asset Management Group
- Strategic Director Place
- Head of Regeneration, Investment and Housing
- Housing & Assets Manager
- Head of Finance Chief Finance Officer
- Head of Law and Standards Monitoring Officer
- Head of People & Business Change
- Newport Norse

#### Signed

#### **Background**

The Council is responsible for direct carbon emissions of 17,142 tonnes  $CO_{2e}$  per year (2017/18), principally related to our buildings (75%), streetlighting (15%) and vehicle fleet (10%). The UK has put into law the commitment for the UK to be carbon neutral by 2050 and the Welsh Government have set a challenge for the Welsh public sector to be carbon neutral by 2030.

The Carbon Management Plan provides a framework for the council's carbon reduction activities in the coming years. Its approval will ensure our decarbonisation agenda progresses towards the goal of becoming a carbon neutral organisation by 2030.

The council invested in the post of Energy & Sustainability Manager in 2017 and has now appointed two further members of staff to improve the management of utilities and accelerate the carbon reduction agenda. Completed, ongoing or future activities which contribute the targets within the plan include the following:

- The creation of interim targets for carbon reduction and renewable energy installations.
- Engagement with the RE:Fit energy efficiency procurement programme, targeting a multi-phase multi-million pound retrofit of our extensive estate in the coming years.
- The delivery of a LED Streetlighting project reducing our total organisational carbon emissions by 6% (ongoing)
- A full review of our land to identify opportunities for grid scale renewable energy installations and EV rapid charging sites.
- The completion of a schools engagement project demonstrating innovative software developed in co-operation with a local tech start up
- The installation of advanced water monitoring equipment which allows the rapid detection or wastage with rapid return on investment
- The introduction of electric vehicles into our fleet and the installation of EV change points for fleet usage

The carbon management programme will be closely integrated with the councils Strategic Asset Management Plan and Medium Term Financial Planning.

The Council's structure and new carbon management board will ensure a robust governance arrangement for the management of the carbon reduction programme, including a range of integrated professional disciplines. Discussion of key issues and policy development is managed through the Corporate Strategy and Asset management Group, involving senior managers of all council service areas.

# **Financial Summary**

	Year 1 (Current)	Year 2	Year 3	Ongoing	Notes including budgets heads affected
	£	£	£	£	
Costs (Income)					
Net Costs (Savings)					
Net Impact on Budget					

Each carbon reduction measure will be assessed on its own carbon and financial merits. The budgets affected will come under the heading of utilities; there may also be revenue generation and potential revenue and capital savings relating to assets. The specific affects of each measure will be identified in each business case.

#### **Risks**

Risk	Impact of Risk if it occurs* (H/M/L)	Probability of risk occurring (H/M/L)	What is the Council doing or what has it done to avoid the risk or reduce its effect	Who is responsible for dealing with the risk?
There is insufficient organisation buy-in to the carbon management plan targets and objectives	M	M	The plan will be communicated widely and supported at the highest level to ensure that all senior managers understand and support the plan and its objectives.	NCC
Resource to deliver the plan is restricted or access to capital is prevented.	Н	L	The council has invested in an Energy & Sustainability Manager and now a further two project based post's on an invest to save basis for the next three years. Access to loan capital has been and must continue to be available at all times for the programme to continue at pace.	NCC
Service requirements will change over the course of the lifetime of the Carbon Management Plan	M	Н	The plan sets out interim monitoring and reporting periods so that the programme can be updated and remain fit for purpose. However the goal of become a carbon neutral organisation by 2030 will not be compromised.	CSAMG NCC

#### **Links to Council Policies and Priorities**

- NCC Corporate Plan 2017-2022
- Medium Term Revenue Plan (MTRP)
- Service Plans
- Strategic Equalities Plan

# **Options Available and considered**

- 1. Take no action and do not adopt the Carbon Management Plan
- 2. To adopt the Carbon Management Plan

# **Preferred Option and Why**

Option 2 - To adopt the Carbon Management Plan attached to this report.

This will provide a consistent framework to further develop an extensive carbon reduction programme and deliver long-term sustainable environmental and financial benefits.

#### **Comments of Chief Financial Officer**

The delivery of the Carbon Management Plan will require investment from the Council and each project will be assessed to evaluate the costs / benefit of delivering the scheme. As the plan states, each project should make an appropriate saving/ financial return to justify the investment though some projects may give rise to a net cost for the Council.

The Council should look to secure external funding where available to assist in the delivery of the plan, including Welsh Government grants and other grants that may be available such as those being used to deliver the Electric Vehicle charging points.

#### **Comments of Monitoring Officer**

There are no specific legal issues arising from the Report. The proposed Carbon Management Plan is in accordance with the statutory requirements of the UK Climate Change Act 2008 and the Environment Act (Wales) 2016 and is consistent with the Council's sustainability and well-being objectives. The policy document will provide a framework for the delivery of Council initiatives and projects which will help to reduce carbon emissions in line with legislative commitments. Any specific legal issues arising from individual initiatives and projects within the Plan will be addressed as part of the delivery process.

#### **Comments of Head of People and Business Change**

The report seeks approval for the Carbon Management Plan to be adopted as a policy of Newport City Council. As such it strengthens an organisational wide approach to sustainability, both environmentally and financially, whilst considering the impacts on future generations. As such it fully supports the Council's well-being objectives and its shared responsibilities with other statutory partners, as defined within the Well-Being Plan for Newport.

There are no, specific HR impacts as a result of this report.

#### **Comments of Non-Executive Members**

#### Councillor C Evans:

Last year, I suggested and asked this administration, in several 'questions at any time' to urgently publish a 'carbon Reduction Plan' even including examples of plans produced by other councils, the replies were vague in my view, when we look at it 'in the whole' and non-committal to say the least, to refresh our memories, here's a question I asked in July and 'reply':

Councillor C. Evans asked: Can you update us on your administration's carbon reduction plans? Will you commit, as many other councils have done, to Newport becoming carbon neutral by 2030 and thereby potentially limiting global warming to 1.5 degrees? Councillor Whitcutt responded: The Local Government Association has declared a climate emergency at the recent annual LGA. The motion supported the principle that all levels of government must work together to successfully implement the United Nation's Sustainable Development Goals.

#### The Association's motion:

- Calls upon Her Majesty's Government to explore supporting domestic implementation of the Sustainable Development Goals through funded partnership roles within each local authority area; and
- Encourages councils to continue their work on linking their local priorities with the overall ambitions of the SDGs
- Declares a 'Climate Emergency', and commits to supporting councils in their work to tackle climate change by providing a strong unified voice for councils in lobbying for support to address this emergency, and sharing best practice across all councils

With regards to mitigating the Council's own (direct) impact on the climate, we have an ongoing programme of carbon reduction activities and projects. Our long-term approach will be published in our first Carbon Management Plan which is currently in review.

#### **Public**

Declaring emergencies is fine but 'we are in an CRISIS, to quote 'we do not have it under control, we can fix things, but unless we recognise the failure of our whole system, which includes investments we will not have a chance, now is not the time to speak politely, we have to stop our emissions of greenhouse gases, either we do that or we don't, they suggest nothing is simply, that is potentially dangerous, either we reduce CO2 emissions or we don't' Whilst I welcome the 'beginnings' of a strategy now being produced it's a small step in the right direction, the plans just don't go far enough and one must wonder why it took so long to produce? I've attached a 'comprehensive' what I would call real strategy produced by another council, in, 2016!! 4 years ago!!!! . kids get it, it's about choice, there are no grey errors when it comes to survival, we have a choice, let's play our part in safe guarding the living conditions for future generations.

I suggest as well as adopting more radical policies to address the crisis we also set up, as a matter of urgency, a cross party scrutiny committee (unpaid) to monitor the councils progress towards zero emissions, another idea I suggested several months ago, which was dismissed at the time.

#### Response from Cabinet Members:

Thank you for your response to the consultation on the Carbon Management Plan and the level of interest you have shown, the Head of legal has confirmed that this is an operational question and thus can be answered by myself as Head of service.

The Council takes very seriously its responsibility to future generations, the climate crisis and the commitment that will be required to tackle this complex and long term challenge for Newport and Wales. In keeping with this, the authority has recently published its Carbon Management Plan which is a public commitment to lead by example and achieve an ambitious target. In 2017, the administration invested in a dedicated post to tackle carbon reduction, a further two posts were added in 2019.

The development of these posts in turn has seen significant steps forward in this area which include

- A reduction in direct carbon emissions of 18% in 2018/19 vs 2016/17
- Converting ~18.500 streetlights to LED which will reduce our direct carbon emissions by a further 6%
- Developed proposals for a ground mounted solar PV system which when implemented will generate the equivalent of 10% of our annual electricity usage and reduce our total direct emissions by 4.5% per year
- Working with a community energy group to install 6,500 solar panels on or buildings in 2020 which will reduce our total direct emissions by 3%
- Committed to deliver a large scale programme of energy efficiency works in building which will reduce direct emissions by 3% per phase
- Installing LED lighting in our buildings
- Continued and improved the efficiency of day-to-day utility usage in our buildings
- Investment in automatic meter reading technology to reduce water consumption across the estate
- Implementing electric vehicles and charge points within our fleet
- Significantly reducing staff grey mileage via a robust staff travel policy
- Implementing electric vehicle charge points for residents
- Working with BEIS to undertake heat network studies within the city
- Working with Welsh Government to develop Arbed-am-byth schemes for residents
- A range of measures to tackle air quality in the city as published in our air quality progress report

Although these steps have had a significant impact, the authority felt greater strategic direction was needed, which has led to the creation of a cabinet member post (December 2019) who will take direct responsibility for sustainability and climate change – this cabinet member role is in place to have the exact impact that you suggest is required and we welcome all councillors to be involved in this difficult but exciting challenge for the future.

#### **Equalities Impact Assessment and the Equalities Act 2010**

The Equality Act 2010 contains a Public Sector Equality Duty which came into force on 06 April 2011.

The Act identifies a number of 'protected characteristics', namely age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; sexual orientation; marriage and civil partnership.

The single duty aims to integrate consideration of equality and good relations into the regular business of public authorities. Compliance with the duty is a legal obligation and is intended to result in better informed decision-making and policy development and services that are more effective for users.

In exercising its functions, the Council must have due regard to the need to: eliminate unlawful discrimination, harassment, victimisation and other conduct that is prohibited by the Act; advance equality of opportunity between persons who share a protected characteristic and those who do not; and foster good relations between persons who share a protected characteristic and those who do not.

The Act is not overly prescriptive about the approach a public authority should take to ensure due regard, although it does set out that due regard to advancing equality involves: removing or minimising disadvantages suffered by people due to their protected characteristics; taking steps to meet the needs of people from protected groups where these differ from the need of other people; and encouraging people from protected groups to participate in public life or in other activities where their participation is disproportionately low.

#### **Children and Families (Wales) Measure**

Although no targeted consultation takes place specifically aimed at children and young people, consultation on planning applications and appeals is open to all of our citizens regardless of their age. Depending on the scale of the proposed development, applications are publicised via letters to neighbouring occupiers, site notices, press notices and/or social media. People replying to consultations are not required to provide their age or any other personal data, and therefore this data is not held or recorded in any way, and responses are not separated out by age.

#### Wellbeing of Future Generations (Wales) Act 2015

The Carbon Management Plan covers the period April 2018 to March 2022 and sets out the vision of how Newport city Council will reduce carbon emissions. Many differing decisions will be taken in relation of carbon management during this period.

Each decision taken as part of the Carbon Management Plan will follow the five ways of working principles set out in the guidance for compliance with the Wellbeing of Future Generations (Wales) Act 2015.

Discussion on each scheme and how the five ways of working impact upon the decision to be taken can form part of the overall scheme approval and monitoring within carbon reduction programme board and the Capital Strategy and Asset Management Group.

#### **Crime and Disorder Act 1998**

Section 17(1) of the Crime and Disorder Act 1998 imposes a duty on the Local Authority to exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent, crime and disorder in its area.

#### **Background Papers**

Carbon Management Plan for direct Carbon Emissions (August 2019)

Dated: 27 December 2019



Carbon Management Plan 2018 – 2022
Release: Draft
Date:
Author: Ross Cudlipp
Owner:
Document Ref:
Version No:

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#### 1 Foreword

I am pleased to present Newport City Council's Carbon Management Plan.

There is an urgent need for the world to decarbonise if we are to limit global temperature rise to 1.5C above pre-industrial levels and avert the worst impacts of climate change. As a globally responsible organisation, the council aims to show leadership in decarbonisation and work with others to do the same for the benefit of our city, country and the planet.

We are facing very challenging times in local government, with decreasing budgets and increasing demands for services which are being addressed within a weak economy at national and local level. The need has never been greater to improve operational efficiency and financial performance. Investing in carbon reduction schemes will deliver long-term sustainable savings while also improving resilience and environmental impact. Every pound saved is a pound available to invest in services.

This plan sets out the council's vision, mission, objectives and strategy for carbon reduction from 2018 until 2022 and beyond.

I will continue to work closely with the community, partner organisations, elected members and officers to ensure the council continues to work towards our challenging but exciting and achievable vision of becoming a net carbon neutral organisation by 2030.

#### **Councillor Davies**

Cabinet Member for Sustainable Development

# 2 Introduction

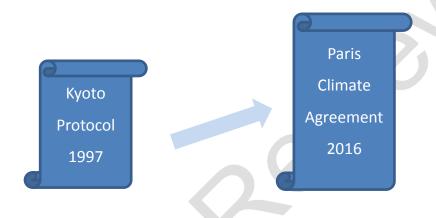
Greenhouse gas<sup>1</sup> emissions are driving man made climate change. A changing climate will have significant impact on the way we live with far-reaching consequences. It is globally recognised that there is an urgent need to reduce carbon emissions to limit the impact we have on the planet's environment. This document outlines how Newport City Council intends to reduce our own carbon emissions while supporting the city to do the same.

<sup>&</sup>lt;sup>1</sup> Hereafter referenced as carbon emissions (equivalent) or CO2e.

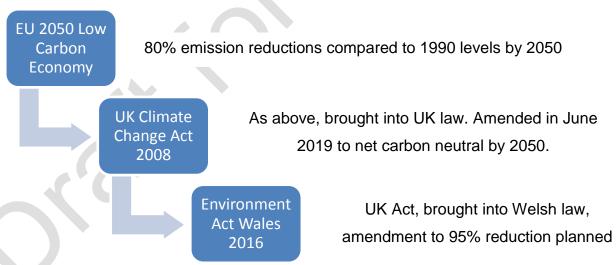
#### 3 Context

The Carbon Management Plan has been developed in line with the following international and national legislation and organisational context.

# **International Agreements**



# **Legislation**



#### **Ambitions**



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The Environment Act Wales (2016) legislates for an 80 per cent reduction in emissions from 1990 levels by 2050 as a minimum requirement. In June 2019, the Welsh Government announced plans to increase this target to a 95 per cent reduction by 2050. These national targets will driver local and organisational targets.

# The Well-being of Future Generations Act (2015)

This Act is about improving the social, economic, environmental and cultural well-being of Wales. The act of law requires, for the first time, that public bodies listed in the Act must do what they do in a sustainable way. The sustainable development principle of the Act consists of five ways of working that public bodies are required to take in to account when applying sustainable development. These are:

- Considering the *long-term* so that the ability of future generations to meet their own needs is not compromised;
- Understanding the root causes of issues to prevent them from occurring;
- Taking an *integrated* approach so that public bodies look at all the well-being goals when decision making;
- Working with others in a *collaborative* way to find sustainable solutions;
- *Involving* a diversity of the population in the decisions that affect them.

Carbon reduction requires a long-term and a preventative approach to reduce pollution. It also needs an integrated approach that supports a number of the well-being goals, namely *Prosperous Wales, Globally Responsible Wales, A Healthier Wales* and *A Resilient Wales*, and does not adversely affect any of the other well-being goals. The council is working on carbon reduction with partners in a collaborative way through the Public Services Board, One Newport, and the implementation of the Local Well-being Plan.

#### Organisational Context

The council is committed to decarbonisation. In addition to the significant external drivers, it recognises the benefit to both the organisation and the City of Newport. Decarbonising brings environmental benefits and ongoing financial benefits which will help the council, and therefore the city, to become more sustainable in the long-term.

This Carbon Management Plan supports *Objective 4 – Modernised Council* in the regeneration, investments and housing service plan 2018-2022. It is strongly linked with the strategic asset management plan 2018-2022 that lays out the strategy for the buildings in the council's estate. As three quarters of the council's carbon emissions are due to utility consumption in buildings, the strategy for reducing carbon emissions is intrinsically linked to the estate management strategy.

As part of showing the council's commitment to decarbonisation, it has signed up to the UK100 pledge with the aim of using 100 per cent clean energy by 2050. The organisation already purchases 100 per cent renewable electricity and, as laid out below, is considering options to reduce usage and generate more of its own electricity, as well as using renewable energy to power its vehicles.

The council is guided by the ambition from the Welsh Government for the Welsh public sector to be net carbon neutral by 2030 and is working within the context of the Well-being of Future Generations Act to achieve this.

#### 4 Emission baseline

In order to understand more about the council's carbon emissions and develop a plan, analysis was undertaken to establish an emissions baseline and breakdown of emissions per function. This information can be used to target emissions reduction projects and track progress. Details of the scope of emissions can be seen below.

# 4.1 Emissions Scope

The reporting of greenhouse gas emissions falls into well-defined categories:

Scope 1: Direct – estates and council-owned vehicles

Scope 2: Indirect – purchased energy for organisational use

Scope 3: Indirect – all other activities and supply chain.

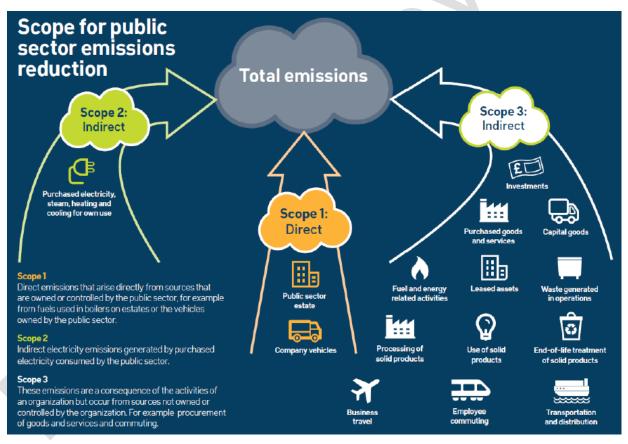


Figure 1: Explanation of Emission Scopes

The council's carbon management plan 2018-2022, will focus primarily on:

Scope 1 - Direct: The council can have most direct influence in the area,

success in the organisation will allow us to build a base

from which to support others.

Scope 2 – Indirect: Emissions per unit from the consumption of electricity and

other fuels are externally dictated and changes are

outside of the council's control but will affect our reported

emissions. However, every opportunity will be taken to reduce the consumption which should reduce overall

reported emissions.

Scope 3 – Indirect: Opportunities to make improvements will be taken, where

suitable, although they will not be the focus of the

council's activities for its present CMP. Nevertheless,

planned council activities such as reducing business

travel and supporting active travel will make a

contribution towards decarbonisation. Welsh Government

is expected to drive improvements in the supply chain

through procurement policy.

The Welsh Government's support for the public sector to decarbonise is currently focused on Scope 1 and Scope 2 emissions. The council's carbon management plan 2018-2022 is also focused in these areas.

At the time of writing, the Welsh Government is planning to implement further reporting requirements and standards for the Welsh public sector which are likely to incorporate some scope 3 emissions. This is likely to come into effect in 2021.

#### 4.2 Baseline

The carbon management plan has taken the financial year 2017/18 as its baseline:

- The source data is the council's carbon reduction commitment reporting data and purchased liquid fuel volumes
- The reporting measurement unit is tonnes of carbon dioxide equivalent tCO<sub>2</sub>e.
- The conversion units used to calculate emissions are the Department for Energy and Climate Change greenhouse gas emission factors 2017<sup>2</sup>
- Electricity is broken down into two categories, the first being all buildings
  where the council pays the utility bills and all electrical supplies which feed onstreet equipment, pumping stations and similar locations. The second
  category is unmetered street lighting assets.

The data for the baseline year is as follows:

**Table 1: Carbon Emission Baseline** 

Newport City Council - Carbon Emissions 2017/18						
Fuel	Emissions Scope	Value	Unit	Tonnes CO₂e / Unit	tonnes CO₂e	
Electricity (Buildings+)	2	16,389,656	kWh	0.000352	5,762	
Electricity (Streetlighting)	2	7,387,918	kWh	0.000352	2,597	
Natural Gas	1	35,247,505	kWh	0.000184	6,491	
Gas Oil	1	183,492	Litres	0.002954	542	
Propane	1	5,823	Litres	0.001508	9	
Diesel	1	652,094	Litres	0.002600	1,696	
Petrol	1	20,800	Litres	0.002197	46	
			Scope	e 1 Total	8,783	
			Scope	e 2 Total	8,359	
			Grar	nd Total	17,142	

The baseline of 17,142 tonnes CO<sub>2e</sub> will be used to measure the council's future performance.

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<sup>&</sup>lt;sup>2</sup> https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2017

# 4.3 Analysis

# **Tonnes CO2e by Source** Petrol, 46, 0% Diesel, 1,696, 10% Propane, 9, 0% Gas Oil, 542, 3% Electricity (Buildings+), ■ Electricity 5,762, 34% (Buildings+) ■ Electricity (Streetlighting) ■ Natural Gas ■ Gas Oil ■ Propane Diesel Petrol Natural Gas, 6,491, 38% Electricity (Streetlighting), 2,597,

Figure 2: Breakdown of Carbon Emissions by Fuel

The chart highlights the fuels that contribute most to our overall emissions; electricity at 49 per cent, natural gas at 38 per cent and diesel for vehicle and plant operation at 10 per cent.

Further estate-wide data analysis and benchmarking has been undertaken and will inform internal project choices.

# 5 Carbon Management Plan

#### 5.1 Vision

Newport City Council to be net carbon neutral by 2030<sup>3</sup>.

#### 5.2 Mission

To be a locally and globally responsible organisation by decarbonising our buildings, fleet, and operations while reducing our costs and environmental impact for the benefit of future generations.

# 5.3 Objectives

The council will:

Reduce total carbon emissions in the shortest possible timeframe

Make our buildings more energy efficient and improve user comfort

Reduce our total energy demand and dependance on imported energy through the use of on-site renewable energy generation

Reduce our business travel, fuel consumption and transisition our fleet to electric or alternatively fuelled vehicles

Where opportunities arise, engage with and support external organisations working to reduce carbon emissions in the Newport area

Figure 3: Carbon Reduction Objectives

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<sup>&</sup>lt;sup>3</sup> The net balance of Scope 1 and 2 emissions

# 5.4 Targets

The council aspires to achieve the following targets:

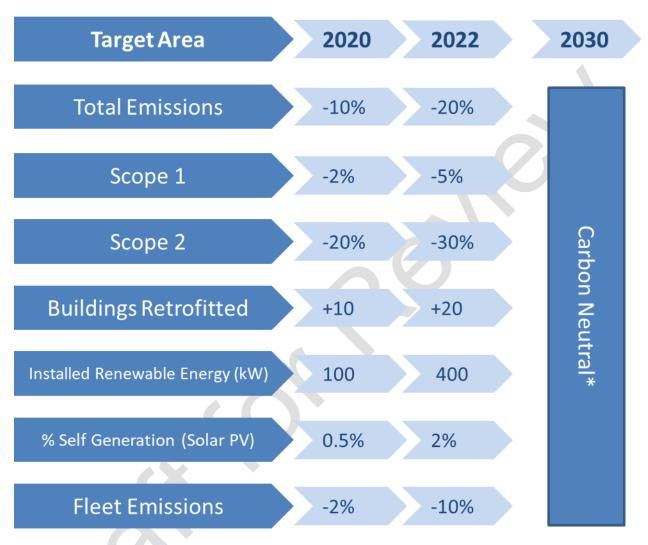


Figure 4: Carbon Reduction Targets

The above targets are designed to give a breadth of drivers to support carbon reduction activities, they cover building heating fuels, electricity consumption/generation and fleet fuel consumption / source. The targets are ambitious but achievable.

\* The exact targets required as part of becoming carbon neutral by 2030 will be reviewed and set as part of the 2022-2026 carbon management plan. An interim

monitoring report will be produced in 2020 to track progress within the current plan period.

# 5.5 Strategies

In order to work towards achieving the council's stated objectives and targets, specific strategies will be developed for each source of emissions. The broad basis for these strategies is as follows:

#### 5.5.1 LED Street Lighting

The implementation of LED street lighting is a priority due to the ability to deliver carbon and cost savings in a relatively short timeframe. In recent years, the council has taken steps to reduce the carbon emissions of street lighting via measures such as implementing part-night operation of selected streetlights. In addition, when an older light reached the end of it's a more efficient LED replacement would be installed life which resulted in the installation of around 2,900 high efficiency LED lights which saved, on average, 60 per cent on electricity, cost and carbon compared with those being replaced.

In 2019 a project was started to change all remaining street lights to LED by March 2020. This will deliver carbon savings of 1,050 tCO2/yr or 6 per cent from the 2017/18 baseline.

#### 5.5.2 Energy efficiency in buildings

Three quarters of the council's direct emissions are a result of consumption within its buildings so these offer the greatest potential for emission reduction in the long-term.

A desktop study looked at the energy saving potential of implementing three simple measures across our estate (including the implementation of LED lighting). Potential savings are estimated to be significant as a proportion of our total carbon emissions. The study aimed to give an initial indication and did not include site visits and all possible energy saving measures, further feasibility work is required to establish exact figures.

Further work is now being undertaken to establish the emission reduction potential within the council's building estate and it is anticipated the first major works will be completed by the end of 2020.

#### 5.5.3 Solar PV

The strategy will be to implement solar PV on council-owned buildings wherever viable. Building-mounted Solar PV is the principle way in which the council can generate zero carbon electricity for use in its own buildings. A small number of building-mounted solar PV installations are currently in place which generate electricity equivalent to less than 0.5% per cent of the council's total electricity consumption.

Due to the number of buildings that the council owns and operates, a significant proportion of its electricity could be generated on-site. A high-level desktop study undertaken in the summer of 2018 indicated that there could be the potential to generate the equivalent of one fifth of its total electricity consumption if solar PV installations sized at just 10 per cent of building floor area were installed on each building.

Though there are constraints to installation many sites and detailed feasibility is required, the council will endeavour to maximise the potential for solar PV installations across the estate, both on new and existing buildings as it works towards the maximising the proportion of consumed electricity from its own renewable electricity generation.

The Welsh Government has set out the ambition for 70 per cent of the electricity consumed in Wales to be generated from renewable sources by 2030. In order to help achieve this goal, local authorities are being supported to identify potential sites within their estates for grid scale renewable energy installation and the council is engaging fully with this. Due to their potential scale, ground-mounted solar PV installations have the ability to significantly reduce the council's overall emissions

and provide other opportunities for carbon reduction and revenue generation. The council is currently progressing towards a planning application on a grid scale solar PV farm which if developed would provide a revenue stream and contribute significantly towards the objectives and targets within this plan.

#### 5.5.4 Transport fleet and equipment

Fuel use from owned and or operated vehicles and plant currently represents 10 per cent of -the council's direct carbon emissions. The strategy to reduce these emissions should be as follows:

- 1. Provide options for active travel and attempt to reduce vehicle mileage
- 2. Implement zero emission vehicles, plant and equipment
- 3. Implement more efficient vehicles and driving

At the time of preparing this report, the council had two electric cars for staff use and further electric vehicles scheduled for delivery. The council will develop a plan to meet the One Newport Public Services Board target of at least 10 per cent of its fleet to be zero emission in the next five years, however, as per the targets set out above the focus will be on -reducing fleet emissions overall which can only be done by reducing or displacing fuel consumption.

# 5.6 Financing

For the duration of this plan all carbon reduction initiatives will be funded on an invest to save basis using low and interest free borrowing available to the council. All projects must show a financial return on investment as well as a carbon (or water) reduction. The council will commit to continue to make funding available to fund the implementation of viable schemes to ensure the agreed targets and objectives set out above are met.

Projects will be prioritised for implementation principally taking into consideration: carbon benefit, revenue benefit and complexity of delivery.

# 5.7 Embedding carbon reduction across the Council

Carbon reduction is the responsibility of all elected councillors, members of staff and users of our estate. Therefore, the council will work to embed a culture of carbon reduction across the organisation via communication and engagement with staff and through the development of policies in support of this carbon management plan. By 2020 the council will:

- 1) Update and re-implement an energy policy within the estate
- 2) Put forward a more detailed carbon reduction implementation plant

# 5.8 Review and Reporting

Progress against the council's stated objectives and targets will be monitored through regular meetings of the carbon reduction steering group involving the stakeholders integral to the success of the plan and its goals. A full governance structure can be found in the appendices of this document. Progress against the plan will be reported on an annual basis from summer 2020 and the plan will be renewed in 2022.

Future reporting structure:

Baseline	Plan period 1 – 2018 - 2022				
	NA	Interim	Annual	Period end	
2017-18	2018-19	2019-20	2020-21	2021-22	

Plan period 2 – 2022 - 2026						
Annual	Interim	Annual	Period end			
2022-23	2023-24	2024-25	2025-26			

	2030			
Annual	Interim	Annual	Period end	Net Carbon
2026-27	2027-28	2028-29	2029-30	Neutral

