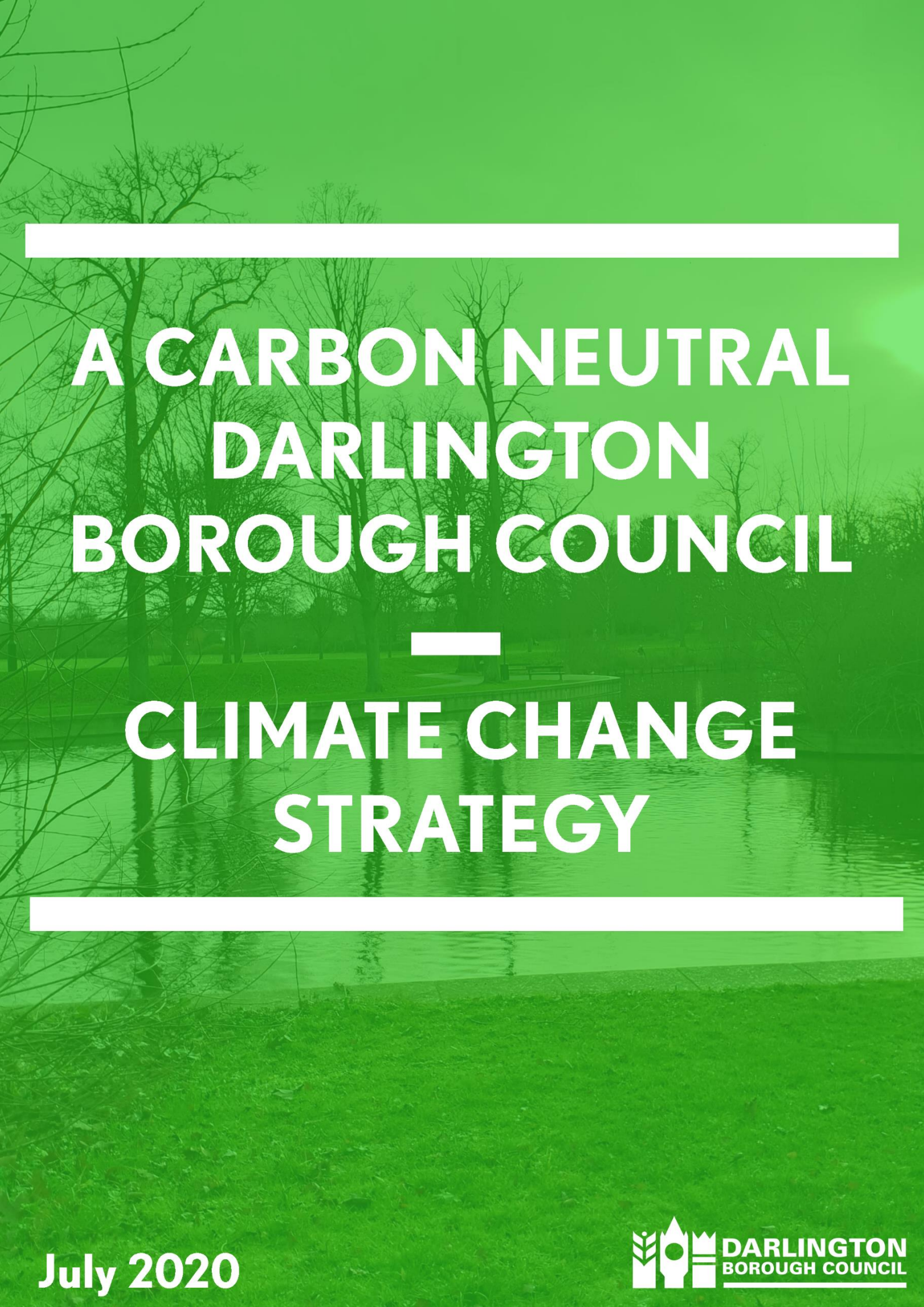


A CARBON NEUTRAL DARLINGTON BOROUGH COUNCIL

CLIMATE CHANGE STRATEGY

July 2020

DARLINGTON BOROUGH COUNCIL

Contents

A CARBON NEUTRAL DARLINGTON BOROUGH COUNCIL

CLIMATE CHANGE STRATEGY

Introduction

1. The 2018 report from the United Nations Intergovernmental Panel on Climate Change concluded that without substantial efforts to curb greenhouse gas emissions over the next decade we are likely to face severe, widespread, and irreversible impacts on societies. Human activity has already led to 1°C of global warming from pre-industrial levels, which is resulting in damaging impacts on lives, infrastructure and ecosystems that are apparent today. As a result, we need to both mitigate and adapt to climate change.

2. The predicted impacts of climate change in Darlington include more frequent and intense flooding, drought, episodes of extreme heat and stormier conditions. These impacts are expected to lead to an increase in heat-related deaths, particularly amongst the elderly, damage to essential infrastructure, reduced availability of drinking water, increased cost and scarcity of food, disruption to supply chains and service provision, sea level rises, greater coastal erosion and impact on habitats from rising temperature and weather events and from invasive species. Today, we are already seeing some of these changes.

3. This strategy focuses on our plans to both mitigate and adapt to climate change.

4. In July 2019, Members acknowledged the threat of climate change and passed a motion committing the Council to reach net zero carbon emissions by 2050. As part of this commitment we have developed this strategy to set out the baseline of our own carbon emissions and identify the key actions and intervention measures required to meet this commitment. We also set out what measures we will take to deal with unavoidable impacts of climate change.

5. The strategy is based on previous work to reduce our emissions. A carbon management plan was produced in 2010, which committed the Council to reducing its emissions by 25% by 2013/14 from 2008/9 levels. A climate change action plan was also produced.

6. Since 2010 we have upgraded lighting in council buildings and streetlights and installed solar panels on the Town Hall roof. We also installed combined heat and power for the Dolphin Leisure Centre.

7. Since then the size of the corporate estate has increased and improvements in monitoring have meant that our electricity use has increased. However, as a result of work already undertaken, we have successfully reduced our corporate carbon emissions by 37% (as of 2018/19). Despite these successes we understand that we need to lead by example and do more, faster. This strategy acknowledges this.

8. This strategy is therefore not a starting point but nor is it definitive and comprehensive in defining all future action. It concentrates on those emissions we can measure and have direct control over. In time, as our ability to measure and quantify emissions in wider areas of activity increase, so will the scope of our strategic approach. Of course, as a leader within our community we recognise our role in encouraging wider action, so we will use our influence and experience to inspire action across the borough.

9. As we continue to develop our work programme, we know that everything we do must include a carbon impact assessment. There will, of course, be capital and revenue implications of taking action. Plans going forward will include a cost benefit analysis so that we can prioritise those actions that will have the greatest impact whilst putting in place a funding package for future continuing progress towards our target.

10. The strategy will be reviewed regularly so that we can embrace improvements in technology and any changes in government policy.

Carbon Management Strategy

Principles for action

11. There are four core principles which underpin the actions within this strategy and are critical to our successful delivery of the goal of us mitigating climate change. These principles should be considered as an overarching hierarchy for action, and will set the direction for future work, and determine which actions are brought forward first. The actions we choose to take will also see co-benefits: cleaner air, improved health and wellbeing etc. and we should ensure that we identify and account for these additional gains.

    (a) **Reduce our overall energy consumption**
    The most effective and simplest action to reduce our carbon emissions is to reduce our energy consumption. Not only will this save us carbon, but also generate revenue savings from a reduction in our energy bills. There are three ways we can achieve this:

        (i) **Increase the efficiency of our estate**
        (ii) **Proactively manage our buildings to reduce energy demand**
        (iii) **Train staff to be carbon literate so they change their behaviours.**

    (b) **Reduce our demand for fossil fuel-based energy**

        (i) **Move away from gas heating**
        Decarbonising heating will be one of the key challenges we have to overcome to meet our net carbon zero target. Conversion of the existing gas network to hydrogen, or green gas is not considered likely to occur within our timeframe, (although a wider UK Government strategy for heat is expected this year). Reducing our gas demand will be key to achieving our target.

        (ii) **Increase on site renewables**
        Moving away from gas for our heating, and a shift towards electric for

our transport will mean an increase in our reliance on electricity. The National Grid predicts that it will be able to provide periods of 100% renewable energy by 2025. Decarbonisation of the national electricity grid has increased rapidly in recent years, with 2019 being the first year that renewable energy sources provided more electricity to UK homes and businesses than fossil fuels. However, it is unlikely that the electricity grid will be 100% renewable, and net carbon zero before 2050.

The tariff that the Council is signed up to through the North East Procurement Organisation (NEPO) is currently providing zero carbon electricity generated through nuclear energy. However, we should future proof our ability to continue using zero carbon electricity. Generating renewable energy on site will not only help us reach our target but will also help us reduce our operating costs over the longer term, as electricity prices are projected to continue to increase, regardless of the source.

(iii) **Support renewables with batteries**
Much of our power demand will inevitably take place when renewable sources cannot be guaranteed (during the evening, or on cloudy days). Batteries can help us maximise the use of energy that we generate ourselves and save money by reducing the amount of energy we have to buy from the grid.

With the added option of selling excess energy back to the National Grid, combining solar panel installations with battery storage also has the potential to generate revenue, and contribute to our third principle.

We will continue to monitor upcoming technologies, which may also allow us to store excess energy from renewable sources.

(c) **Contribute to a greener grid**

(i) **Increase off-site renewables**
As buildings and vehicles switch away from the use of fossil fuels and towards electricity, it becomes increasingly important to ensure that electricity is supplied from renewable sources. This is important for several reasons, including reducing pressure on grid infrastructure, ensuring security of supply, and protecting Darlington consumers from rising electricity prices.

(d) **Sequester carbon**
We would prefer not to rely on offsetting to achieve our target but to reduce our emissions so that offsetting is only required for a small proportion of our emissions.

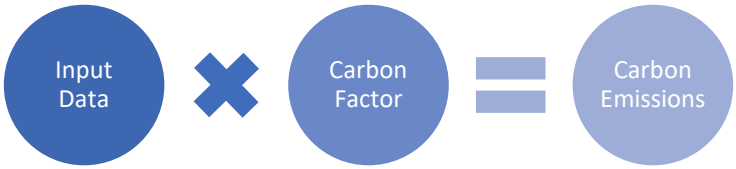
When considering offsetting projects, we want to secure the widest benefit for Darlington, so we will invest in local projects that also deliver wider social and environmental benefits. For example, the Council has committed to planting at least 10,000 new trees over the next five years and will support

community groups to plant trees in the Borough. We will also be exploring opportunities for enhancing our roadside verges and open spaces.

We are a member of the Tees Valley Local Nature Partnership Steering Group and are working with them to protect and enhance our natural capital.

Methodology

12. The carbon footprint has been built from numerous data sources, with a specified calculation methodology applied to each.



13. We have and will continue to use the UK Government GHG Conversion Factors for Company Reporting, which are issued jointly by the Department for Business, Energy and Industrial Strategy and the Department for Rural Affairs.

14. To establish the baseline, conversion factors for 2010/11 were used.

15. Conversion factors will be updated annually in August, following the release of new data sets from UK Government.

16. If at any future point in time, additional data becomes available to us, we will include this within our reporting, but we must ensure that only robust data which is derived from an accurate and credible source is used to support our emissions calculations. If the quality of data deteriorates over time; or if it becomes unavailable, it will be reviewed, and a decision made on whether to exclude it from the baseline and future emissions targets.

17. Where possible emissions will be reported on a quarterly basis over the course of each financial year (April – March). A commentary to explain the data and provide an indication of progress on specific project elements will also be provided.

18. Where emissions data is not available on this frequency, then data will be reported annually, but a commentary with qualitative data will be provided on a quarterly basis.

Our carbon emissions

Our target

19. The Council will achieve net zero carbon emissions across our own estate by 2050.

Scope

20. The scope of the Council's carbon reporting includes areas where carbon emissions are significant, where there is the ability to control and directly influence, to deliver change, and where there is robust data to demonstrate progress. This includes the:

    (a) Corporate estate.
    (b) Energy for Street Lights, Traffic Lights and Signs.
    (c) Business mileage.
    (d) School estate for those schools still under LEA control.
    (e) Residential/care homes/communal areas of flats.

21. Across these areas of our operations emissions relating to the following sources have been included:

    (a) Power (Electricity).
    (b) Heat (Gas and Oil).
    (c) Mileage.

22. Going forward we plan to include water (supply and sewerage). At present, robust data is not available to include in our baseline.

Corporate Estate

23. All buildings which we operate council services from, or which we lease, but retain responsibility for the bill management and payment are included within the scope. This includes:

    (a) Town Hall.
    (b) Central House.
    (c) Leisure Centres.
    (d) Theatre.
    (e) Community Centres, Children's Centres.
    (f) Gypsy and Traveller sites.
    (g) Highway Depots.
    (h) Cemetery and Crematorium.
    (i) Salt Barns.
    (j) Libraries and Museums.
    (k) Allotments.
    (l) Car Parks.
    (m) CCTV.
    (n) Leased buildings where we retain responsibility for bill management and payment.

24. We will be reporting our electricity (scope 2) emissions using both location-based and market-based reporting as is considered good practice.

    (a) A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data).

(b) A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice).

Managing future changes

25. If the corporate estate changes during the reporting period new emissions will be added or removed at that point. The baseline will not be adjusted. Any changes will be explained in the appropriate year's commentary.

26. At present, we are unable to report the carbon footprint of our water supply or wastewater. A new contract means that data from 2020/21 will be added to the same management system as our electricity and gas, so will become available at a later date.

Streetlights, Traffic Lights and Signs

27. Although primarily consisting of the energy to power streetlights across the Borough, this category also includes power to light bridges and subways, operate signs and signals, and to power other fixed highway electrical equipment such as subway pumps.

Managing future changes

28. If the powered assets across our highway changes during the reporting period new emissions will be added or removed at that point. The baseline will not be adjusted. Any changes will be explained in the appropriate year's commentary.

Business Mileage

29. Business mileage is made up of data related to:

    (a) Grey Fleet – miles travelled by staff in their own car for council purposes.
    (b) Corporate Fleet – miles travelled by staff in allocated, buses and minibuses owned by the Council, providing services to residents.

30. Excluded from this baseline are miles undertaken by contractors or suppliers, public transport and air travel.

Managing future changes

31. The base line in 2010/11 uses vehicle mileage to determine carbon emissions as this is the only data, we have available. However, in order to eliminate assumptions of vehicle and plant type and size, from 2018/19 onwards we will use fuel burned to determine CO_2 emissions of fleet vehicles.

32. Public transport is currently dealt with through two separate and incompatible systems. Some is claimed through expenses, which does not give us distance, so we can only measure reduction or increase in actual costs. The other mechanism through the Travel & Accommodation system tells us where the journeys are from and to. It does not necessarily specify return journeys, nor does it tell us the length of that journey. Considerable time has been spent

determining whether it is possible to use AA journey planner to determine the equivalent road mileage between the two points. This will be an estimate of distance only and we would also need to make assumptions of whether the journeys are single or return. Because we are unable with the current system to be sure that the data is robust, we are treating this as out of scope. Should the system of booking rail and flights be changed so we can be sure of the data it will be added at that point. The baseline will not be adjusted. Any changes will be explained in the appropriate year's commentary.

School Estate

33. The majority of schools in the Borough are now academies. As such, we have limited influence on their energy use. A number receive their electricity through the Council's contract, but no review of energy use is undertaken.

34. The Council has visibility of the utility bills for the schools within the contract, but not for any schools outside of that. Therefore, the data for the school estate relates only to those schools and nurseries still under LEA control.

Residential/Care Homes/Communal Areas

35. The scope of our target covers those areas where we retain responsibility for bill payment or management. Therefore, we will include communal areas in flats but not the individual flats as the tenants manage their own energy bills.

Renewables

36. Renewable generation will be reported alongside our carbon emissions.

37. Where the Council has solar panels on a Council owned and used building, energy is directly taken and used from this renewable source. This reduces the overall grid energy consumed, and therefore the Council sees a reduction in carbon emissions. We will report the amount of renewable energy generated across all our assets alongside our carbon emissions.

Out of scope

38. Emissions from the following sources are excluded from reporting due to lack of data:

    (a) Energy use in Council housing where we do not retain responsibility for bill payment or management.
    (b) Commuting.
    (c) Disposal of waste from buildings.
    (d) Business mileage using public transport.
    (e) Procurement.

39. The Social Value Act requires us to take account of economic, social and environmental impacts of procurements. The Council is applying the Local Government Association's Themes Outcomes and Measures (TOMs) calculator to its large formal tenders. This includes savings in CO_2 emissions. Emissions from procured goods and services are likely to be significant, and work will be

needed to fully understand where these emissions lie.

40. We are not able to separate the waste that Council buildings produce from general waste from residents and businesses in the Borough. We will be looking at the emissions generated by disposal of waste, to see if data is robust enough to include here.

41. We will report on a qualitative basis, any actions that have been taken by DBC to achieve carbon reductions against these areas. We will use EPC certificates to monitor progress on Council housing.

Data Ownership and Management

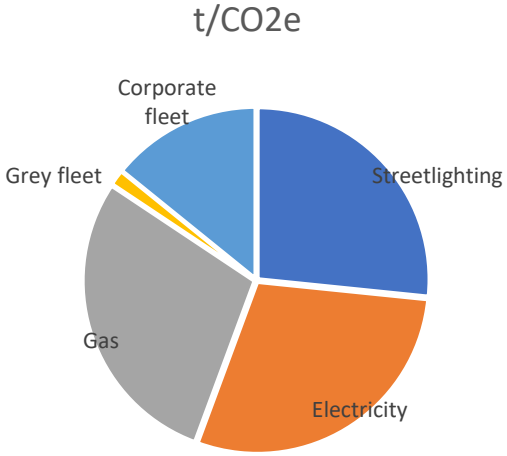
Element	Data Type	DBC Source	Frequency of collection	Responsible Team
Built Estate	Billing Data (Gas and Electricity: kWh)	Utility consumption data and costs		Property Services
Street Lighting (includes unmetered CCTV, traffic signals, car park lighting, illuminated signs, air pressure system, street lighting, car park ticket machines and weather stations)	Largely unmetered supply so usage is estimated by inventory and usage pattern (kWh)	UMS certificates	Quarterly	Street Lighting
Fleet	Fuel usage	Fuel usage		Waste & Transport Services
Business Travel	Distance and mode of transport (miles)	Grey Fleet Mileage collected via SAP system		Xentrall
Renewables	Generation Data (kWh)	Generation reports		Property Services

Baseline

For 2010/11 our baseline is 13,100 CO_2e

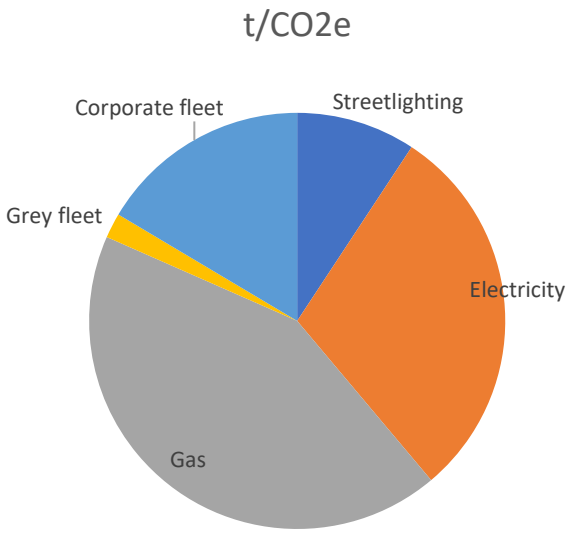
42. The emissions are attributed across these categories as follows:

    (a) Streetlighting.
    (b) Corporate estate.
    (c) Business miles in own car (grey fleet).
    (d) Fleet mileage.



Progress to date

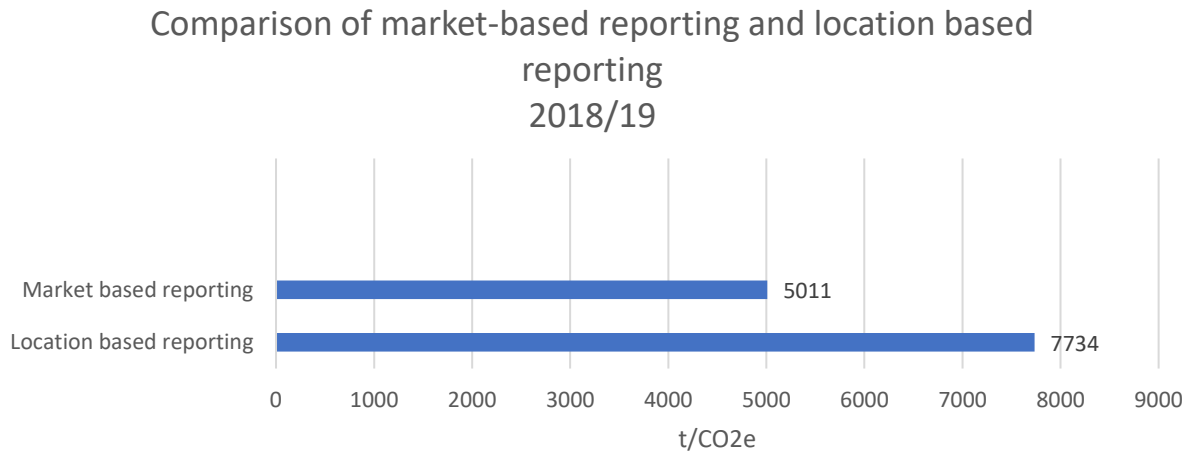
Area of operation		2010/11	2018/19	Carbon reduction
		t/CO_2e	t/CO_2e	t/CO_2e
Streetlighting		3487	760	2727
Corporate estate	Electricity	3802	2426	1376
	Gas	3761	3503	258
Business travel	Grey fleet	193	159	34
	DBC Fleet	1857	1349	508
Total		13100	8197	4903



By the end of 2018/19 our carbon footprint is 8197 tonnes CO_2e using location-based reporting.

Using market-based reporting, which takes account of our zero-carbon electricity tariff, our carbon footprint is 5011 tonnes CO_2e.

43. **Renewables**: 1008 kWh of renewable energy has been generated by installed solar PV from December 2018 to March 2019.



44. **Explanation of data**
In some areas our energy use has increased. The Hippodrome Theatre has doubled in size since 2010/11 and is putting on more shows and more activities.

45. There has been an increase in the numbers of CCTV cameras, notably on Victoria Road. There are also some incidences where payments for areas such as Extra Care Schemes and communal areas, metered street lighting and kiosks have been centralised under the Corporate Landlord responsibility. The Dolphin Centre upgrade has meant that many areas which previously were not functioning (and so there was no energy being used) are now working properly.

Energy improvement works

46. Actions already taken include:

    (a) Significant work over three years to upgrade all street lighting to LED and replacing lit bollards with non-illuminated reflective bollards. This work has improved energy efficiency, reduced carbon consumption and significantly reduced maintenance costs.
    (b) Ongoing work to improve energy management in Council buildings. 10kWh PV has been installed on the Town Hall roof and CHP is in place in the Dolphin Centre.
    (c) Energy supplies are procured through the North East Procurement Organisation and the Council has switched to EDF's Blue for Business tariff, which is a zero-carbon tariff.

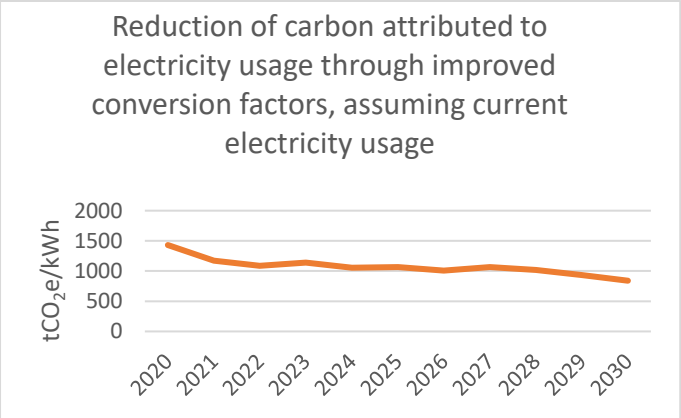
Renewables

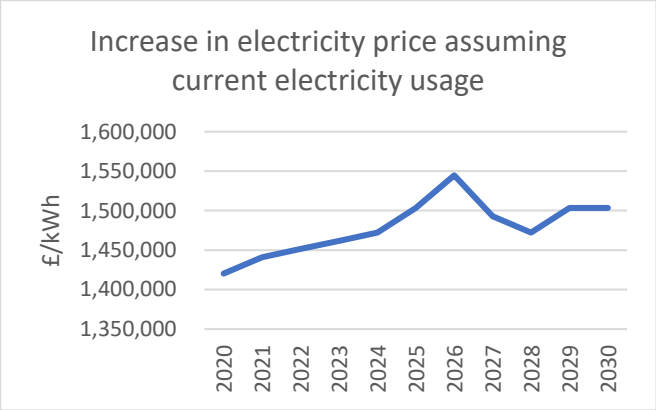
47. 10kWh Solar panels have been installed on the roof at the Town Hall. A further array will be installed on Feethams House on completion of the build.

Projections to 2050

48. The graph below shows the potential change in carbon emissions from our electricity usage, that would occur in a business as usual scenario.

49. The reduction that this graph shows is primarily driven by Government commitments and policies to further decarbonise the national electricity grid. If the decarbonisation occurs in line with this then we can reduce our emissions without any action from us. However, we need to be prepared that this rate of predicted change may not be achieved. We also need to prepare for the unlikely event that the current zero carbon tariff we are currently purchasing becomes unavailable.





Adaptation Strategy

Principles for action

50. Darlington Borough Council's ambition is for a carbon neutral council by 2050 and plans are being put in place to achieve that. However, we are still at risk from unavoidable climate change resulting from greenhouse gas emissions already in the atmosphere. It is vital for our residents that we can continue to deliver our services and for our staff to be able to do their jobs in a safe environment. Our business continuity plans provide us with the tools to deal with emergencies but planning for future scenarios now will mean that we will not have to trigger those plans so often, we will save money over time if we invest in our future now and, most importantly, our most vulnerable residents will still receive the services they rely on.

51. There are three strands to this element of work:

    (a) Ensure the Council adapts its services to climate change.
    (b) Signpost businesses to information on how they can adapt.
    (c) Support residents in simple changes they can make.

Communication Plan

52. A communications plan will be developed with the Communications Team, utilising all mechanisms for engaging with staff and informing residents about our activities A dedicated email address (climate@darlington.gov.uk) has been set up.

Potential work areas

53. The following potential actions give an idea of the work areas to be considered. Each of these will be subject to review and feasibility studies before they are

taken forward into the action plan.

Existing Built Estate

54. Emissions from our built estate makes up almost 75% of our emissions. Tackling this is critical to us achieving our target.

55. **Potential Actions**
    (a) An Energy Efficiency Programme is developed and rolled out across our estate with priority and urgency in the first 3 years of this plan. This will include methods of capturing waste heat from energy use in our buildings.
    (b) Hybrid heat pumps or where possible and appropriate heat pumps will be installed in properties as standard from now, with a wider roll out of "reducing need for fossil fuel" measures.
    (c) An additional budget to upgrade the carbon saving from planned and identified maintenance work.
    (d) Improve heat efficiency of existing Council houses.
    (e) Additional maintenance budget is allocated to ensure that new measures can be maintained at the recommended schedules to ensure they deliver the savings predicted over their lifetime.
    (f) We will address the risk that there is likely to be a national shortage of skills and resources available to deliver a programme of this scale, particularly when seen alongside similar ambition and demand from other local authorities and business.

New Build

56. It is vital we do not invest in technologies now that leave us with a carbon legacy. Ambitious new build targets need to be central to our approach for meeting our target.

57. Our approach to new build varies whether the building is a school or a corporately owned asset.

Schools

58. When building and extending schools, we cannot act unilaterally. New schools are largely funded from central government, who also set the standards that they are prepared to pay for. These standards reflect current building regulations and fall short of net carbon zero. Any costs to upgrade to building standards specified by government must be found by either the school or us.

Council housing

59. DBC is one of the few Councils to retain ownership of its council house stock and we have an ambitious target to build around 100 new houses per year over the next 10 years. The climate motion passed in July acknowledges the role of local authorities to lead the way and committed us to stepping up our efforts. New build council housing presents a unique opportunity to do this.

60. **Potential Actions**
    (a) We design and build net carbon zero buildings.

(b) We require and analyse whole life costing during the building design process.
(c) Set a clear and consistent policy so that the prioritisation of carbon reduction is maintained throughout the building design and build process.
(d) Incorporate district heating schemes into developments.
(e) Revise our corporate building standards to ensure they reflect and deliver the processes within this strategy.
(f) Buildings that are currently designed but pre-construction are reviewed to ensure the principles in this strategy are applied.
(g) Lobby Government to set the standard for schools' design at net carbon zero and provide adequate funding to meet this requirement.
(h) For every new project conduct a gap analysis to understand the capital and revenue implications of achieving net carbon zero design and assess how any additional measures could be delivered.
(i) Additional maintenance budget is allocated to ensure that the both new and existing buildings are maintained to a high build standard, to ensure they deliver the operational energy savings predicted over their lifetime.
(j) Include a request in planning applications for expected carbon impact of developments.

Renewables

61. To meet the net zero carbon target increasing the amount of renewable energy that we generate is paramount.

62. To deliver at this scale there not only needs to sufficient funding, but also a presumption in favour of renewables that significantly reduces or eliminates the current rate of return, recognising that the carbon reduction we can accrue from renewable energy is of significant additional value, and is required to meet the carbon neutral target.

63. We also need to ensure that we maximise the use of any renewable energy we generate through the use of complimentary battery technology systems. We need to be integrating renewables with batteries and other SMART control systems, having a whole systems approach to delivering low carbon implementation measures.

64. **Potential Actions**
    (a) We adopt a presumption in favour of renewables and batteries across our whole estate, integrating these technologies as standard in all capital projects.
    (b) Our building design process takes a whole system approach to low carbon technologies, exploring all options for energy standards, such as Passivhaus standards.
    (c) Additional staff are recruited to plan and deliver this programme.

Utilities Management

65. Delivering the principles and actions outlined above will mean an ever increasing reliance on electricity as our sole power source. Electricity is already more expensive than gas to buy, and BEIS predictions continue to show an increase[i].

66. To protect us from any future exposure to cost it is essential that we remain proactive in our approach to utility purchasing to secure the very best rates that we can.

67. We are currently on a zero carbon tariff for our electricity, but we need to continue to be aware of, testing and benefiting from any new advances made.

68. **Potential Actions**
    (a) Proactively manage utility purchasing to reduce the Council's exposure to risk.
    (b) Look for innovative solutions to help us reach our target.

Our Fleet

69. Although emissions from our fleet currently represent only a small proportion of our entire emissions, it is important that we take action to address these emissions if we are to meet our net carbon zero target.

70. We will be working with the rest of the Tees Valley Combined Authority to develop an Electric Vehicle Strategy. It is likely that due to the nature of our fleet, with several specialist, heavy duty vehicles such as refuse trucks, that electric is unlikely to provide a viable option within the timeframe. For these vehicles, we will explore alternative fuels.

71. **Potential Actions**
    (a) Develop and deliver a fleet transition plan, including infrastructure provision, to move the Councils fleet to low emission.

Staff Transport

72. Staff transport, particularly grey mileage is an area for potential efficiency savings. Upgrading the Travel & accommodation system may result in efficiency savings through central purchasing.

73. **Potential Actions**
    (a) Review the corporate business travel policy and ensure that low carbon methods of travel are given priority.
    (b) Ensure there are appropriate mechanisms in place to gather data and to oversee and if necessary, enforce this policy.
    (c) Explore a salary sacrifice scheme for low emission/hybrid/electric vehicles with the potential to move to electric vehicles only, once infrastructure is in place.

Training & Staff Awareness

74. Every member of staff across the Council can contribute to achieving the net carbon zero target. By changing day to day decisions and behaviours we can reduce the amount of energy we consume and the carbon we emit from travel. The impact of simple actions of switching off lights and equipment, choosing to have an online meeting rather than travelling, or walking or taking the train rather than driving can, when done by everyone have a big difference.

75. We need to ensure that all our staff recognise the opportunity, understand the importance of change, and act to make a difference.

76. **Potential Actions**
    (a) Develop a staff engagement programme that focuses on developing the knowledge and skills of our staff so that they can develop their own actions to reducing carbon emissions.
    (b) Develop climate champions network.
    (c) Ensure that this training is part of the essential skills training for all staff through Academy 10.
    (d) Explore feasibility of the JUMP programme to encourage sustainable behaviours.

Procured Goods and Services

77. We spend approximately £120 million pa in the private and voluntary sector. This value of spend presents a significant opportunity and responsibility to influence and catalyse change within our supply chain.

78. The Social Value Act 2012 came fully into force on 31st January 2013. It means that for the first time, public bodies in England and Wales are required to consider how the services they commission and procure might improve the economic, social and environmental well-being of the area.

79. Under the Council Contract Procedure Rules, the Award Criteria for all quotes over £10k and tenders over £100K must ensure that a suitable proportion of the evaluation criteria to be based on Social Value (unless there are appropriate reasons why Social Value should not apply).

80. For contracts greater than £100k we use the National Themes Outcomes and Measures (TOMs) Framework for Social Value Measurement. The Framework includes measures to reduce climate impacts and air pollution. The information gathered includes carbon reductions, numbers of miles driven and numbers of miles saved through particular actions.

81. For other contracts, we need to understand where the carbon sits within our supply chain and how this is currently being managed. We need to identify the contracts that have high carbon emissions and seek continual improvements in areas of high risk.

82. When conducting new procurements, we will raise the standards that we expect from our suppliers in relation to carbon performance, building in robust criteria to our tender assessment and contract management processes, assigning more importance to this key area when evaluation.

83. **Potential Actions**
    (a) Conduct a carbon risk assessment on our existing contracts, and seek improvements in areas of high risk.
    (b) Review contract management processes to ensure that we continue to scrutinise the suppliers carbon performance.
    (c) Review the current criteria for carbon in the procurement process, including reviewing of the weighting assigned to carbon during the evaluation process.
    (d) Use taxi licensing to influence switching off engines when stationary and move to electric vehicles.
    (e) Work with bus companies to encourage them to upgrade their fleets where appropriate.

Financing Carbon Reduction

84. We need to develop a realistic and viable funding route to deliver this programme, whilst still funding key services facing the most demand and which serve to protect those most in need.

85. Historically we have made use of invest to save funds, such as Salix to support energy efficiency programmes. Although we will continue to do this, the fund available is limited, and would not be sufficient to fund the works set out in this programme. Some ECO funding is still available, and we will need to explore partnership funding.

86. We will take advantage of any new funding streams as they become available, but we also must accept that we will need to invest our own capital funds. In practice this will mean that we deliver fewer, but better projects.

87. **Potential Actions**
    (a) Develop a funding solution to support the workstreams outlined in the programme.
    (b) Lobby Government for funding to be available, for example, the long-awaited UK Shared Prosperity Fund, and allocated on a fair basis.
    (c) Investigate the practicality of issuing bonds.

Reporting

88. We will publish a full public report outlining the progress made against our net carbon zero target on an annual basis. The key performance indicator will be total tonnes of carbon.

89. We will publish quarterly update reports highlighting particular achievements against work packages.

Governance

90. Establishing a strong and robust governance framework to this work is another critical success factor.

91. The scale and magnitude of the change required to deliver this target means that overall responsibility needs to sit at the Executive Leadership Team level or above. However, a variety of key services need to own and drive forward this agenda. Lead Officers will be tasked with investigating mechanisms and cost benefits to reducing their own carbon footprint in each own department.

92. The table below sets out the Senior Responsible Officers and Delivery Leads for the work packages outlined above.

Carbon Work Package	Senior Responsible Officer	Delivery Lead
Net Carbon Zero Target	Ian Williams	Mark Ladyman
Existing Built Estate- Corporate Buildings	Pauline Mitchell	Kelvin McDade
Existing Built Estate - Housing	Pauline Mitchell	Cheryl Simmons
New Build - Housing	Pauline Mitchell	Veruta Barlow
New Build – Capital	Dave Winstanley	Brian Robson
Street Lighting	Dave Winstanley	Steve Pryke
Renewables	Pauline Mitchell	Cheryl Simmons
Utilities Management	Pauline Mitchell	Kelvin McDade
Our Fleet	Ian Thompson	Brian Graham
Staff Transport	Dave Winstanley	Sue Dobson
Staff Training	Elizabeth Davison	Helen Whiting
Procurement (inc. supply chain)	Luke Swinhoe	Luke Swinhoe
Finance	Elizabeth Davison	David Grieveson
Reporting	Mark Ladyman	Margaret Enstone
Communications	Neil Bowerbank	Andy Walker
Governance	Luke Swinhoe	Hannah Fay

Existing Governance Arrangements

93. Within the Council there are robust governance arrangements, both at an officer and member level, to oversee both key decisions, as well as significant actions for example, procurement and capital expenditure.

94. These existing mechanisms present an opportunity to ensure that alignment with the ambition and actions within this strategy are being realised.

95. **Potential Actions**
    (a) All cabinet reports, scrutiny reports, plans and policies will include a carbon impact assessment.
    (b) Ensure that sustainability appraisals include robust questions on climate change.
    (c) Ensure that existing governance arrangements ask for and provide an opportunity to scrutinise both net carbon zero ambitions and adaptation plans.
    (d) Review key policies to ensure alignment.

(e) Strategy and action plan formally reviewed every three years, with an ongoing watching brief

Adaptation

96. The actions above are aimed at meeting our ambition of a carbon neutral council by 2050. However, we are still at risk from unavoidable climate change resulting from greenhouse gas emissions already in the atmosphere. It is vital for our residents that we can continue to deliver our services, for our staff to be able to do their jobs in a safe environment and for those residents in council housing to trust that their homes are resilient to future climate change. Our business continuity plans provide us with the tools to deal with emergencies but planning for future scenarios now will mean that we will not have to trigger those plans so often, we will save money over time if we invest in our future now and, most importantly, our most vulnerable residents will still receive the services they rely on.

97. **Potential action**
    (a) Survey all services to understand where the risks are: what we do and how we do it, how will demand for services change etc.
    (b) Each service to determine what changes it can make.
    (c) Ensure climate change is included on the corporate risk register.
    (d) Use the ADEPT/LAAP Good Practice Guidance for Local Authorities to ensure DBC is at (at least) initial adaptation level.
    (e) Produce a business resilience manual.
    (f) Produce information for residents on what they can do and utilise existing mechanisms (i.e. community safety/emergency planning teams) to distribute.

[i] Fuel retail prices and grid electricity carbon factor, taken from BEIS Green Book Supplementary guidance 2019 (Data Tables: tables 4-8, table 1)
https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal

BEIS 2019 UK GHG Conversion factor for Gas is 0.18385 kgCO2e (0.00018385 tCO2e (Gross CV)
https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Year	Electricity price (£/kWh)	Gas price (£/kWh)	Grid electricity carbon factor tCO2e/kWh	Year	Electricity price (£/kWh)	Gas price (£/kWh)	Grid electricity carbon factor tCO2e/kWh
2020	0.137	0.0287	0.000138	**2036**	0.145	0.0383	0.00004
2021	0.139	0.0291	0.000113	**2037**	0.145	0.0383	0.00004
2022	0.14	0.0307	0.000105	**2038**	0.145	0.0383	0.00004
2023	0.141	0.032	0.00011	**2039**	0.145	0.0383	0.00004
2024	0.142	0.0336	0.000102	**2040**	0.145	0.0383	0.00004
2025	0.145	0.0352	0.000103	**2041**	0.145	0.0383	0.000039
2026	0.149	0.0357	0.000097	**2042**	0.145	0.0383	0.000038
2027	0.144	0.0365	0.000103	**2043**	0.145	0.0383	0.000036
2028	0.142	0.037	0.000098	**2044**	0.145	0.0383	0.000035
2029	0.145	0.0378	0.00009	**2045**	0.145	0.0383	0.000034
2030	0.145	0.0383	0.000081	**2046**	0.145	0.0383	0.000032
2031	0.145	0.0383	0.000072	**2047**	0.145	0.0383	0.000031
2032	0.145	0.0383	0.00006	**2048**	0.145	0.0383	0.00003
2033	0.145	0.0383	0.000056	**2049**	0.145	0.0383	0.000028
2034	0.145	0.0383	0.000048	**2050**	0.145	0.0383	0.000027
2035	0.145	0.0383	0.00004				