

Babergh and Mid Suffolk District Councils' Climate Change Commitment Report

A Review of Annual Greenhouse Gas Reporting, Benchmarking of Babergh and Mid Suffolk District Councils Properties and Zero Carbon Strategy Development

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March 2020

on behalf of Babergh and Mid Suffolk District Councils





'Cities and local authorities are well placed to understand the needs and opportunities in their local area ...

They have important roles on transport planning, including providing high-quality infrastructure for walking and cycling, provision of charging infrastructure for electric vehicles, and ensuring that new housing developments are designed for access to public transport.

They can improve health outcomes for people who live and work in the area by implementing clean-air zones that discourage use of polluting vehicles and other technologies.'

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1. Executive Summary

At Full Council meetings on 23rd July and Thursday 25th July 2019, Babergh and Mid Suffolk District Councils recognised the existence of a **'climate emergency'** and committed to investigate ways in which Babergh and Mid Suffolk District Councils (including all buildings and services) can support Suffolk's county-wide aim to become **carbon neutral by 2030**.¹

Babergh and Mid Suffolk District Councils have jointly reported their greenhouse gases (GHG) for the period 2018/19 following the principles of the Greenhouse Gas Protocol, an internationally recognised standard for corporate accounting and reporting and the UK Government's 'Environmental Reporting Guidelines'.

A number of recommendations are made to improve the Council's future GHG reporting.

Based on the data provided by the Councils for this review, Babergh and Mid Suffolk District Councils' **Carbon Footprint** for the annual period 2018/2019 was **5,452 tonnes of carbon dioxide equivalent** (tCO₂e).

Due to significant changes within the structure of the Councils, including the move to occupy the Endeavour House offices, it is not possible to compare 2018/2019 with previous GHG reports.

This report considers the emissions of the **vehicle fleet, business mileage, building infrastructure**, and **renewable energy generation**. It then goes on to outline the actions that Babergh and Mid Suffolk District Councils could consider in order to reach their target of zero net carbon by 2030.

Whilst this report focuses on Babergh and Mid Suffolk District Councils' own direct carbon footprint, their roles as community leaders, major employers, large-scale procurers and social landlords mean that action on climate change can deliver many local benefits, including lower energy bills, economic regeneration and creation of local jobs, reductions in fuel poverty, and improved air quality. By showcasing the wider benefits achieved by acting on climate change, Babergh and Mid Suffolk District Councils can expect this to act as a catalyst for influencing behaviour change across their district areas.

The reported carbon emissions for each building identified by the Councils have been measured against recognised **benchmark figures** for comparable buildings in order to report on the estimated efficiency of each. This report includes **recommendations** that may **reduce** the associated **emissions** of the properties and potential opportunities to invest in **renewable energy** generation and **offsetting**.

The range of actions investigated are outlined in Figure 1 below.

¹ www.midsuffolk.gov.uk/news/Councils-support-2030-carbon-neutral-ambitions/

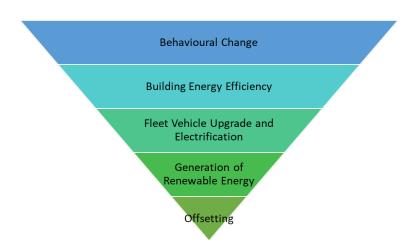


Figure 1: Pathway to Net Zero Emissions

This report outlines the **key priorities for reducing Babergh and Mid Suffolk District Councils' Greenhouse Gas Emissions,** which are summarised in Table 1, **indicating associated financial cost** where possible to inform decision-making.

Based purely on the potential carbon savings associated with these actions, Babergh and Mid Suffolk District Councils would be able to become carbon neutral by 2030. Whether this can be achieved rests upon the financial resources and political will available.

Table 1: Summary of Actions Recommended for Further Investigation and Associated Emissions Reductions

Section of this Report	Action Recommended for Further Investigation	Annual Carbon Saving (as percentage of 2018/19 carbon footprint)
3.0	Ensure Priority Properties Achieve 'Good' Energy Efficiency Rating	-16%
<u>4.1</u>	Install Solar PV on Council Buildings	-2%
<u>4.2</u>	Install Solar PV on Council Housing Stock	n/a
<u>4.3</u>	Install Solar PV Carports	tbd
<u>4.4</u>	Install Large Scale Ground Mounted Solar Farm	tbd
<u>4.5</u>	Minimise Fleet Emissions Through Behavioural Change	-2%
<u>4.6</u>	Switch to biodiesel for 38 vehicles	-26%
<u>4.6</u>	Upgrade Entire Remaining Fleet to either Electric or alternative fuel	tbd
<u>4.7</u>	Reduce Business Mileage	-0.3%
<u>5.0</u>	Switch to Renewable Electricity and Gas Supply	-55%
<u>6.0</u>	Carbon Offsetting of Remaining Emissions	tbd

2. Overarching Performance Statement 2016-2019

2.1 Background to this Report

Local authorities in England have been requested by Government to measure and report annually upon the greenhouse gas emissions arising from their own activities. Babergh and Mid Suffolk District Councils have previously been reporting individually since 01 April 2009, however for their 2013/14 report, the two Councils moved away from this reporting method, as they had a new single staffing structure, and a joint reporting approach was introduced. The complexities associated with joint reporting has meant that since 2015, Babergh and Mid Suffolk District Councils have not been producing annual greenhouse gas reports until 2018/19. Babergh and Mid Suffolk District Councils' 2018/19 greenhouse gas report, therefore, has become their new baseline year against which future reports will be measured.

In addition to this, Babergh and Mid Suffolk District Councils are currently investigating how they can achieve their target of becoming carbon neutral by 2030. The first step towards achieving this is to ensure that existing monitoring and reporting systems are working effectively.

This desk-based review and the associated report have been undertaken by Groundwork Suffolk in order to independently assess and quantify progress to date where possible and to help guide the process of both Babergh and Mid Suffolk District Councils becoming net zero carbon by 2030.

To do so, benchmarking of the Councils' properties has been carried out to identify areas of good practice, as well as those sites which should be prioritised for action. Opportunities for reducing the Councils' other carbon emissions have also been investigated, and the costs and benefits of doing so highlighted.

2.2 Emissions Statement

Based on the data provided in the GHG Reports and supporting data, Babergh and Mid Suffolk District Councils' Carbon Footprint for the annual period 2018/2019 has been calculated to be 5,452tCO₂e (Table 2 and Figure 2).

Table 2: Babergh and Mid Suffolk District Councils' Emissions Statement for 2018/2019

	2018/19
Scope 1 (Fleet)	395
Scope 1 (Heating oil)	34
Scope 1 (Natural gas)	879
Scope 2 (Electricity)	654
Scope 3 (Mileage)	1,582
Scope 3 (Electricity)	661
Scope 3 (Natural gas)	1,247
Total (tCO₂e)	5,452

² H.M. Government Environmental Reporting Guidelines assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/791529/Env-

assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file//91529/Env-reporting-guidance_inc_SECR_31March.pdf

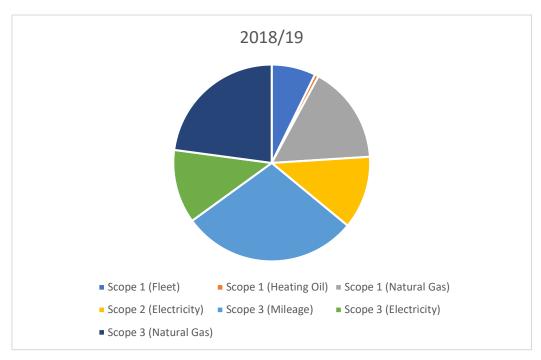


Figure 2: Breakdown of Emissions Statement

2.3 Analysis of Trends

Over the years, GHG emissions arising from Babergh and Mid Suffolk District Councils' joint organisational activities have decreased by 14.1% between 2013/14 and 2018/19 (Figure 3). It must be noted though that due to significant organisational changes, this is for illustrative purposes only, and the consistency between the reports cannot be guaranteed.

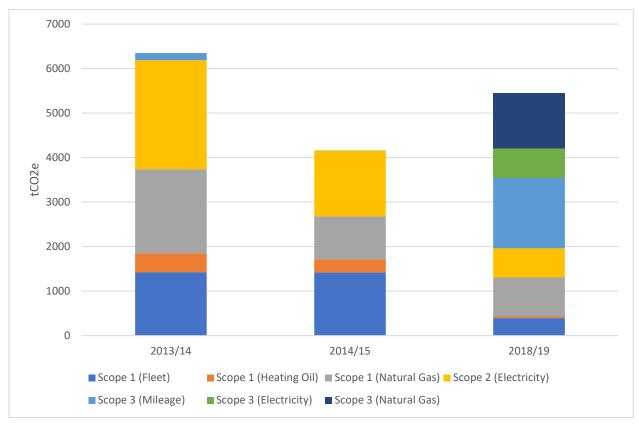


Figure 3: Babergh and Mid Suffolk District Councils Breakdown of Emissions Over 3 Annual Periods

Scope 3 emissions for the year 2018/19 were significantly higher than in previous years, highlighting the need for caution when making direct comparisons between the years. It is believed that this is due to the changing organisational structure and the inclusion of four leisure centres and three waste depots within the scope of the GHG report.

2.4 Achievements

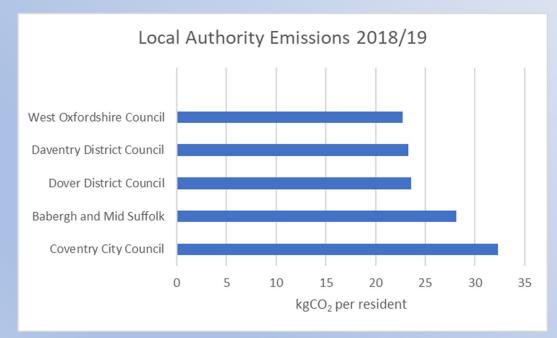
As previously mentioned, there are inconsistencies within Babergh and Mid Suffolk District Councils' GHG data between the reporting years which means it is not possible to make meaningful comparisons. However, Babergh and Mid Suffolk District Councils have undertaken carbon reduction projects including a major refurbishment programme for their sheltered housing schemes which has included the installation of air source heat pumps, solar PV systems, and LED lighting upgrades.



How Do Babergh and Mid Suffolk District Councils Compare?

Although local authorities in England were requested by Government in 2011 to measure and report annually upon the greenhouse gas emissions arising from their own activities, not all local authorities are currently doing so.

Authorities differ significantly in size, geography and responsibilities so comparisons may be misleading, however, the chart below provides a **snap shot** of how Babergh and Mid Suffolk District Councils' carbon footprint per resident **compares** with some other English Authorities.



Local Authority	GHG Emissions	Population	kgCO₂e/resident /year
West Oxfordshire Council	2,477 tCO ₂ e (2018/19)	109,300	22.7
Daventry District Council	1,837 tCO ₂ e (2018/19)	79,000	23.3
Dover District Council	2,669 tCO ₂ e (2018/19)	113,100	23.6
Babergh and Mid Suffolk	5,452 tCO ₂ e (2018/19)	193,894	28.11
Coventry City Council	11,646 tCO ₂ e (2018/19)	360,100	32.3

2.5 Existing Reporting Procedures

The GHG Reports produced by Babergh and Mid Suffolk District Councils follow the principles of the GHG Protocol, an internationally recognised standard for corporate accounting and reporting of greenhouse gas emissions.

Under the protocol all six greenhouse gases are taken into consideration namely, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF_6) and are reported collectively in terms of tonnes of carbon dioxide equivalent (tCO_2e).

From Babergh and Mid Suffolk District Councils' 2018/19 greenhouse gas report their three scopes are defined as:

Scope	
1	These are emissions from fuels that the Councils directly consume e.g. gas, diesel,
1	petrol in the direct delivery of Council business by Council employees.
2	These are indirect emissions such as electricity consumed in Council premises.
2	These are emissions derived from third party contractors providing services on behalf
3	of the Councils.

From looking only at the report, it is unclear as to specifically what has and hasn't been included within each scope, leading to some uncertainty. For example, it is unclear whether business travel by employees using their own vehicles has been included in scope 1 or scope 3. It is only when the raw data is looked at that there is a clear division of what has an hasn't been included within each scope. As the public would not have access to the raw data, it is recommended that a more detailed breakdown of the scopes is included within the public report, to improve clarity and transparency.

The following table is an example from Surrey County Council's Greenhouse Gas Report 2018/19 and is a good template to use when reporting emissions to ensure absolute clarity.

Table 4: Screenshot of Surrey County Council's breakdown of GHG emissions³.

Reporting period 2018/19	Units	Amount consumed	Greenhouse gas emissions (tonnes CO ₂ e)				
Scope 1							
Oil boilers ¹	kwh	672,233	186				
Gas boilers ¹	kwh	68,064,965	12,521				
Wood boilers	tonnes	98	0				
Diesel	litres	327,985	862				
Petrol	litres	4.201	9				
Fugitive emissions ²	kg charge	175,369	175				
Scope 2							
Premises electricity	kwh	33,376,405	9,448				
Street lighting and other highways electricity	kwh	27,488,230	7,781				
Scope 3							
Staff and member business travel ³	miles ³	5,842,906	1,667				
T&D of premises electricity ⁴	kwh	33,376,405	805				
T&D of streetlighting and other highways electricity ⁴	kwh	27,488,230	663				
			21112				
Total gross emissions			34,118				
Carbon Offsets ⁵	kwh	n/a	n/a				
Green tariff ⁶	kwh	n/a	n/a				
Total net emissions	34,118						
Intensity measurements ⁷							
Tonnes of CO ₂ e per resident of Surrey	0.029						

Despite some confusion, the relevant UK government carbon conversion factors for each period have been applied to Babergh and Mid Suffolk District Councils' total energy consumption to calculate the associated emissions for all scopes.

Monitoring of consumption from individual sites and vehicles appears to be in place and the methodology for calculation of emissions appears sound, however, the significant changes made to the Councils' structure have led to the baseline year being changed to 2018/19.

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³ www.surreycc.gov.uk/ data/assets/pdf file/0011/212114/SCC-Greenhouse-Gas-Emissions-Report-2018-19.pdf

2.6 Recommended Actions for Future Babergh and Mid Suffolk District Councils' GHG Reporting

- It is recommended that future reports should also include details of the amount of solar
 PV which is being generated, used and exported from onsite installations.
- It is recommended that clarity is sought on the **role your Blue electricity tariff** plays in terms of contributing to a reduction in emissions (and consider the opportunities for dual GHG reporting to include renewable and/or low carbon energy use, as outlined in Section 5 of this report).
- There should be a **clear breakdown** of what emissions have been included and in which scope they appear.
- It is recommended that a **standardised measurement and reporting** of the operational efficiency of the Councils' buildings is introduced. For example, this could involve a target DEC rating of C or better by 2030 or meeting CIBSE 'Good' for energy consumption.
- Babergh and Mid Suffolk District Councils should consider the development of a suitable
 metric or key performance indicator which would enable meaningful comparisons
 to be made over time, as the Councils' portfolio changes over time. For example, this could be
 by employee, resident numbers or building floor areas.
- A record of **exceptional changes** to the **portfolio** content should be kept to allow for normalisation of results.
- Annual **GHG Reports should be made publicly available**, easily accessible and published on Babergh and Mid Suffolk District Councils' website.

3. Analysis of Energy Use and Benchmarking of Council Properties

Decarbonising buildings through improving the energy efficiency can also reduce their risk of overheating, which is becoming an increasing risk as heatwaves are forecast to become more frequent. A buildings' energy demand is also reduced, and improves the UK's energy security by reducing the reliance on imported energy.

3.1 Methodology

Electricity and natural gas use across Babergh and Mid Suffolk District Councils' properties accounted for 36% of GHG emissions for the year 2018/2019 and energy efficiency across these sites is therefore considered key in reaching a target of net zero carbon by 2030. For this reason, Groundwork was asked to carry out a desk-based benchmarking exercise to prioritise energy efficiency actions across Babergh and Mid Suffolk District Councils' property portfolio.

Annual electricity and natural gas consumption figures were supplied to Groundwork for each of the properties to be reviewed (these are listed in Table 5 below). The properties were benchmarked against CIBSE Energy Benchmark (TM46:2008) and ECON 78 (2001) energy benchmarks.

It is recognised that while these benchmarks remain relevant, it has been several years since they were created therefore the Ministry of Housing, Communities and Local Governments Non-Domestic Energy Performance Certificate Register was also searched to obtain Display Energy Certificates (DEC) for the properties.^{4,} These were available for most of the buildings.

By analysing energy use per usable m² for each building, and comparing this with benchmarks for the relevant property types, as well as considering the DEC for each site, Babergh and Mid Suffolk District Councils' properties have been prioritised with regards to the implementation of energy efficiency actions. Details of energy consumption and current performance for each site are included in Appendix 1.

3.2 Priority Properties for Energy Efficiency Actions

As a result of this analysis, the Councils' buildings have been prioritised based on the assumed current emissions and the potential for upgrading the building fabric and services to achieve the recommended emissions for each type and use of the facility, as shown in Table 5.

It is **recommended that each of these Priority 1 properties undergoes a detailed energy audit** to ensure assumptions relating to the energy consumption, usable floor area and opportunities for energy efficiency actions are up to date. This will also enable more accurate installation costs and anticipated savings to be calculated.

For the purposes of this report, potential carbon savings have been calculated based on the target of each Priority 1 building meeting a 'Good' as defined by CIBSE Energy Benchmark (TM46:2008) and ECON 78 (2001) energy benchmarks.

Potential carbon savings of around 894tCO₂e/year have been identified which is the equivalent to 16% of total emissions for the year 2018/2019.

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⁴ www.ndepcregister.com/reportSearchAddressByPostcode.html

Table 5: Prioritised Buildings and Potential Savings

Building	Priority	Current Emissions tCo₂e	Potential Saving tCo₂e
Kingfisher Leisure Centre	1	850.9	531
Hadleigh Leisure Centre*	1	251.1	106
Mid Suffolk Leisure Centre	2	705.0	115
Stradbroke Leisure Centre	2	173.4	142
Endeavour House**	3	144.1	
Chilton Depot***	3	23.1	
Wenham Magna Depot***	3	2.4	
Creeting Road Depot***	3	12.3	
54 Ipswich Street****			
Total			

^{*}The swimming pool at Hadleigh Leisure Centre is due to be replaced in 2020.

^{**}Endeavour House is owned by Suffolk Country Council, Babergh and Mid-Suffolk District Councils are estimated to occupy 14% of floorspace.

^{***}There are no potential CO_2e savings associated with the waste depots as benchmarking data was not available.

^{****54} Ipswich Street had no electricity or gas consumption data available for 2018/19.



Stroud District Council is the

first in the UK to claim carbon neutrality.

This has been achieved through **energy-efficiency measures and renewable-energy installations** including solar panels on all municipal buildings, secondary glazing and internal insulation on the Council's grade II-listed building, and ensuring all its electricity and heating comes from renewable sources.

By creating a local waste-management company in partnership with neighbouring authorities, it boosted its previously low recycling rates to 61% and now sends the **least** waste per capita to landfill.

In June 2019 it committed to ensuring all its own vehicles are **electric or hybrid**; making all homes (not just social housing) energy efficient; shifting to very low or zero carbon renewable electricity and heat generation; and **tree planting**. It is also seeking to significantly reduce emissions from road transport by switching to walking, cycling and **renewable-powered public transport**.

3.3 Summary of Potential Measures

Table 6 below summarises the potential measures that could be considered for each building, subject to detailed auditing and professional advice.

Table 6: Summary of Potential Energy Efficiency Measures

Building	Potential Measure						
	Energy Audit	Lighting Upgrade	Heating and Controls	Insulation	Solar Thermal	Solar PV	Onsite Monitoring
Kingfisher Leisure Centre	✓		✓	✓	✓	✓	✓
Hadleigh Leisure Centre*	✓		✓	✓	✓	✓	✓
Mid Suffolk Leisure Centre	✓	✓	✓	✓	✓	✓	✓
Stradbroke Leisure Centre	✓		✓		✓	✓	✓
Endeavour House**	✓						
Chilton Depot	✓					✓	✓
Wenham Magna Depot	✓					✓	✓
Creeting Road Depot	✓						✓
54 Ipswich Street	✓	✓	✓	✓		✓	✓

- *The swimming pool at Hadleigh Leisure Centre is due to be replaced in 2020, however it is understood that this will not include additional energy efficiency improvements to the wider leisure centre facilities.
- ** Endeavour House is owned by Suffolk County Council, therefore, Babergh and Mid Suffolk District Councils have no control. It is recommended however, that a mini energy audit be carried out to determine staff behaviours towards energy saving.

4. Additional Carbon Reduction Opportunities

The installation of solar PV provides an effective method of reducing the carbon emissions associated with the consumption of grid electricity. In addition to this, increasing the number of solar PV systems will make the energy network less vulnerable to threats, including energy supply issues.

4.1 Roof Top Solar PV

Analysis has been carried out to ascertain the potential for the **installation of roof mounted solar PV** systems across Babergh and Mid Suffolk District Councils' properties. By undertaking a desk-based survey of the properties (utilising Google Earth and street view images), the potential capacity for roof-mounted solar PV has been estimated.

It was not possible to ascertain the available roof space at the Chilton Depot and Wenham Magna Depot from the aerial imagery. However, it has been confirmed that the Councils are intending to scope out projects for ground-mounted solar PV at its Wenham Magna Depot and Creeting Road Depot, at this stage the potential size of these installations is unknown.

The analysis identified 6 buildings (as shown in Table 7) with the potential roof space for solar PV installations.

The illustration suggests that it may be **potentially possible to avoid 111tCO₂e** by generating over **500,550kWh** of electricity on the buildings, which would be either used on site or exported back into the grid (Table 7).

Whilst this analysis provides illustrations of the potential for solar PV electricity generation at each site based on the information available, there are potential constraints and it would be necessary for each site to be surveyed professionally to ascertain the suitability of the building structure for solar installation and also the optimum system size for each site based on estimated consumption on site, available roof space and connectivity to the national grid.

The greatest savings would be found by installing solar on buildings with a high electricity demand such as swimming pools.

Table 7: Estimated Potential Solar PV Generation

	Estimated Subject to Full Structural and Professional Survey and Costings						
Building	Total area available for PV (m²)	Total number of solar panels	Total system capacity (kWp)	Estimated Cost for a normal installation	Overall system output (kWh)	tCO₂e	Details
Kingfisher Leisure Centre	420	253	72	£83,034	57,946	12.8	Calculations based on solar PV installation on SW facing part of roof.
Hadleigh Leisure Centre	734	441	126	£145,112	101,268	22.4	Only the swimming pool at Hadleigh Leisure Centre is due to be replaced, therefore, calculations have still been carried out.
Mid Suffolk Leisure Centre	2,071	1,245	355	£409,438	285,730	63.2	The sports hall appears to have skylights and so has been excluded from these calculations.
Stradbroke Leisure Centre	379	228	65	£74,928	52,289	11.6	The main buildings' roof space does feature a few skylights however, it is believed that there are still opportunities for solar, using the flat roofed building at the rear and a small area under the skylights.
Endeavour House							Solar PV is already integrated into the glass atrium.
Chilton Depot							Unable to identify roof space.
Wenham Magna Depot							Unable to identify roof space. Potential for a ground- mounted solar PV system, although it is unknown what land there is available for this.
Creeting Road Depot							The roof looks to be corrugated with asbestos with a considerable amount of space occupied by sky lights which is unsuitable for solar. Potential for a ground-mounted PV system, although it is unknown what land there is available for this.
54 Ipswich Street	24	14	4	£4,745	3,311	0.7	Roof space is not ideal for solar PV, but a small mounted installation may be possible.

This potential renewable electricity generation reduces the amount of imported electricity and **could** save 2% of the Councils' total current emissions footprint of 5,452tCO₂e per year.

The generation and exporting of renewable electricity also presents the opportunity to offset carbon emissions using the dual reporting method explained in section 5.

The approximate cost shown for each installation (totalling an estimated £717,257) is based on a benchmark installed cost of £1,154 per kWp and assumes a standard installation process is possible at each site. The Councils may be able to reduce this cost through the economies of scale should they carry out a large project over multiple sites.



Bristol City Council was the <u>first local authority to</u> declare a climate emergency.

The authority committed to making the Council **carbon neutral** by 2025 and the whole city by 2030.

As part of the Council's <u>Implementation Plan</u> for direct emissions to become carbon neutral by 2025, the **energy efficiency of the Council's own buildings** will be improved, the **vehicle fleet will be electrified**, increased amounts of **renewable energy** will be generated on the Council's own land and fossil fuel "natural" gas will be replaced with **biogas, generated from food waste and sewage**.

4.2 Solar PV on Council Housing Stock

Between 2014 and 2016, Babergh and Mid Suffolk District Councils installed solar panels on around 2,150 Council-owned homes, with a combined total capacity of 5MWp. However, this does not contribute to direct offsetting targets due to the purchase transaction details.

It is unknown how many homes Babergh and Mid Suffolk District Councils own but should there be any without solar PV then it is recommended that an additional programme of works is undertaken to ensure PV is installed on all Council-owned homes. As highlighted in Babergh and Mid Suffolk Councils 2018/19 GHG report, the offsets associated with this scheme are currently claimed by the electricity companies as part of the purchase transaction, however, if Babergh and Mid Suffolk District Councils decide to use the dual reporting methodology, described in section 5, then the offsets could be claimed as part of their market based emissions.

In addition to this, Babergh and Mid Suffolk District Councils have also installed solar PV and other energy efficiency improvements across its sheltered housing schemes. It is therefore assumed that there wouldn't be any more significant savings to be achieved through the installation of additional solar PV on this housing stock.



Nottingham City Council set a target in January 2019 for the whole city to be carbon neutral by 2028.

Every new Council house built has **solar panels** while Council leaseholders have been offered discounted rates (**4,500 domestic properties** have benefitted). The local authority has also **retrofitted 400 Council properties** with energy efficiency technologies.

The Council has a target to plant at least **10,000 trees** by 2023 and is **creating bee-friendly areas** in all neighbourhoods.

It has one of the UK's largest fleets of **electric buses** and claims to have the world's largest fleet of **biogas double-decker buses**.

The waste-collection depot has **solar panels** on the roof, which charge the Council's fleet of **electric refuse vehicles** and street sweepers.

A workplace parking levy on employers providing 11 or more parking spaces for staff generates £9m a year, which is ringfenced for renewable transport schemes and has already paid for the city's new tram system. The trams are powered by the Council's not-for-profit energy company, which supplies all its electricity from renewable sources.

4.3 Solar PV Carport Opportunities

There may also be an opportunity to utilise open car parking spaces across the Councils' estate for the generation of renewable electricity, by installing solar PV panels on **purpose-built solar carports**. Babergh and Mid Suffolk District Councils are actively investigating the feasibility of solar PV car ports at their Kingfisher, Sudbury, and Stowmarket Leisure Centres. At this stage, it is unknown what the anticipated sizes of these scheme will be, or the potential carbon savings.



Aviva's Norwich office taken 'off-grid' with the installation of solar carports

The business has installed **solar car ports over 250 parking spaces** in one of its core sites in Norwich. This will generate an estimated **542,000 kWh per year**. Enough to power **138 homes** annually it is claimed, saving 171tCO₂e.



During periods of high generation Aviva's 1,000 staff on site are estimated to potentially **use 91%** of the generated electricity, with excess being sold to the grid.

Installed by **local suppliers** it includes **1,872 panels**

Each parking space is **prepared for electric vehicle chargers** to be added to meet user demand.



Exeter City Council finds a solar solution for two car parks



The installation at two of its multi-storey car parks includes **over 500 solar panels** generating **285,227 kWh** over **the top decks**, saving more than **150 tonnes CO**₂e **per year**.



Nottingham City Council takes the lead with solar carports at its Leisure Centre.



Canopies have been installed over **40 parking spaces** with **448 PV panels** generating **56,000 kWh** of electricity per year.

4.4 Large Scale Solar Farm

Babergh and Mid Suffolk District Councils could also consider investing in renewable energy generation in the form of a large-scale ground mounted **solar farm**. Energy generated through the solar installation could provide an income stream and opportunity for carbon offsetting.

Forest Heath District Council acquired a 12.4MW solar farm at Toggam Farm in Lakenheath in 2016, which, in its first year, generated 12,258MWh.



This renewable electricity, enough to power around **3,300 homes**, is sold to the National Grid. This offsets the equivalent Carbon Dioxide emissions from **1,500 cars**, a saving of around **4,300 tCO₂e/year**.

Norfolk County Council owned Scottow Enterprise Park is home to a **49.9MW solar farm** at the former RAF Coltishall airbase, which consists of almost 200,000 solar panels.



This renewable electricity, enough to power around **15,000 homes**, and will achieve savings of around **15,000 tCO**₂**e/year**.

4.5 Minimise Fleet Emissions through Behavioural Change

A large proportion of Babergh and Mid Suffolk District Councils' GHG Emissions in 2018/19 are attributable to fleet vehicles. These support the provision of housing services, street cleaning and refuse collections, car parks, park and grounds maintenance and building cleaning.

During 2012/13, all Mid Suffolk District Council and Babergh District Council employees and Councillors undertook fuel efficiency driving training. As this was a number of years ago, it is recommended that Babergh and Mid Suffolk District Councils look into providing **driver efficiency training** and installing **telematics systems** where not already installed.

4.5.1 Telematics

Telematics systems can deliver insight and information to allow informed decisions to be made in making a fleet more cost effective and efficient. A telematics system can provide an immediate and accurate view on each vehicle's data which is useful for several purposes:

- Increase fuel efficiency and reduced fuel-wasting driving habits through e.g. true engine idling reminders.
- Alerts policies and reporting on things such as; activity, engine idling, harsh driving, ignition, speeding, etc.
- Fleet Management smart scheduling, timesheets, mileage, emissions etc.
- Health and Safety compliance, improved driver safety and fleet security (asset recovery).
- Improved maintenance and asset reliability through reduced wear and tear, keeping track of service times, and monitoring asset health.
- Contributes to demonstrating the commitment to reduce carbon emissions.

There are a number of telematics systems which can be installed, depending on the individual requirements of the organisation and can be as simple as apps installed on employees' smart phones to fully integrated systems into vehicles electronics.

It is unknown whether Babergh and Mid Suffolk District Councils' fleet have telematics installed, however, average fuel savings of 5% are seen from telematics with some evidence for savings of up to 15% where systems are fully integrated into a business's structure.

The raised awareness can lead to safer and more measured driving styles and can also lead to reductions in insurance claims, prolonging of the lifespan of vehicles, reduced risk to the reputation of the brand or local authority.

The systems can be configured to generate reports highlighting any events occurring outside of preset parameters so that action can be taken without the need for constant monitoring by staff.

Systems with route planning included can automate the generation of multiple stop routes, with onthe-fly route reconfiguration and driver/customer updates to meet changing demands during the day.

Other benefits include; order management, route planning, dispatching, arrival & departure times, GPS tracking, and live updates.

4.5.2 Driver awareness training

Training employees to be more fuel efficient when driving can increase driver's miles per gallon (MPG) by 15%, helping organisations save on fuel costs.

Additional benefits of driver efficiency training include:

- Reduced wear and tear on tyres, brakes and clutches
- Reduced carbon footprint
- Fewer accidents driver efficiency training encourages drivers to anticipate the road ahead, reducing the likelihood of accidents.

As seen in Table 9, even a 5% saving for Babergh and Mid Suffolk District Councils' entire fleet, including those that are contracted out, could translate to savings of £49,082/year with potential for savings of up to £147,245/year if fuel efficiency savings of 15% can be reached. This is based on the fuel consumption data for 2018/19 where diesel consumption across all scopes was 755,101 litres.

Table 9: Potential Fuel Efficiency Savings with Telematics and Driver Awareness

Telematics and training improvement	Fuel savings (diesel, litres/year)	Cost saving (£/year)	CO₂e saving (tCO₂e/year)
5% saving	37,755	£49,082	97.9
15% saving	113,265	£147,245	293.8

It is a realistic estimate that consideration of **telematics reporting** and undertaking **driver training** would result in a 5% reduction in fuel usage across the entire fleet. This could achieve carbon savings of **97.9** tCO₂e/year which equates to around **1.8% of Babergh and Mid Suffolk District Councils' total GHG emissions** for 2018/2019.

Costs are normally subscription based and around £15 per vehicle per month. Further information on telematics and details for smarter driver training are available from the Energy Saving Trust in the report: www.energysavingtrust.org.uk/sites/default/files/Telematics.pdf.

It is appreciated that the introduction of telematics can be a controversial subject and consultation is required to ensure that all parties and stakeholders understand the objectives and scopes of such a project.



Northumberland County Council waste collection route optimisation.



When fully implemented the optimised waste collection route is expected to reduce fleet emissions by 12%, equivalent to **198tCO**₂**e**.

4.6 Upgrade Fleet from Diesel to Alternative Fuels or Electric

It is recommended that Babergh and Mid Suffolk District Councils investigate the potential for **replacing or retrofitting diesel vehicles** within their fleet with vehicles powered by alternative fuels or electric. Not only would this reduce carbon emissions, it will also make improvements to air quality. It is estimated that across the UK, 60% of deaths related to the combustion of fossil fuels are caused by the transport sector⁵.

From the data available it has not been possible to assess the patterns of use for each vehicle within the fleet (such as the average journey length and the hours of use per day) which will inform and affect decisions regarding which of the fleet vehicles are the most suitable for replacement with alternative fuels and which ones with electric equivalents. Important considerations for upgrading to electric vehicles are range and charging times and until Babergh and Mid Suffolk District Councils are fully satisfied with the technologies for electric vehicles, they are looking at interim measures which include alternative fuels, like biodiesel.

Caution should be taken when looking at biodiesel as an alternative fuel as while biodiesel produces lower carbon emissions than diesel at the point of combustion, there are land-use emissions changes associated with biodiesel that also require consideration. In 2015 EU policymakers set a limit on the growing consumption of land-based biofuels due to their potential to increase carbon emissions rather than decrease them. ⁶ Consideration of the opportunities to make use of waste vegetable oil in the production of the biodiesel should therefore be investigated. The Greater London Authority has undertaken cost-benefit analysis of biodiesel and other alternative fuels in its report for the Mayor's Biodiesel Programme: www.london.gov.uk/sites/default/files/cost_benefit_analysis_full_report.pdf.

⁵ www.ashden.org/programmes/co-benefits

⁶ www.transportenvironment.org/news/biodiesel-increasing-eu-transport-emissions-4-instead-cutting-co2

In order to illustrate potential savings, it has been assumed that the 38 Euro 6 refuse collection vehicles within the fleet could be fuelled by biodiesel. In 2018/19, the vehicles included in Serco's waste contract consumed 546,231l of diesel with associated emissions of 1,417tCO₂e/year.

Annual savings in running costs from switching to biodiesel are estimated to be in the region of 1,400tCO₂e/year which equates to around 26% of Babergh and Mid Suffolk District Councils' total GHG emissions for 2018/2019.⁷

Table 10: Savings Associated with switching to biodiesel in refuse collection vehicles.

	Current			Replacement				Savings	
Vehicle Type	Consumption per year (litres)	Cost (£ per year)	tCO₂e per year	Vehicle Type	Consumption per year (litres)	Cost (£ per year)	tCO₂e per year	Cost (£ per year)	tCO₂e per year
Diesel refuse collection	546,231	£710,100	1,417	Biodiesel refuse collection	546,231	£655,477	17	£54,623	1,400

The savings achieved by switching to biodiesel fuel outlined in the example above equate to a reduction of 89% in emissions. By scaling this up to their entire vehicle fleet, additional savings can be expected, although as previously discussed, caution is needed. An alternative is to look in more detail at liquefied natural gas (LNG) as an alternative fuel, as used by Leeds City Council (see case study below), or compressed natural gas (CNG), as used by Liverpool City Council (see case study below). Furthermore, electric vehicles could be a more attractive proposition for the remaining fleet vehicles, such as vans and pool cars. However, a key benefit of using alternative fuels, is that it requires only minimal retrofitting as opposed to vehicle replacement.

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⁷ Carbon emissions calculations have been calculated using Defra's most recent conversion factors according to vehicle size. Government advisory fuel rates have been used for non-electric vehicles, and recommendations from professionals for electric vehicle fuel rates (see Fleet Industry News).

Liverpool City Council unveils biogas-powered refuse trucks



Liverpool City Council have agreed a new deal which will see 20 new refuse collection vehicles run on CNG. To achieve this, a CNG refuelling station has been fitted at its collection depot.

It is estimated that these vehicles will produce 80% less carbon, 90% less nitrogen oxide pollutants, and cut fuel costs by 35% compared to diesel-powered alternatives.

Liverpool City Council's head of service for Refuse and Recycling Harvey Mitchell said: "These gas-powered trucks are much cleaner, and also quieter, than traditional refuse collection vehicles, so we're confident they'll make a real difference to the local environment.



Leeds City Council Sign with Flogas to Power LNG Refuse Collection Vehicles



Leeds City Council collect around 306,000 tonnes of rubbish each year and have signed a contract with Flogas Britain to power its refuse collection fleet with LNG.

LNG is delivered to a Council-owned and fun filling station, where it is compressed before being used to fuel the vehicles.

It is estimated that LNG reduces carbon emissions by 30% compared to diesel.

4.7 Reduce Business Mileage

It is recommended that Babergh and Mid Suffolk District Councils implement a programme of measures to reduce the business mileage that employees carry out in their own vehicles. In 2018/19 staff and Councillors claimed travelling expenses for 586,500 miles. Suggested actions would include the following:

- Communicate on driver efficiency and provide low cost/free driver efficiency training
- Promote the use of electric pool cars in place of staff using their own fossil fuel vehicles
- Install electric charging points for the use of staff and consider introducing benefits such as free or reduced cost parking for electric vehicles
- Encourage the use of video conferencing and alternatives to the need to travel

Annual savings through a combination of some or all of these measures could achieve a 10% saving in carbon emissions associated with business mileage which equates to 16tCO₂e/year and approximately 0.3% of Babergh and Mid Suffolk District Councils' total GHG emissions for 2018/2019.



Leeds City Council is on its way to having 95 electric vehicles on its fleet in total.



The Council has a goal of making its **entire fleet zero or ultra-low** emission by 2025.

Meanwhile, <u>Dundee City Council</u> has **87 EVs** and <u>Swansea Council</u> has around **40**.



Mitie accelerates electric vehicle rollout with its 250th vehicle delivered.



Mitie is committed to switching 20% of its small van and car fleet to electric by the end of 2020. As of January 2020, the company have **200 electric cars** and **50 electric vans** in their fleet and **400 more vehicles on order**.



Sheffield City Council and Veolia are working together to trial <u>electric bin lorries</u> that are powered by the **waste** they have collected.



Existing refuse collection lorries have been retrofitted with electric batteries which will be charged from the energy generated from residual waste burned at the city's Energy Recovery Facility.

5. Renewable Energy Supply and Tariffs

Babergh and Mid Suffolk District Councils currently use a 'Blue tariff' which guarantees electricity supply from low carbon energy sources, in this case, this is supplied from nuclear energy. However, there are also options for **renewable energy**, and **low carbon gas** tariffs. This lower carbon

sourcing can be viewed as a 'donation' to the environment or may potentially be reflected in the carbon emission reporting of the organisation.

These tariffs generally have a **price premium**, which may vary depending on the generation blend. Usually this price premium is used to reinvest in future low-carbon generation technologies and ensure supply of renewable electricity to the grid.



In 2019, **Sheffield City Council** committed to purchasing electricity generated from 100% renewable sources would cost an additional £13,000 for 2019/20.

It is essential to ensure that the 'renewable' or 'low carbon' electricity purchased is backed by **renewable energy certificates**. Many electricity suppliers have more than one electricity product and it is important to ensure that certificates have been allocated to each product without double counting. This can be done using certificate serial numbers or third-party assurance.

Electricity tariffs which meet the **Quality Criteria** have an **emission reduction percentage** applied. This percentage can then be used to reduce the **Scope 2** emissions reported under dual reporting. The same carbon emission reduction can be obtained by using qualifying green gas suppliers and applying that reduction to the Scope 1 gas emissions.

This percentage reduction can be as high as 100% from some suppliers for 100% renewable electricity supplies at www.goodenergy.co.uk/business/emissions-reporting/.



Ecotricity has recently secured a contract with **Isle of Wight**Council to supply their Council buildings, including care homes and leisure centres, with 100% renewable energy.



Whilst **Bristol City Council**, are establishing their own **gas and electricity companies** which support and invest in local renewables, as well as offering **green tariffs to their local communities**.

Organisations may then be able to use renewable energy certificates to **report dual carbon emissions** for their electricity and gas consumption using **location-based emissions** and **market-based emissions**. Location-based emissions are accounted for using the emissions factor for national grid electricity, whereas market-based emissions are reflective of an organisations' procurement decisions and require certificates to allow for the reduction percentage, described above, to be applied.

The Blue electricity tariff from EDF Energy that Babergh and Mid Suffolk District Councils currently use is eligible for a reduction on scope 2 emissions as it is certified by Generator Declarations. However, further clarification is needed on which properties the tariff covers and what the reduction percentage would be, before this can be applied.

In order to reduce scope 1 emissions, Babergh and Mid Suffolk Councils should consider a low carbon gas tariff which provides certification to report in the same way as renewable electricity.

Excess electricity produced from solar PV or wind generation on the authority's buildings, that is subsequently exported, can also be offset in a dual report, reducing the overall emissions footprint.

Assuming the validity of the Councils' Blue tariff for its electricity supply and that gas could also be supplied through a certified low carbon tariff, Scope 2 emissions of 1,720 tCO₂e (27%) in 2018/19 and the Scope 1 emissions of 1,689 tCO₂e (28%) in 2018/19 would be reduced to zero. Giving a **total** saving of 55%.

In reality it may not be feasible to move all supplies, and the tariffs available may offer a lower rate of offset than 100%.

GREENHOUSE GAS PROTOCOL

Renewable Energy Purchasing

And

Scope 2 Emissions Calculations

Corporations purchasing renewable, green energy tariffs may

be able to **dual report** their scope 2 carbon emissions. The supplier must be able to provide a Guarantee or Origin, Renewable Energy Certificate, Power Purchase Agreement or other contract which meets the **Quality Criteria**. This will state the **reduction percentage**, approved for that supplier and specific tariff, that can be applied to the appropriate **Scope 2 emissions**. The organisation must report **both** this 'Market' based emission figure and the usual 'Location' based **emissions**.

BOX 3

In this example, a clothing manufacturer decides to reduce their emissions through purchasing carbon offsets and a green tariff that meet the good quality criteria set out by Defra. This does not impact on their reported Scope 2 figure where they apply a 'Grid Rolling Average' emission factor to their purchased green tariff electricity.

Scope 1	15,000
Scope 2	10,000
Total annual gross emissions (tCO₂e/year)	25,000
Purchased Carbon Offsets ¹	(5,000)
Purchased Green Tariff ²	(5,000)

Total annual net emissions (tCO₂e/year) 15,000

Further guidance on how to report on renewable energy use and align with the Greenhouse Gas Protocol is available at ghgprotocol.org/scope 2 guidance

Information on the reporting of certified Green Gas Tariffs can be found at the Green Gas Certification Scheme at www.greengas.org.uk/ and at Avieco www.carbonsmart.co.uk/greenhouse-gas-reporting-to-reflect-natural-gas-tariffs-containing-biomethane/

DEFRA Guidance on how to measure and report your greenhouse gas emissions assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69282 /pb13309-ghg-guidance-0909011.pdf

¹ We purchased 5,000 carbon credits from Carbon Offsetting Ltd. The credits are from Project 0939: Yutan Hydroelectric Project. The credits are Kyoto-compliant Certified Emission Reductions (CERs) covered by the Clean Development Mechanism (CDM). Project documentation can be found here: http://cdm.unfccc.int/Projects/DB/DNV-CUK1171524749.54/view

² We purchased all our electricity from Green Electricity Ltd. We use their Eco + green tariff. This tariff is certified under the independent certification scheme based on OFGEM's Final Green Supply Guidelines. The Eco + tariff offsets 50% of the carbon emissions from the tariff using Kyoto-compliant Certified Emission Reductions (CERs). Therefore we have reduced our emissions from the consumption of purchased electricity by 50%. This equates to a carbon saving of 5,000 tonnes of CO₂e per year.

Carbon Trust Guide to Renewable Power & GHG Scope 2 Reporting www.carbontrust.com/news-and-events/insights/scope-2-reporting-guidance-the-dawn-of-a-new-era-for-green-electricity

Information on EDF's Blue tariff is available at www.edfenergy.com/large-business/buy-energy/blue-business

6. Carbon Offsetting

It is clear that Babergh and Mid Suffolk District Councils' zero carbon ambition cannot be achieved through improvements in fabric efficiency, fleet management and the incorporation of renewable energy alone and therefore off-site carbon abatement is likely to be required through **carbon offset schemes**.

Carbon offsetting involves paying projects or providers to reduce or offset emissions when you are not able to reduce your own carbon footprint any further. Projects need to be additional to what would have happened without the funding (termed *additionality*), and are required to evidence other key characteristics to ensure the integrity and credibility of an offset.

It should be emphasised that the most effective and environmentally sound way to reduce an organisation's carbon emissions is to:

- Focus on reducing internal direct emissions of burning fossil fuel and use of electricity from the grid
- Reduce indirect emissions from your supply chain both up and downstream, influence others to reduce emissions

Organisations should therefore **only use carbon offsets after exhausting these avenues**. Key to this is developing an offsetting strategy, with **targets for offsetting** which can be reduced over time as other **carbon reduction actions** are implemented, and by ensuring that only high-quality offsets are purchased from verified projects that genuinely create credible emissions reductions.

The Carbon Trust have developed a three-stage approach to developing an offsetting strategy and this is available at www.sustainabilityexchange.ac.uk/files/ct_offset_strategies.pdf.



Carbon sequestration is the process of increasing the carbon content of a carbon reservoir other than the atmosphere.

Third party offset schemes vary widely in terms of the cost, though a fairly typical fee would be between £10-20 for each tonne of CO₂ offset through an offsetting or carbon balancing scheme. This cost per tonne is likely to come down with the offsetting of larger volumes of emissions.

For example, this would mean that to offset **25% of total GHG emissions** for the year 2018/2019 would cost in the region of **£20,445** (1,363tCO₂e x £15 = £20,445).

6.1 Carbon Offsetting Projects and Verification

Although tree planting is often what springs to mind, carbon offsetting can take many forms including renewable energy projects, agriculture, energy efficiency, afforestation, and rainforest protection.

The 2019 UK Climate Change Committee 'Net Zero Report' highlights how the way we farm and use our land in the UK has the potential to provide **carbon sequestration** which will help zero carbon targets to be achieved.⁸ Natural England also outlines how different types of land use can sequester carbon at differing rates in its report 'Carbon Storage by Habitat'.⁹



Carbon sink is any process, activity or mechanism that removes a greenhouse gas or a precursor of a greenhouse gas from the atmosphere.

Several standards exist to verify the efficacy of offsets which take into account the additionality, permanence (will it still be there in 50 years' time?) as well as any 'leakage' in the form of detrimental effects outside of the project area attributable to project activities.

Woodland Carbon Units (WCU) quantify carbon sequestration attributed to the creation of woodland within the UK. A Woodland Carbon Unit is a tonne of CO₂e which has been sequestered in a Woodland Carbon Code verified woodland. It has been independently verified, is guaranteed to be there, and can be used by UK companies to report against emissions or use in claims of carbon neutrality as soon as it is purchased.¹⁰

Although these are certified to the **Woodland Carbon Code**, they are not termed offsets or carbon credits because they do not meet all aspects of 'additionality' requirements, in common with all domestic emissions reduction projects. However, this does not mean that it is inappropriate to finance UK domestic projects, as doing so helps the UK to meet its targets efficiently and it is felt that these could legitimately be used as part of Babergh and Mid Suffolk District Councils' strategy to become carbon neutral.

6.2 Babergh and Mid Suffolk District Councils' Opportunities for Offsetting

Whilst offsetting is generally moving away from simple tree-planting towards clean energy projects, in a largely rural area such as Babergh and Mid Suffolk District Councils there is potential to develop or invest in projects to offset carbon emissions through the implementation of improved agricultural practices, or conservation of natural environments. **Friends of the Earth recommends that**

¹⁰ www.woodlandcarboncode.org.uk/buy-carbon/what-are-woodland-carbon-units

 $^{{}^{8}\,\}underline{www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf}$

⁹ publications.naturalengland.org.uk/publication/1412347

Councils use their land to drawdown carbon (e.g. through tree planting)¹¹. This land could be managed to offset carbon through tree planting and soil carbon management by partnering with other organisations.

Maple Farm Kelsale is a 138-hecatre <u>organic farm</u> near Saxmundham, Suffolk which has been working with the Woodland Trust over several years to implement an ongoing <u>agroforestry scheme</u> through which trees are planted in 'alleys' across what were previously large fields. The alley planting aims to improve soil structure and prevent soil erosion, <u>improve</u> <u>biodiversity and sequester carbon</u> - whilst still allowing farm machinery access to work the land.

A recent report from the Intergovernmental Panel on Climate Change also suggests measures to mitigate climate change including replanting forests and using more trees as part of 'agroforestry' schemes on farms.



By managing the **roadside verges** across the county, Lincolnshire County Council's <u>'Verge Grass to Biomass'</u> project has been **offsetting its carbon emissions** and lowering its carbon footprint.

Through the use of anaerobic digesters they are **creating clean energy** from verge cuttings. **Verges grow wild** over summer in order to encourage **pollinators** such as butterflies and bees instead of mowing them.

At the end of the summer, the grass is mown and the long cuttings sent to be used as **biofuel**. Removing the cuttings from the roadside also helps to encourage and protect wildflowers, increasing biodiversity and slowing down the regrowth of grass, **reducing** the need for **roadside cutting** and reducing the associated **costs**.

The key to Babergh and Mid Suffolk District Councils' plans would be to ensure that any project, which was supported in order to offset emissions, should be able to demonstrate additionality (i.e. the project needs to be additional to what would have happened without the Councils' intervention),

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¹¹ Friends of the Earth's 33 Actions Local Authorities Can Take to Tackle Climate Change is available at: policy.friendsoftheearth.uk/insight/33-actions-local-authorities-can-take-climate-change

whilst also evidencing ways in which it can help meet other Sustainable Development Goals¹² and benefit local stakeholders.

It is recommended that Babergh and Mid Suffolk District Councils consider how existing environmental management networks¹³ could work in partnership to identify and deliver suitable carbon offsetting projects. Larger organisations working within both Babergh and Mid Suffolk District Councils' areas, such as Philips Avent, Bosch, and Nestle Purina could also provide opportunities for partnership working on carbon offsetting.

Carbon Offset Funds and the Planning Process.

Where local authorities **require the development of new homes to be zero carbon**, a combination of minimising on-site carbon emissions and **offsetting emissions** can be applied.

In situations where **100% reduction** in carbon emissions cannot be achieved on-site, Councils can establish a **Carbon Offset Fund** for financial contributions from developers.

This can enable the zero-carbon standard to be met through **projects off-site**. Investments in the fund can then be used elsewhere within the local area to achieve carbon savings.

In the Greater London Authority's Supplementary Planning Guidance the price of carbon offsets for their Carbon Offset Fund is **£60 per tonne**, which is paid by the developers, per year, **for 30 years**.

Local authorities outside of London are also introducing carbon offset funds. <u>Milton Keynes</u> has been operating one since 2008 and <u>Southampton</u> since 2015.

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¹² <u>sustainabledevelopment.un.org/?menu=1300</u>

¹³ See Appendix 3: Register of Environmental Management Partnerships/Networks in *Babergh and Mid Suffolk District CouncilEnvironmental Policy to 2023*

7. Grants and Funding Opportunities

7.1 Solar PV

The **Suffolk Climate Change Partnership** (SCCP) is looking to establish power purchase agreements (PPAs) with organisations across Suffolk which have a large electricity demand and a big roof through its **'Investable Opportunities' scheme for solar PV**. SCCP will provide the capital for the solar PV installation and sell the electricity back to the partner organisation at a reduced cost.



7.2 EV Charging

In 2016 the Department for Transport launched the On-Street Residential Charge Point Scheme, offering **funding for local authorities to buy and install electric car charge points**. The scheme makes available up to 75% of the cost of procuring and installing charge points. Local authorities can fund the remaining costs through public and private sources.

Grants are also available to Local Authorities wishing to install charge points at workplaces. www.gov.uk/government/publications/workplace-charging-scheme-guidance-for-applicants-installers-and-manufacturers.

Plug-in-Suffolk offers potential site owners, such as car park operators, the opportunity to install EV charge points with contactless card payment options, see www.greensuffolk.org/plug-in-suffolk/.

For further information on grants for local authorities to provide on-street residential charge points see www.gov.uk/government/publications/grants-for-local-authorities-to-provide-residential-on-street-chargepoints.

7.3 Funding for Woodland Creation to Support Carbon Storage

Increasing the number of green spaces within communities provides a variety of benefits, in addition to reducing emissions, which include reducing flood risk, and overheating, and can also improve air quality. Green spaces have also been shown to have a positive impact on life expectancy and physical and mental wellbeing.

If Babergh and Mid Suffolk District Councils were to plant 2,350 trees, it is estimated that **52tCO₂e per year** would be saved and would cost approximately **£308,000**.

The **Woodland Carbon Fund** supports the planting of productive, multi-purpose woodlands to store carbon.

The scheme offers capital funding for the creation of new woodland of 10 hectares or more, including the planting of trees and costs of protection items including tree guards, fencing and gates. The funding rate (80% or 100% of costs) depends upon whether your site is in a 'priority place' near to urban areas which give access to the public on foot.¹⁴

There is more information, including the eligibility criteria at: www.gov.uk/guidance/woodland-carbon-fund.

Selling **Carbon Credits** can also provide additional income and support projects which are not cost-effective with a woodland creation grant alone. To be able to sell carbon credits the project needs to be registered with the Woodland Carbon Code within 2 years from the start of planting. Validation/verification to this standard provides assurance of the carbon savings and access to the voluntary carbon market.

There are also grants available to help groups develop a Woodland Carbon Fund compliant project through the **Woodland Creation Planning Grant**. 15

The **Woodland Carbon Guarantee** (WCaG) is an incentive scheme which will provide long-term (30-35 years) payments for carbon sequestration to landowners in England who plant new woodlands. The WCaG will offer successful participants the option to sell woodland carbon units (WCUs) to government at a guaranteed price set by auction, which may be above current market rates.

The WCaG will guarantee a price for carbon that will be paid as a woodland grows, providing payments for up to 35 years after planting. The guarantee holder will also have the option to sell the WCUs on the open market. It is expected that these payments will supplement establishment and, where available, maintenance grants.

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¹⁴ There are some 'priority places around Felixstowe which could benefit from this 100% funding rate. See map at :

¹⁵www.gov.uk/guidance/woodland-creation-planning-grant

Details of the WCaG application process can be found here www.gov.uk/guidance/woodland-carbon-guarantee.

The **Urban Tree Challenge Fund** (UTCF) provides funding to support the planting and establishment of large and small trees in urban and peri-urban areas in England. The fund is competitive and targeted at projects that can provide the greatest environmental, social and economic benefits in our towns and cities.

The fund offers up to 50% of published standard costs to support the planting and establishment of urban and peri-urban trees. The UTCF is a challenge fund, which means applicants are required to provide at least 50% match funding from other sources, which can be in the form of money or labour. ¹⁶ Applications for year 1 are now closed.

National Lottery Awards for All England will support organisations, including statutory bodies, with smaller funding grants of between £300 and £10,000. The projects have to improve the places and spaces that matter to communities as well as involve communities. More information can be found here www.tnlcommunityfund.org.uk/funding/programmes/national-lottery-awards-for-all-england#section-3.

The Woodland Trust can support landowners, including local authorities, with woodland creation guidance and funding through their MOREwoods project. The Woodland Trust also provide schools and communities with free trees.

Applications are considered each year in the lead up to the planting season (autumn and winter) and successful applications will get advice from woodland creation specialists who can make recommendations for the species mix and design of any new woodland.

MOREwoods funding applies to sites of at least 0.5 ha (1.25 acres) of non-wooded land in total at between 1000 and 1600 trees per hectare. If your scheme is approved and you are able to plant and maintain the trees yourself, they will cover up to 75% of the cost of the trees, tree protection and support.

Further information on the MOREwoods projects is available here www.woodlandtrust.org.uk/plant-trees/large-scale-planting/.

Further information on free trees for schools and communities is available here www.woodlandtrust.org.uk/plant-trees/schools-and-communities/.

¹⁶ www.gov.uk/guidance/urban-tree-challenge-fund



Harlow Council have held three **community tree planting days** since December 2019, where residents and groups are invited to join local Councillors and Council staff to plant trees and create two new community groves.



As part of its <u>roadmap to carbon neutrality</u>, Cornwall Council has proposed a 'Forest for Cornwall'.

This will involve **planting** 32 square miles or about **2%** of Cornwall's land mass with trees to **absorb carbon**.

It has been estimated that over time this forest could sequester around **1%** of Cornwall's annual **carbon footprint** at a cost of between **£25 and £30 million**.

The Council's plan highlights the fact that emissions reductions are **not accounted** for within the **first five years of planting** and that the rate of **carbon draw down increases over time**, according to the Forestry Commission.

Cornwall Council's plan also outlines its intention to develop a **voluntary carbon offset** scheme for Cornwall to help **fund tree planting** through the sale of
Woodland Carbon Units to organisations wishing to evidence carbon neutral operations;
involving partners such as the **Local Nature Partnership**, landowners, the **National Trust**, **the Duchy**, South West Water and the Forestry Commission.

8. Tools for Local Authorities

SCATTER is a free tool for local authorities to help standardise their greenhouse gas reporting and align to international frameworks. The tool can also be used to develop a credible decarbonisation pathway for a local authority to implement in line with their emissions targets. This is done by allowing the user to choose ambition thresholds across more than 45 emission reduction interventions.

For more information please contact Sarah Gill on 07720098980 or sarah.gill@groundwork.org.uk, or visit scattercities.com/.

Alongside SCATTER, the **Tyndall Carbon Targeter** has been developed by the University of Manchester and the Tyndall Centre and can help local authorities better understand the scale of the challenge when addressing climate change through local action. The free tool calculates a maximum carbon budget for the selected area, as well as projected emissions reduction pathway, interim carbon budgets and average emissions reduction rate.

More information can be found at carbonbudget.manchester.ac.uk/about/

Sustainable energy charity Ashden has produced a 'Climate Action Co-Benefits Toolkit' specifically designed for Councils which outlines how engaging people through structures like citizens' panels and connecting climate policy to the needs of everyone, can demonstrate that the consequences of climate action can improve lives, not diminish them.

The toolkit is available to download at www.ashden.org/programmes/co-benefits

Non-governmental organisations are also getting involved and offering advice on how Councils are best placed to take action on climate change. **Friends of the Earth** believes that a local authority's three overarching strategic actions should be to:

- Make a political commitment to reduce carbon emissions;
- Develop carbon reduction pathways, climate compliant strategies and plans; and
- Raise funds for action.

Friends of the Earth's 33 Actions Local Authorities Can Take to Tackle Climate Change is available at: policy.friendsoftheearth.uk/insight/33-actions-local-authorities-can-take-climate-change

Ashden and Friends of the Earth have joined forces to put together an evidence-based list of the most effective actions Councils can take on climate. The **31 Climate Actions for Councils** are quantified in terms of likely carbon savings, approximate costs and co-benefits. They also point to examples of best practice around the UK.

The list of actions can be downloaded from www.ashden.org/programmes/top-31-climate-actions-for-Councils.

In May 2012 the UK's Committee on Climate Change published a report on 'How local authorities can reduce emissions and manage climate risk' which outlines the potential opportunities which exist for Councils to reduce the emissions associated with their own estate and operations, as well as the wider impact they can have on reducing emissions at the local level, whether through the planning system, sustainable waste management or transport infrastructure.

The report is available at www.theccc.org.uk/wp-content/uploads/2012/05/LA-Report final.pdf

The Energy Savings Trust can provide support and information on how local authorities can reduce the associated impacts of their own fleets and their employees' travel through their **Local Government Support Programme.** This includes supporting the sharing of best practice and helping to identify transport programmes at a local and regional level that will help make a real difference in air quality and achieve emissions reductions.

Details of the support available can be found at www.energysavingtrust.org.uk/transport/local-authorities/local-government-support-programme.

The **RE:FIT framework** is a competitively tendered energy performance contracting framework which facilitates energy services companies to retrofit public sector buildings with energy reduction and generation measures.

When entering into a contract with a public sector organisation, the energy services company guarantees the energy savings from the works that it is undertaking over a given period. Organisations are therefore assured of a secure financial saving.

More information is available at www.crowncommercial.gov.uk/agreements/RM3768.

Groundwork Suffolk can provide further assessments, energy audits on individual buildings and help quantify carbon reductions over time, supporting local authority officers in meeting their carbon commitments.

Please contact Rex Kellett on 01473 350370 or Suffolk@groundwork.org.uk

Appendix 1: Details of Council Properties

Most Recent DEC Rating and Benchmark Energy Consumption Data Sourced during Desk-based Survey.

Building	Total Current Energy Consumption kWh (electricity and gas)	Total Current Energy Consumption litres (heating oil)	Latest DEC rating	Latest DEC rating	Date of Latest DEC rating	Total Current Energy Consumption kWh/m² (electricity and gas)	Benchmark Energy Consumption for a GOOD building of this type kWh/m²	Benchmark Energy Consumption for a TYPICAL building of this type kWh/m²
Kingfisher Leisure Centre	3,748,464	N/A	Е	114	27/01/2020	1,019	360	750
Hadleigh Leisure Centre	1,056,781	N/A	D	96	09/04/2013	622	360	750
Mid Suffolk Leisure Centre	2,992,340	N/A	С	61	15/02/2019	432	360	750
Stradbroke Leisure Centre	548,767	N/A	Е	125	16/11/2015	844	725	1,573
Endeavour House*	492,096	N/A	E	106	23/05/2018	201	183	320
Chilton Depot	73,000	N/A	Not Available			183	320	
Wenham Magna Depot	7,542	4,490	Not Available			183	320	
Creeting Road Depot	110,132	36,465	Not Available			183	320	
54 Ipswich Street	Not available	Not available	F	139	12/04/2013	Not Available	183	320

^{*}Energy consumption data for Endeavour House is assumed as 14% given this is space occupied by Babergh and Mid Suffolk District Councils.

The following assessment of each property is based on the available data from the most recent DEC reports, Bing and Google Maps aerial and street view data and information provided by Babergh and Mid Suffolk District Councils. It is recommended that a thorough, up to date assessment is made of the current condition of each property.

Kingfisher Leisure Centre

Kingfisher Leisure Centre is classified as a Swimming Pool Centre; Dry Sports and Leisure Facility, has a useful internal floor area of 3,623m² and is heated and mechanically ventilated.

The most recent DEC was issued 27/01/2020 and gave the building an Energy performance Asset Rating of E (114). Previous assessments in 2018 and 2017 have rated the building as D (86) and D (85), respectively.

When benchmarked against similar facilities, the most recent year's total energy consumption (gas and electricity) is 183% above what is expected from a GOOD property and 36% above what is expected from a TYPICAL property. When broken down to each energy type, electricity usage at Kingfisher Leisure Centre is 21% above TYPICAL, and gas usage is 40% above TYPICAL.

The Leisure Centre has undergone significant refurbishment in 2019 and 2020, which includes LED lighting upgrades, as well as improved heating and mechanical ventilation. The Centre is also being extended to double the size of the health and fitness facility which may offset some of the expected energy savings but nonetheless, improvements are expected over the coming years. It is recommended that once all the works have been completed, a full energy audit and energy monitoring should be completed to ensure all systems and equipment is operating effectively and efficiently, and to also identify areas for future improvements.

There is an active assessment underway to determine the viability of solar car port, but to go further, it is recommended that an assessment is completed for roof mounted solar PV as well, as this will further reduce electricity consumption from the grid. Solar thermal should also be a consideration as it can be used to top up the pool and will also be used in the showers and hand basins.

It has also been confirmed that a replacement of the water filter backwash cleaning unit and associated heat recovery is underway at Kingfisher Leisure Centre which will lead to carbon savings, although it is unknown by how much.

Electric car charge points have also been installed at Kingfisher Leisure Centre.

Hadleigh Leisure Centre

The building is around 50 years old and is classified as a Dry Sports and Leisure Facility with a useful internal floor area of 1,698m² and is heated and mechanically ventilated.

The most recent DEC was issued 27/01/2020 and gave the building an Energy performance Asset Rating of D (96). Previous assessments in 2019 and 2018 have rated the building as D (86) and D (84), respectively.

When benchmarked against similar facilities, the most recent year's total energy consumption (gas and electricity) is 73% above what is expected from a GOOD property but 17% below what is expected from a TYPICAL property, placing Hadleigh between the two ratings. The reason for this is that in terms of gas consumption, the property is performing better than expected from a TYPICAL property, and therefore, is consuming more electricity than would be expected from a TYPCIAL property.

Some improvement works have been completed in recent years, notably the air conditioning external plant. However, there are still areas for further improvement on the mechanical and filtration aspects. Babergh District Council have recognised this, and have taken the decision to demolish the current swimming pool and replace with new swimming facilities. The new swimming pool is currently being built and is due to open to the public in Summer 2020. It is recommended that once the new pool is open, energy should be monitored regularly to ensure all systems and equipment are operating efficiently. A full energy audit should also be undertaken to identify any areas where further investments could be made across the wider leisure facilities that would have an impact on the energy efficiency of the leisure centre as a whole.

It is also recommended that an assessment into the viability of solar PV is undertaken, either on the roof or as a car port. as this will reduce electricity consumption from the grid. Solar thermal should also be a consideration as it can be used to top up the pool and will also be used in the showers and hand basins.

Mid Suffolk Leisure Centre

Mid Suffolk Leisure Centre is classified as a Dry Sports and Leisure Facility with a useful floor area of 6,920m² and is heated and mechanically ventilated.

The most recent DEC was issued 15/02/2019 and gave the building an Energy performance Asset Rating of C (61). Previous assessments in 2018, 2017, and 2016 have rated the building as C (61), C (68), and C (67) respectively, showing an improvement particularly during 2017.

When benchmarked against similar facilities, the most recent year's total energy consumption (gas and electricity) is 20% above what is expected from a GOOD property but 42% below what is expected from a TYPICAL property, placing Mid Suffolk Leisure Centre between the two ratings. For the property to reach GOOD status, electricity consumption as measured per m² would need to improve by 16% and gas consumption by 71%.

It is unclear what refurbishment works have already taken place, however, Mid Suffolk District Council have secured funding to allow for a complete refurbishment of the Leisure Centre with detailed plans and timescales yet to be finalised. It is anticipated that these works will include energy efficiency improvements but a full energy audit is recommended to determine exactly what energy efficiency improvements should be considered during the refurbishment.

There is an active assessment underway to determine the viability of a solar car port, but to go further, it is recommended that an assessment is completed for roof mounted solar PV as well, as this will further reduce electricity consumption from the grid. Solar thermal should also be a consideration as it can be used to top up the pool and will also be used in the showers and hand basins.

It is anticipated that electric car charge points will be installed at Mid Suffolk Leisure Centre as Mid Suffolk District Council continues their roll-out programmes.

Stradbroke Leisure Centre

Stradbroke Leisure Centre is classified as a Swimming Pool Centre with a useful floor space of 650m² and is heated and mechanically ventilated.

The most recent DEC was issued 16/11/2015 and gave the building an Energy Performance Asset Rating of E (125). A previous assessment in 2013, rated the building as F (133), suggesting that improvements have been made.

When benchmarked against similar facilities, the most recent year's total energy consumption (electric only), is 16% above what is expected of a GOOD facility, and 46% below what is expected from a TYPICAL facility.

It is unclear what improvements have already been undertaken, however, it is anticipated that Stradbroke Leisure Centre will receive funding for some improvement works, although it is not known what these will consist of. It is recommended that a full energy audit be carried out on site to determine what energy efficiency improvement works are needed, and should be considered under the impending refurbishment.

There is an active assessment underway to determine the viability of a solar car port, but to go further, it is recommended that an assessment is completed for roof mounted solar PV as well, as this will further reduce electricity consumption from the grid. Solar thermal should also be a

consideration as it can be used to top up the pool and will also be used in the showers and hand basins.

It is anticipated that electric car charge points will be installed at Stradbroke Leisure Centre as Mid Suffolk District Council continues their roll-out programmes.

Mid Suffolk District Council have also identified the potential for ground source heat pumps at Stradbroke Leisure Centre, however, a scoping report has not been undertaken for this yet. It is recommended that this project is progressed and a feasibility report undertaken.

Endeavour House

Endeavour House was built in the early 2000s and is classified as a General Office with a useful floor area of 17,500m². The building has been occupied by Suffolk County Council since completion and became their headquarters. In 2017, Babergh and Mid Suffolk District Councils moved from their separate headquarters in Hadleigh and Needham Market, respectively, to Endeavour House in Ipswich. It is estimated that Babergh and Mid Suffolk Councils occupy 14% (2,450m²) of the total floorspace available.

The most recent DEC was issued 04/12/2019 and gave the building an Energy Performance Asset Rating of E (106). Previous assessments in June 2019 and 2018 rated the building as E (106) and F (130), respectively, suggesting that improvements have been made over 2018/19.

When benchmarked against similar properties, the most recent year's total energy consumption is 10% above what is expected of a GOOD property and 37% below what is expected of a TYPICAL property, placing Endeavour House between those two ratings. This is due to more electricity being consumed than expected, as consumption is 20% above what is expected from a TYPICAL property and 88% above GOOD. Gas consumption, on the other hand, compares extremely well and is 57% below what is expected from GOOD.

At the time of construction, a solar PV system was integrated into the glass atrium and south facing façade, to generate 84,000 kWh electricity and save 36.1 tCO₂e annually. The system also provides shading to reduce solar gain.

As the property is not owned by Babergh and Mid Suffolk Councils, many recommendations are not suitable, however, it is worth doing a mini energy audit to determine staff behaviours when it comes to turning appliances off etc. If Babergh and Mid Suffolk District Councils could engage with Suffolk County Council on improving the energy efficiency of the building then it is recommended that a full energy audit and monitoring be carried out, particularly to determine the effectiveness of the solar PV, given that the system is nearly 20 years old.

Chilton Depot

The size and age of this building is unknown and no DEC rating is available so while there is electricity consumption data available, it is not possible to assess the energy performance of this property.

It is understood that in 2017 the property underwent refurbishment where LED lighting was installed as well as infra-red heaters.

It is recommended that a full energy audit be undertaken to understand how this building compares to similar properties, the audit will also identify areas where further improvements could be made.

An energy monitoring schedule should also be set up to ensure accurate data collection which will aid future greenhouse gas emissions reports.

Babergh District Council have identified the potential for a ground-mounted solar PV system but are yet to scope this project out. It is recommended that a feasibility study is conducted to further this project.

Wenham Magna Depot

The size and age of this building is unknown and no DEC rating is available so while there is electricity consumption data available, it is not possible to assess the energy performance of this property.

It is recommended that a full energy audit be undertaken to understand how this building compares to similar properties, the audit will also identify what energy efficiency measures have been installed and areas where further improvements could be made. An energy monitoring schedule should also be set up to ensure accurate data collection which will aid future greenhouse gas emissions reports.

It is also recommended that an assessment into the viability of solar PV is undertaken as this will reduce electricity consumption from the grid.

Creeting Road Depot

The size and age of this building is unknown and no DEC rating is available so while there is electricity consumption data available, it is not possible to assess the energy performance of this property.

It is recommended that a full energy audit be undertaken to understand how this building compares to similar properties, the audit will also identify what energy efficiency measures have been installed and areas where further improvements could be made. An energy monitoring schedule should also be set up to ensure accurate data collection which will aid future greenhouse gas emissions reports.

Mid Suffolk District Council have identified the potential for a ground-mounted solar PV system but are yet to scope this project out. It is recommended that a feasibility study is conducted to further this project.

54 Ipswich Street

Coinciding with the Councils' move to Endeavour House in 2017, Babergh and Mid Suffolk District Councils opened a Customer Service point in an existing building along Stowmarket's Ipswich Street. The building is classed as B1 Offices and Workshop and has a useful floor space of 657m².

The most recent DEC was issued 12/04/2013 and gave the building an Energy Performance Asset Rating of F (139) with no previous assessments available for the property.

Energy consumption for the building was unavailable and so benchmarking has not been possible. However, for a similar property, a GOOD rating would achieve a total energy consumption of 183 kWh/m² and 320 kWh/m² for a TYPICAL rating.

It is recommended that an energy monitoring system is put in place to ensure energy usage is being recorded as this will give a better understanding of how this building performs when compared to similar properties, it will also aid future greenhouse gas reports. It is also recommended that a full energy audit is completed to identify areas that may require improvement, particularly as it is

unknown whether any energy efficiency improvements were made prior to the Councils taking ownership.

It is also recommended that an assessment into the viability of solar PV is undertaken as this will reduce electricity consumption from the grid.

Appendix 2 Priority Actions for Carbon Reduction Pathways

Environmental	Environmental	Actions	Next steps
Aspect	Impact		
Building Energy Use	Electricity (Scope 2 emissions)	Assess opportunities for behavioural change amongst Council employees (and customers/residents). Prioritise buildings for energy efficiency upgrades (LED lighting; equipment upgrades). Consider opportunities to install solar PV on Council properties (also ground mounted solar farms, carports). Look at the opportunities to report your Blue electricity tariff under dual reporting.	Benchmark buildings across portfolio to highlight those with greatest need for improvements. Prioritise energy/carbon reduction actions. Establish indicative costs and carbon savings for actions.
	Gas (Scope 1 emissions)	Assess opportunities for improved insulation of buildings and technologies to reduce gas use. Assess opportunities for improved controls and behavioural change. Look at the options available for purchasing gas from green tariffs.	Benchmark buildings across portfolio to highlight those with greatest need for improvements.

Transport	Fleet mileage	Implement driver eco-awareness training and	Pinpoint areas where you can reduce wasteful or polluting
	(Scope 1)	improved route planning and telematics.	behaviours (e.g. excessive idling, harsh acceleration and
		Encure regid transition of float vehicles to electric	speeding).
		Ensure rapid transition of fleet vehicles to electric and/or fuel-efficient alternatives.	Tolomotics can identify ways to make significant cost
		and/or ruer-emcient alternatives.	Telematics can identify ways to make significant cost savings.
		Put in place EV charging infrastructure and/or the	J. Company of the com
		infrastructure for alternative fuels.	Look at the vehicles on the fleet now and when they are due
			to be replaced (focus on worst performing e.g. Euro 3 or 4).
			Assess which vehicles could be replaced with low and zero
			emission vehicles, and which are allocated to drivers whose
			job role may mean they will need a petrol or diesel model
			for a further three or four years.
			EV charging can help to push forward the adoption of less
			polluting vehicles as well as provide a potential revenue
			stream for a local authority.
	Business mileage	Focus on behavioural change; incentives to	Consider whether technology such as screen sharing and
	(Scope 3)	minimise business mileage or encourage use of	conference calling reduce the need to travel in the first
		electric pool car.	instance.
		Support the development of car sharing and/or	Are there alternative travel methods to consider, for
		parking restrictions to achieve behavioural change.	example utilising public transport, introducing pool
			vehicles/car sharing and cycle-to-work schemes and
		Put in place EV charging infrastructure.	initiatives?

Offsetting	Trees and greenspaces	Use Council land to drawdown carbon (e.g. tree planting).	Council land could be managed to offset carbon (e.g. through tree planting, soil carbon management, etc.).
		Invest in carbon offset/carbon balancing schemes with verified outputs.	Managing green spaces alongside roads and in urban settings can also contribute.
			Work in partnership with local schemes and interested parties to develop innovative climate mitigation and carbon
			offset schemes. Investigate opportunities for funding.



Groundwork Suffolk. March 2020 on behalf of Babergh and Mid Suffolk District Council

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