



Special Environment and Sustainable Communities Overview and Scrutiny Committee

Date Monday 16 March 2020

Time 9.30 am

Venue Committee Room 2, County Hall, Durham

Business

Part A

**Items during which the Press and Public are welcome to attend.
Members of the Public can ask questions with the Chairman's
agreement.**

1. Apologies
2. Substitute Members
3. Declarations of Interest, if any
4. Any Items from Co-opted Members or Interested Parties
5. Climate Change Emergency Update Report:
 - a) Joint report of the Corporate Director of Resources and the Interim Corporate Director of Regeneration and Local Services (Pages 3 - 14)
 - b) Presentation by the Principal Officer (Climate Change and Sustainability), the Carbon and Energy Analyst and the Senior Carbon Management Officer, Regeneration and Local Services (Pages 15 - 32)
6. Such other business as, in the opinion of the Chairman of the meeting, is of sufficient urgency to warrant consideration

Helen Lynch

Head of Legal and Democratic Services

County Hall
Durham
6 March 2020

To: **The Members of the Environment and Sustainable
Communities Overview and Scrutiny Committee**

Councillor E Adam (Chair)
Councillor O Milburn (Vice-Chair)

Councillors B Avery, A Batey, D Bell, L Brown, J Carr, B Coult,
R Crute, S Dunn, A Gardner, K Hawley, J Higgins, P Howell,
C Kay, L Maddison, R Manchester, I McLean, A Simpson,
P Sexton and M Wilson

Co-opted Members:

Mr T Bolton and Mrs P Holding

Contact: Paula Nicholson

Tel: 03000 269710

**Environment and Sustainable
Communities Overview and
Scrutiny Committee**

16 March 2020



Climate Change Emergency Update Report

Joint report of John Hewitt, Corporate Director of Resources and Geoff Paul, Interim Corporate Director of Regeneration and Local Services

Electoral division(s) affected:

Countywide

Purpose of the Report

- 1 To provide Members of the Environment & Sustainable Communities Overview & Scrutiny Committee with a progress report on the further development of the identified range of measures necessary to achieve the new targets for carbon reduction by the Council and countywide.

Executive Summary

- 2 The report provides members with detail of the current position in relation to CO₂ emissions in the Council and across the County, renewable energy capacity, the headlines from the Climate Emergency Consultation and the Action Plan recently agreed at Cabinet. This agreed an additional £3 million funding over two years (second year is subject to the Government's financial settlement) to support a total programme of £13.2 million of schemes to reduce Council emissions, and a countywide programme in excess of £50 million inclusive of external grants (secured and bid).
- 3 Current emissions from Council operations are 56,000t CO₂e, a reduction of 47% since 2008/09. In order to meet the new 80% reduction target emissions must be reduced to 21,471t CO₂e.
- 4 Countywide emissions in 2018 (most up to date data) were 2,266kt CO₂e (4.3t per capita) a reduction of 52% (and 54% per capita)
- 5 Arrangements have been made for members of the Low Carbon Economy Team, Environment Services to attend the meeting on the 16 March 2020 and provide a presentation focusing on:
 - 1 Outcomes of the Consultation
 - 2 Council Emission Targets
 - 3 Countywide Emission Targets
 - 4 Action Plan Projects

- Council
- County

Recommendations

- 6 That the Environment and Sustainable Communities Overview and Scrutiny Committee note and comment on the content of the report and presentation.
- 7 That the Environment and Sustainable Communities Overview and Scrutiny Committee includes in its work programme for 2020/21 further progress updates on the Climate Emergency Response Plan and the Carbon Management Plan.

Background

- 8 The Environment and Sustainable Communities Overview and Scrutiny Committee at its meeting on the 30 April, 2019 received an overview of the proposed approach in the drafting of a report to full Council scheduled for 17 July 2019 detailing how Council and County climate change targets may be met. The committee supported the approach and agreed to monitor the development of the Climate Change Emergency Response plan.
- 9 The Committee at its meeting on the 12 July 2019 when considering its future work programme, agreed to include in its future work programme for 2019/20, updates on progress made in relation to the development of a Climate Change Emergency Response Plan and an opportunity for members to feed into the consultation process on the plan.
- 10 The committee has received a progress update at its meeting on the 4 October where members were also provided with an opportunity to feed into the consultation process. Following consultation, officers developed the Climate Emergency Response Plan, which went to Cabinet for approval on the 12th February.

Overview

- 11 The report is structured into 4 elements, as outlined in the Executive Summary.

Outcomes from the Consultation

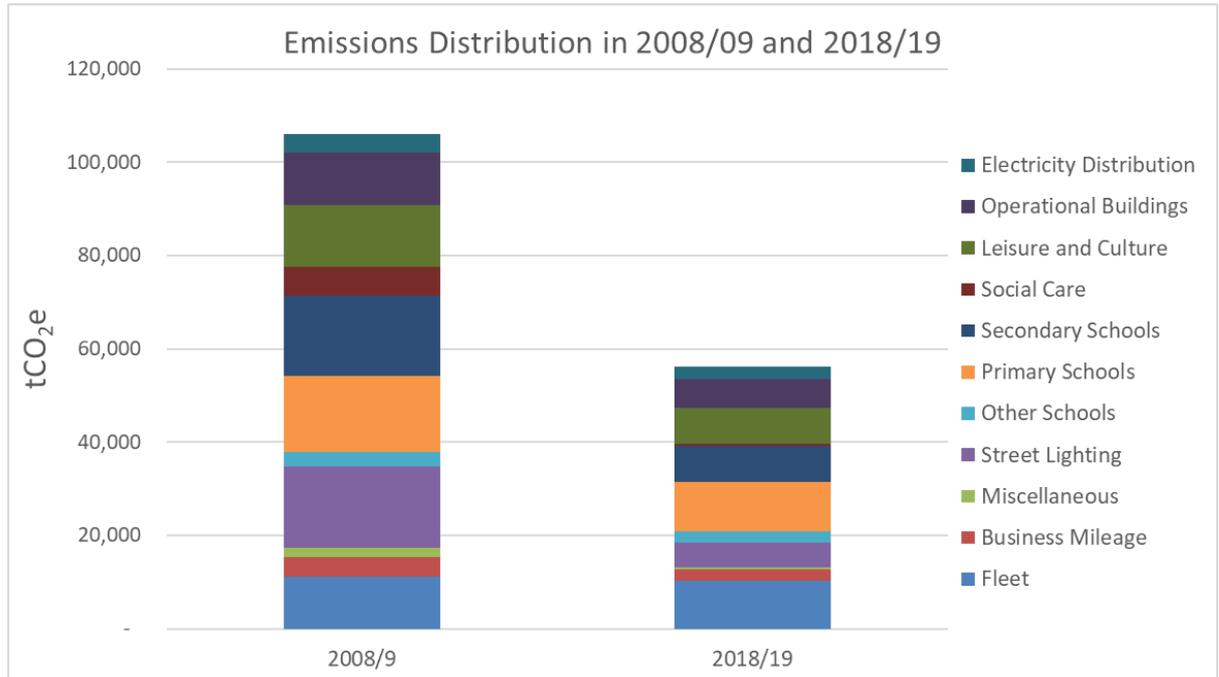
- 12 The consultation which took place in October 2019 was a great success with responses from Staff, Members, the general public and young people.
- 13 The staff survey had 502 respondents and was considered an important issue to staff. Staff concluded that the priorities for Carbon Reduction should be:
 - Reduce the need for staff to travel
 - Maximise renewable energy generation
 - Make new buildings – very low or zero carbon

- Upgrading the energy efficiency of our existing buildings came in at a close 4th place.
- 14 In terms of the Countywide Survey there were 523 responses. In response to the question about what our top priorities should be, the public thought we should concentrate efforts in the following areas:
- **52%** - woodland planting, peatland restoration or wildflowers;
 - **50%** - reduce waste and increase re-use, recycling and composting;
 - **44%** - increase in the use of County Durham's natural, renewable energy resources.
 - **44%** - improve walking, cycling and the use of public transport to be part of the everyday travel culture.
 - **39%** - Improve the Energy Efficiency of buildings
- 15 Appendix 1 is the Climate Emergency Response Plan which contains further details of the consultation outcomes.

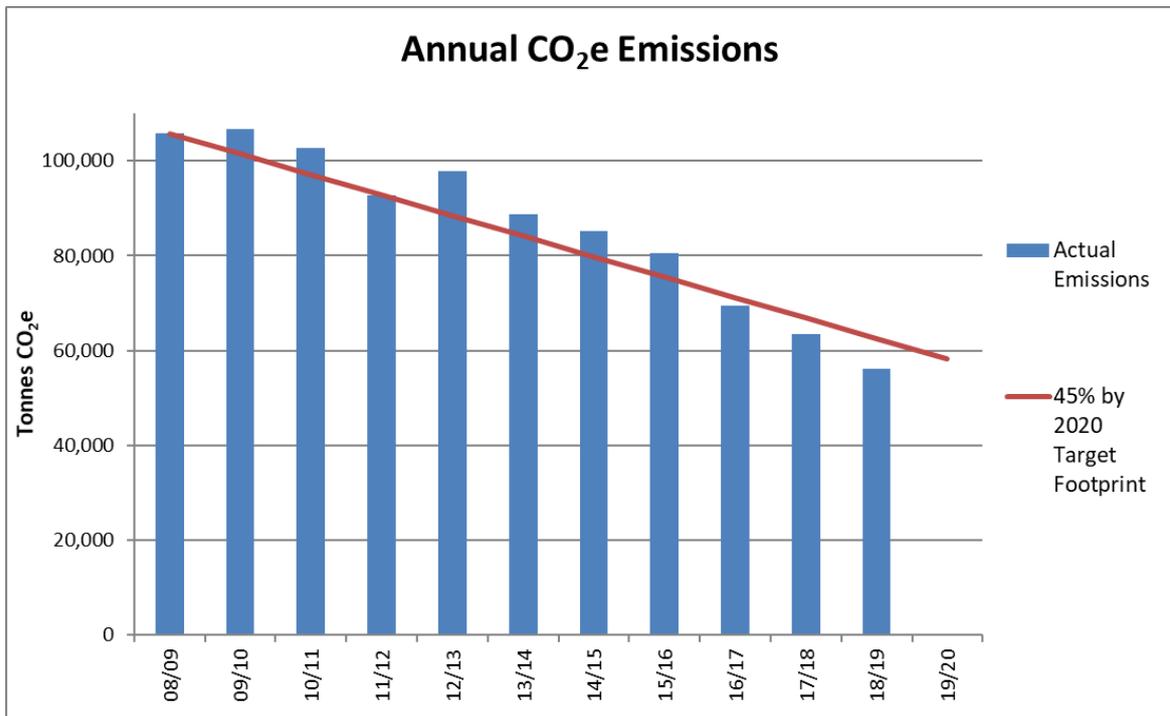
Council Emission Targets

- 16 Council emissions includes carbon emissions from electricity purchased from the grid, other fuel used such as for building heating or for transport, and other transport emissions such as from rail travel. The target for emission reductions overall, is to achieve an 80% reduction compared to 2008/09 levels (recently uplifted from 60% at Cabinet).
- 17 The Carbon Capital Board has continued to advise Council carbon reduction activities
- 18 The Council is continuing to make carbon savings across its portfolio with reductions coming from behavioural changes, building improvements and a

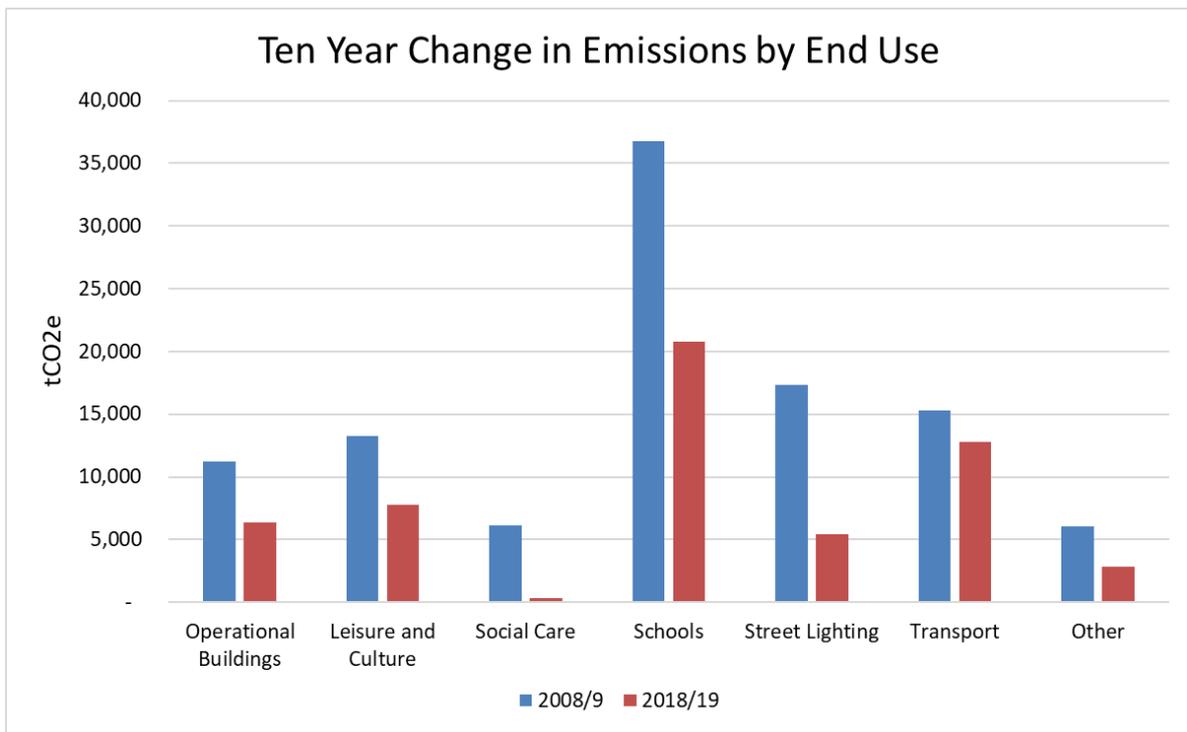
rationalising of the estate. The following chart show progress to date and a breakdown by source.



19 The graph below shows our progress since the baseline year of 2008/09. In March 2019 the 45% reduction target was achieved with a reduction of 47%. Figures on our carbon footprint for 2019/20 will be published in July 2020.



20 This comparison graph shows the change in carbon emissions between 2008/09 and 2018/19. The street lighting replacement project has made a huge contribution to our carbon reduction, and that a very significant part of our footprint is from our school buildings.

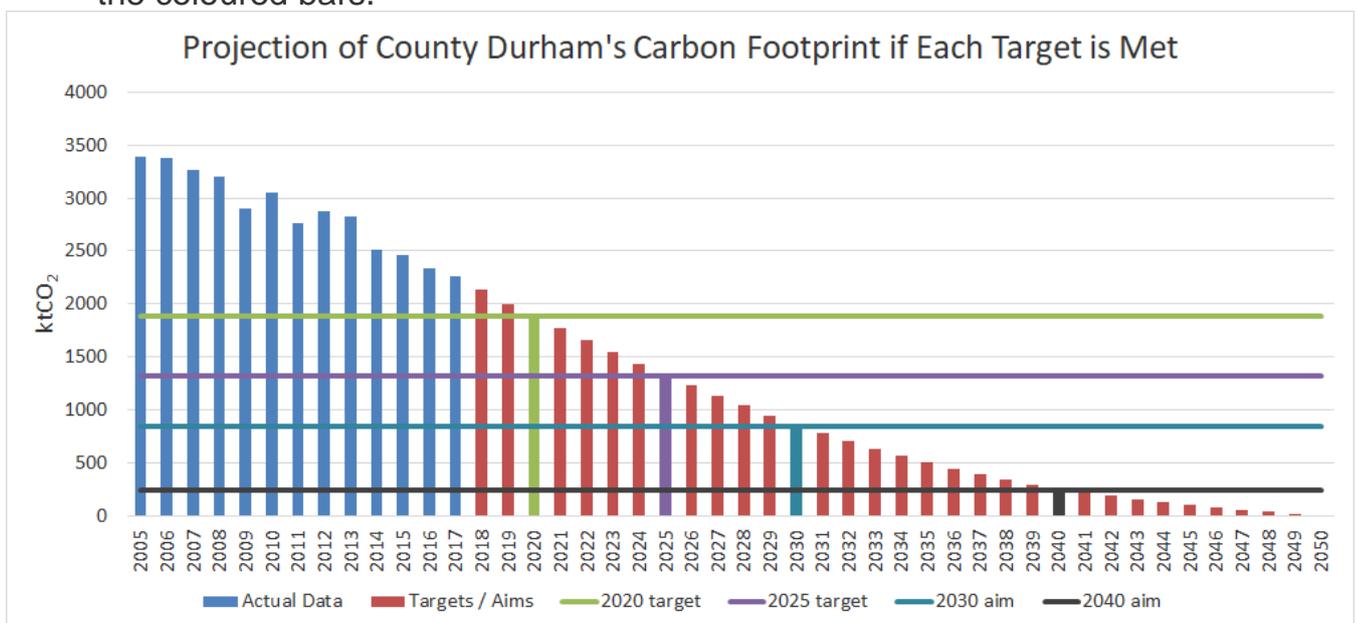


- 21 It is also important to recognise that some reductions have been due to other changes in our operations, such as the significant reduction in social care that is carried out in-house.
- 22 In 2018/19 emissions from Council operations reduced significantly and managed to exceed the 2020 target. This is as a result of several factors including;
- Decarbonising of the electricity grid - Electricity is not as carbon intensive as it was;
 - Street lighting LED replacements - Results of project are now visible;
 - Portfolio rationalisation - Reduction in the number of properties;
 - Energy efficiency projects in retained buildings;
 - Renewable electricity generation;
 - Monitoring and targeting work;
 - Relatively mild winters.

Countywide Emission Targets

- 23 The Climate Emergency target for the County to become Carbon Neutral remains 2050. Our next milestone towards reaching the target is that in 2020 County Durham's carbon footprint should be 60% less than it was in 1990. This has been raised from a previously suggested milestone of 55% in response to consultation. Following that, our milestone for 2025 is that the County's footprint should be 72% less than it was in 1990.
- 24 Statistics released in 2019 show that in 2017, County Durham emitted 2,266kt CO₂. This is a reduction of 52% against a 1990 baseline. Per capita emissions have reduced to 4.3t CO₂, a reduction of 54% from 1990 levels. Transport emissions in County Durham have continued to rise for the fourth consecutive year.

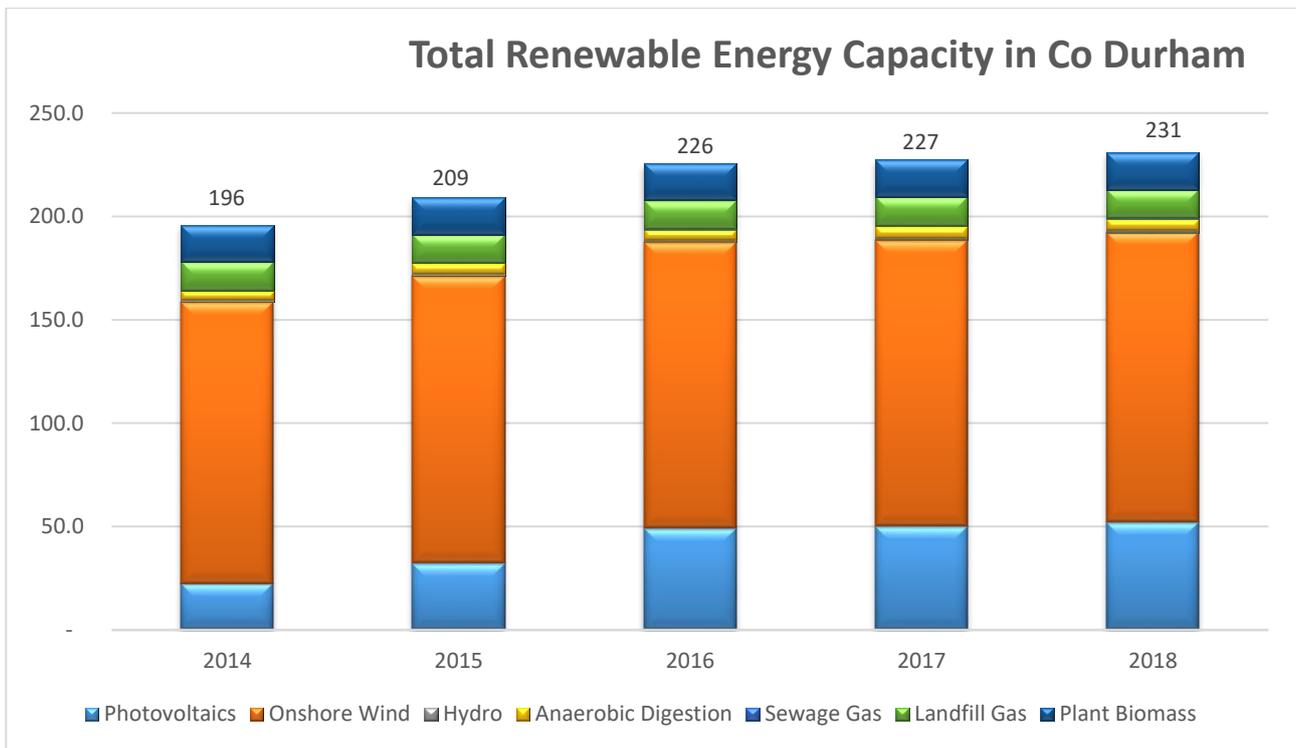
- 25 The following graph shows the actual annual carbon footprint of the county in blue, and our calculated target annual carbon footprints in red. These are estimated and will be updated when new data become available.
- 26 If we achieve the annual milestones shown in the graph below, we will release 20.8Mt of CO₂ by 2050. We hope to be able to improve upon this figure with help from government, business, and the public.
- 27 Cabinet agreed two targets in February 2020:
- 60% of carbon emissions to be eliminated or offset by 2020, and
 - 72% of carbon emissions to be eliminated or offset by 2025.
- 28 In addition, we have the aspirational aim of reaching:
- 82% of carbon emissions to be eliminated or offset by 2030, and
 - 95% of carbon emissions to be eliminated or offset by 2040.
- 29 In the graph below, the blue bars show our actual historic carbon footprint. The other bars show our targets or aims for the future, which are shown by the coloured bars.



- 30 Milestones and actions beyond the next two years will be adjusted based on our performance, the success of our projects, and the support and collaboration received from other organisations within the county as well as members of the public.

Renewable Energy Statistics

- 31 The graph below shows that across County Durham renewable electricity generation has increased by about 15% in the past 5 years, with the total amount of operational renewable energy capacity at 331MW. In terms of generation, the actual energy produced through renewables in County Durham, in 2018 505,699MWh of electricity was generated, with the majority from onshore wind.



32 There continues to be small growth in the Solar PV sector, but a decline in landfill gas. Actual generation varies throughout the year with differences in wind speed and solar irradiation having an impact upon generation.

33 Renewable energy generation does not count towards the overall reduction in the County's targets. It goes towards the decarbonisation of the electricity grid instead.

Action Plan Projects - Council

34 The full Action Plan is attached in Appendix 1 and has 38 action points, but highlights include:

- Development of Solar Car Ports at Council car parks
- Development of a strategic Building Energy Management System (BEMS)
- Development of second phase of LED lighting retrofits in Council buildings
- Final phase of LED street lighting
- Review of EVs and alternative fuel vehicles in fleet.

35 **Projects ongoing and completed in 2019/20 include:**

- Tanfield Lea Solar Farm has completed, potentially saving over 60 tonnes of carbon a year and supplying the electricity to the Council's data centre equivalent to 52 homes.
- Minewater - Work has advanced in assessing the potential for minewater heat to be used at the Louisa Centre in this £3.5 million project that has passed the first round in seeking European Funding to support;

- Light BEER (9 buildings supported)
- Theatrical Lighting at the Gala theatre
- Low Carbon Depot – Work is progressing on plans to turn the Morrison Busty depot into Low/Zero carbon with the installation of Solar PV, Batteries and energy efficiency works. The £9m project has passed round 1 approval.
- Launch of the Council’s electric pool bike scheme
- 241 or approx. 90% of County Durham schools are supported by the ECO2 Smart Schools Programme which engages pupils, teachers and support staff in reducing energy costs and carbon emissions through lesson plans, behavioural change and energy monitoring. A schools LED lighting retrofit project called ‘Enlighten’ is currently being piloted using external Salix Finance loans, the first school to be installed will be Crook Primary and Nursery School in March.
- Investigations are underway considering improving efficiency of lighting at our bus shelters.
- Decision made to purchase fully renewable electricity, which will not reduce our carbon emissions but can be considered as an off-setting action worth up to 19,000 tonnes CO₂e per year.

Action Plan Projects – County

36 Detail of all the Actions for 2020 - 22 can be found in Appendix 1, but highlights include:

- £500K Community Investment fund either in the form of a grant or a loan to support communities lowering their fuel costs through insulation and heating improvements.
- Potential Carbon Offset Fund whereby business or developers would pay to use Council land for tree planting or other ecosystem benefits in exchange for the carbon credits they receive
- Support for newly announced programmes such as Woodland Revival (involving 60 hectares of new planting approximately 150,000 trees), and the £1 million Urban Tree Challenge Fund with over 18,000 street trees; a substantial programme of community involvement, with 10,000 trees for each Area Action Partnership and a tree being planted for (and preferably by) each of the 69,000 school aged children in the county; schemes on different habitat types such as a £50,000 boost to existing measures for peatland restoration in the County, and similar support for the heritage coast in innovative kelp bed development, with carbon sequestration abilities three times that of tree planting.
- Develop and safeguard a portfolio of Council Owned land suitable for RE developments
- Install electric power points in 3 main marketplaces to replace diesel generators
- £2m of funding from the Warm Homes Fund to install new gas and renewable energy heating systems in off gas homes across the county, delivering over 200 new heating systems in 2020. Additional

funding was also drawn down to fund two officers to provide energy and fuel debt advice.

Projects ongoing and completed in 2019/20 include:

- **Housing Regeneration:** The Council's £2.5 million ERDF Solid Wall Insulation Innovation (SWIi) project, successfully completed its final domestic home installation in September 2019. The project addressed fuel poverty in 226 County Durham homes installing the latest technology in solid wall insulation in South Moor, Ramshaw, Cockfield and Ferryhill. Smart heating controllers were also installed into the homes to help monitor energy usage and save over 5,040 tons of carbon over the properties' lifetime.

The Housing Regeneration team continue to be successful in drawing down significant ECO (Energy Company Obligation) funding to support heating and insulation measures in fuel poor homes in the county. In the national ECO league table Durham were 4th across all UK local authorities in delivering insulation and heating measures.

The Council's Warm Homes award winning partnership work is working with the Clinical Commission Groups in 41 GP surgeries to tackle fuel poverty, excess winter deaths and 'cold' related ill health will be extended to include a further 31 North West Durham surgeries. This project gained national recognition by winning the prestigious national Heat Hero award presented to Dr Jonathan Smith at Westminster in January 2020.

- **Electric Vehicles:** The Innovate UK funded SOSCI project is funding 100 charging points across the County in places that do not have off street parking. The EV Working group is also working to establish a more coherent infrastructure
- **Sustainable Travel:** The Council has a Strategic Cycling and Walking Delivery Plan 2019-2029 which matches well with consultation findings and support for work in this area. A key area of work from the SCWDP is the implementation of Local Cycling and Walking Delivery Plans (LCWIPs) as recommended by DfT. LCWIPs are underway for 3 towns and will be complete by Sept 2020. The LCWIPs will create network plans and a list of priority schemes for infrastructure improvements. LCWIPs for the remaining 9 towns will also be developed if funding becomes available.
- An annual work programme of network improvements continues to be delivered with Local Transport Plan and other sources of funding. These are predominantly to enable short utility journeys. A scheme to carry out improvements to 3 sections of NCN1 in the east of the county is underway with £1million of DfT funding via Sustrans.

- The **Business Energy Efficiency Project (BEEP)**, has secured a further 3 years of ERDF funding, having already provided advice to 241 small businesses and saved 1,500 tonnes of CO₂e since 2017.
- **SME Power** - SMEs for a low carbon future. This new transnational Interreg Europe project addresses the importance of targeting energy efficiency in SMEs, sharing good practice from partners across Europe to influence future policy at EU and national level. We intend to focus on how to support micro-enterprises. Durham has been invited to take part because of our achievements to date through the BEEP project. Total project cost € 189,640 (€ 161,194 ERDF grant, i.e. 85% funded) The project started in August 2019 and will run for 4 years.
- **Climate Adaptation:** The Civil Contingencies Unit (CCU) is leading on a wide range of initiatives to tackle adaptation to climate change, one of which being the Community Safety Award. The CCU continues to engage uniformed youth organisations across the county to complete the award, to ensure young people are better prepared and have a greater knowledge of how they can help themselves and their communities during emergencies. The CCU is working closely with the Environment Agency to develop various community emergency plans which cover a variety of risks eg wildfires, flooding and heavy snow. Work is also continuing with primary schools on emergency preparedness. EA are continuing to undertake natural flood management in a variety of areas including upper Weardale and the de-culverting of the Cong Burn at Chester-le-Street is due to begin.
- **District heating:** It has been confirmed that a detailed business case will be developed to assess the viability of a City district heating scheme based on water source heating.
- **Minewater:** DCC are helping to enable a UK first minewater DH project at Seaham. Working with TOLENT and the Coal Authority, DCC are helping to progress the scheme which will utilise minewater from the already existing pumping station at Dawdon to heat housing in the new Seaham Garden Village development.
- The Council is continuing to develop relationships with key Stakeholders, including Northumbrian Water, Northern Powergrid and Northern Gas Networks and the NELEP.

Conclusion and Next Steps

- 37 Following the adoption of the 'Climate Emergency' motion by Full Council on the 20th February and subsequent consultation and agreed action plan, the new targets are

- 80% reduction in Council emissions by 2030
- Carbon Neutral by 2050 (70% reduction by 2030) for Countywide emissions

38 The team is working with Inspire and corporate comms to develop a new programme of awareness raising, which will aim to engage both staff and communities on the wider climate change agenda.

Background Papers

- Full Council 20 February 2019 Climate Change Emergency Declaration
- Full Council 17 July 2019 Climate Change Emergency Update Report Other useful documents
- County Durham Climate Change Strategy and Delivery Plan (2015-20)
- Durham County Council Carbon Management Plan (2015-20)
- Committee on Climate Change Net Zero: The UKs contribution to stopping global warming
- Durham County Council Strategic Cycling and Walking Delivery Plan 2019-2029

Contact:	Stephen McDonald	Tel: 03000 265537
	Rosalind Farrow	Tel: 03000 265546

Appendix 1: Implications

Legal Implications

Not applicable

Finance

The Carbon Reduction Programme has made significant financial savings for the authority Consultation

Consultation

The proposal is for a series of stakeholder engagement meetings and workshops on the plan to take place from autumn 2019

Equality and Diversity / Public Sector Equality Duty

A changing climate will impact on everyone, across the world, but research suggests that the poorest people are likely to suffer the worst impacts, so reducing carbon emissions now will contribute to future equality

Human Rights

Not applicable

Climate Change

The purpose of the Carbon Management Programme is to reduce our own contribution to the climate crisis. The main aim of the works described in this report is to mitigate climate change.

Crime and Disorder

Not applicable

Staffing

Within the remit of the Low Carbon Economy Team to develop

Accommodation

Not applicable

Risk

Durham County Council has declared a climate emergency and set targets against a backdrop of national and international protest and will mitigate any risk by undertaking detailed planning and consultation.

Procurement

Not applicable

Climate Emergency Response Plan Update

Stephen McDonald,
Principal Officer – Low Carbon Economy

Rosalind Farrow,
Carbon and Energy Analyst – Low Carbon Economy



Content

- Climate Emergency Response Plan
 - Consultation Outcome
- Council Actions (Carbon Management Plan)
 - Council Emissions Change
 - 2019 Progress
 - Looking Ahead
- Countywide Actions
 - Countywide Emissions
 - Renewable Energy Capacity
 - 2019 Progress
 - Looking Ahead

Consultation

- 6 week consultation – September 2019
- Public and staff online survey
 - Elected Member survey
 - Meetings and presentations
 - Tier 4 Managers
 - Area Action Partnership
 - Town and Parish Council's
 - Extinction Rebellion
 - Durham Road Block
- Young person's engagement
- Stakeholder engagement



Outcomes – Council Actions

- Staff Survey - 502 responses
- Important issue to staff
- What should the **Council** be doing? – **Top 3:**
 - Reduce the need for staff to travel
 - Maximise renewable energy generation
 - New buildings – very low or zero carbon
- Close 4th: Existing buildings – improve energy efficiency

Outcomes – Countywide Survey

Public survey - 523 responses

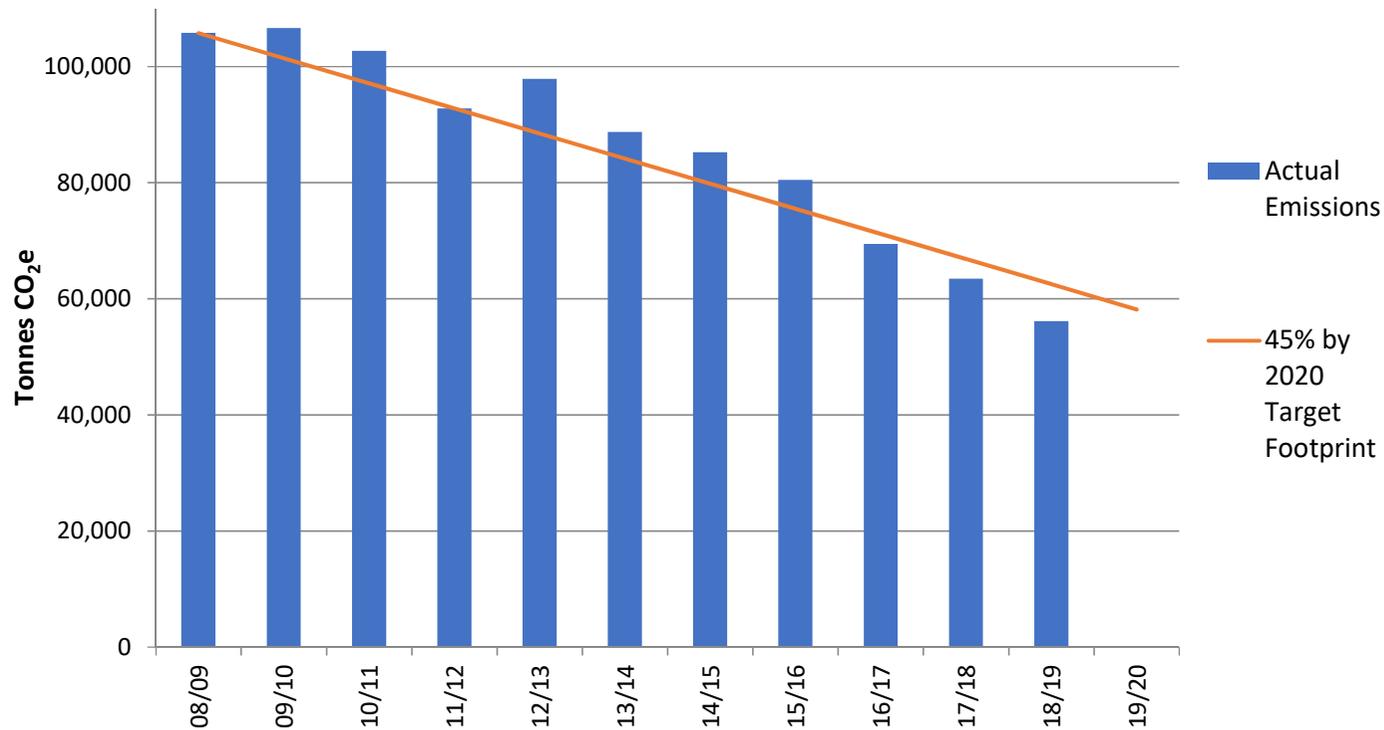
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Council Emission Targets

- CMP 2015-2020: target 45% from 2008/09
 - March 2019: 47% achieved
 - 2019-20: figures due in July 2020
- February 2019: Climate Emergency Target
 - 60% by 2030
- February 2020: New Target
 - **80% by 2030**

Carbon Management Plan 2018-19

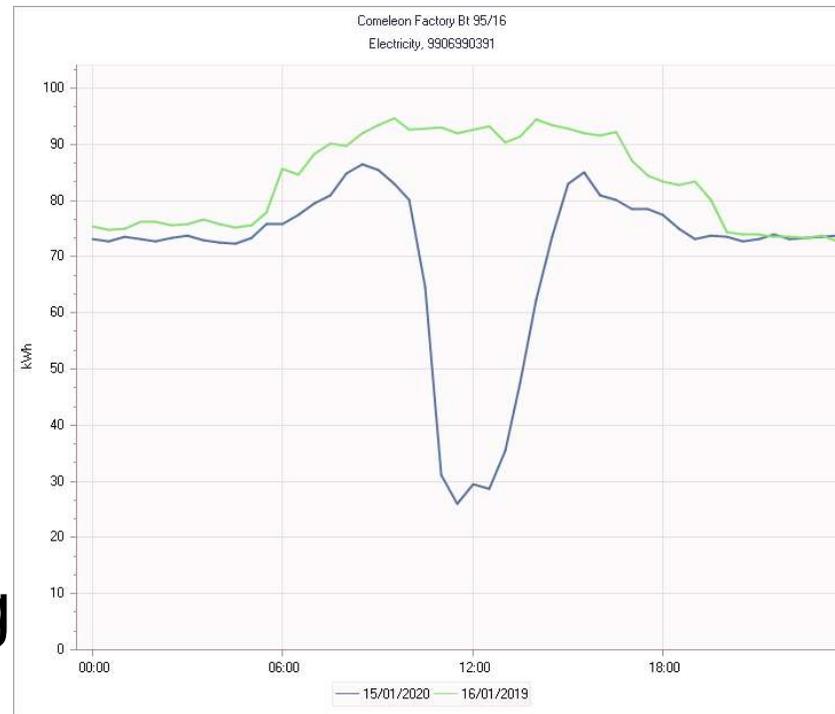
Annual CO₂e Emissions



Carbon Management Plan 2019-20

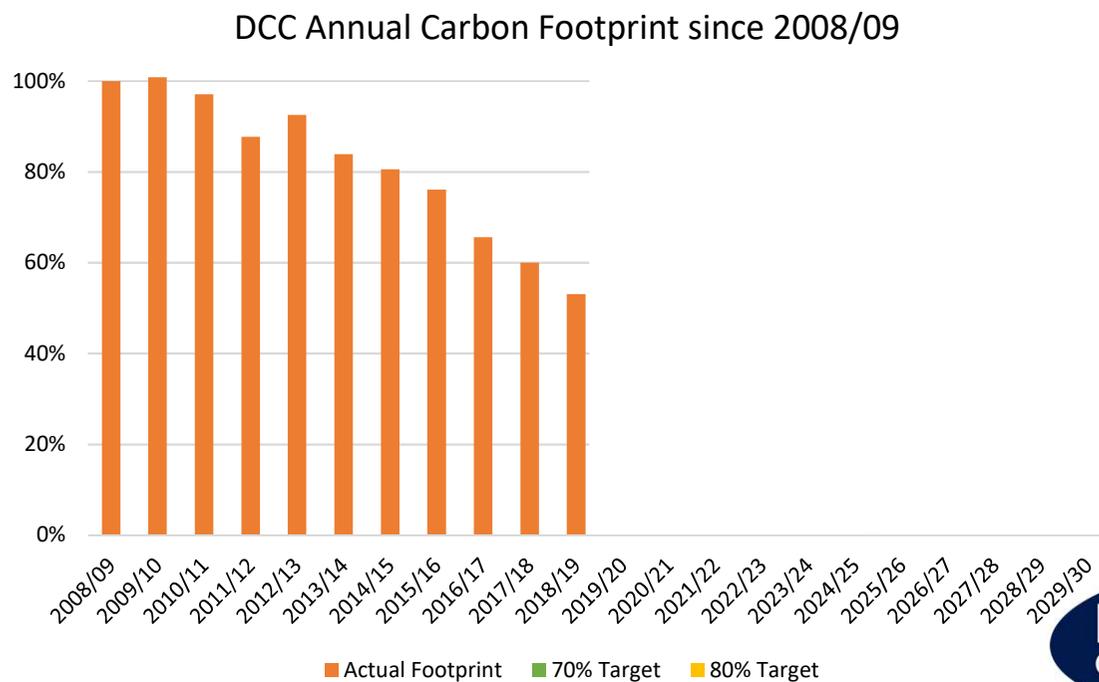
Successful work of the last year:

- Tanfield Solar Farm
 - Saves £25k
- LED lighting
 - Rolling out
- Louisa Centre Drilling
 - Design underway

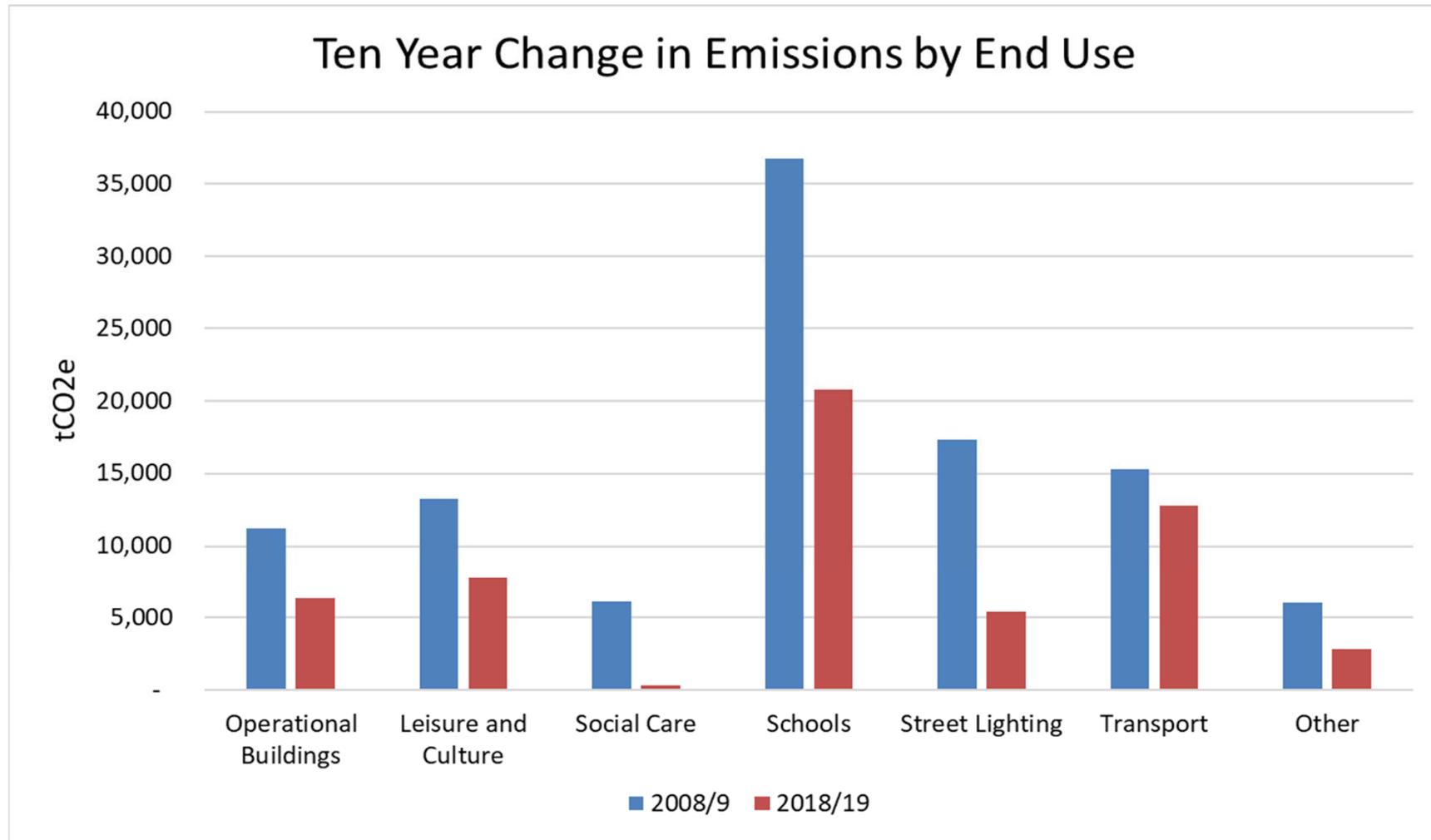


Carbon Management Plan 2020-25

- Climate Emergency Target: 80% by 2030
- Carbon Management Plan Target: 70% by 2025



Council Emission Reductions by Service Area



Carbon Management Plan 2020-25

From the Climate Emergency Response Plan

Areas of focus:

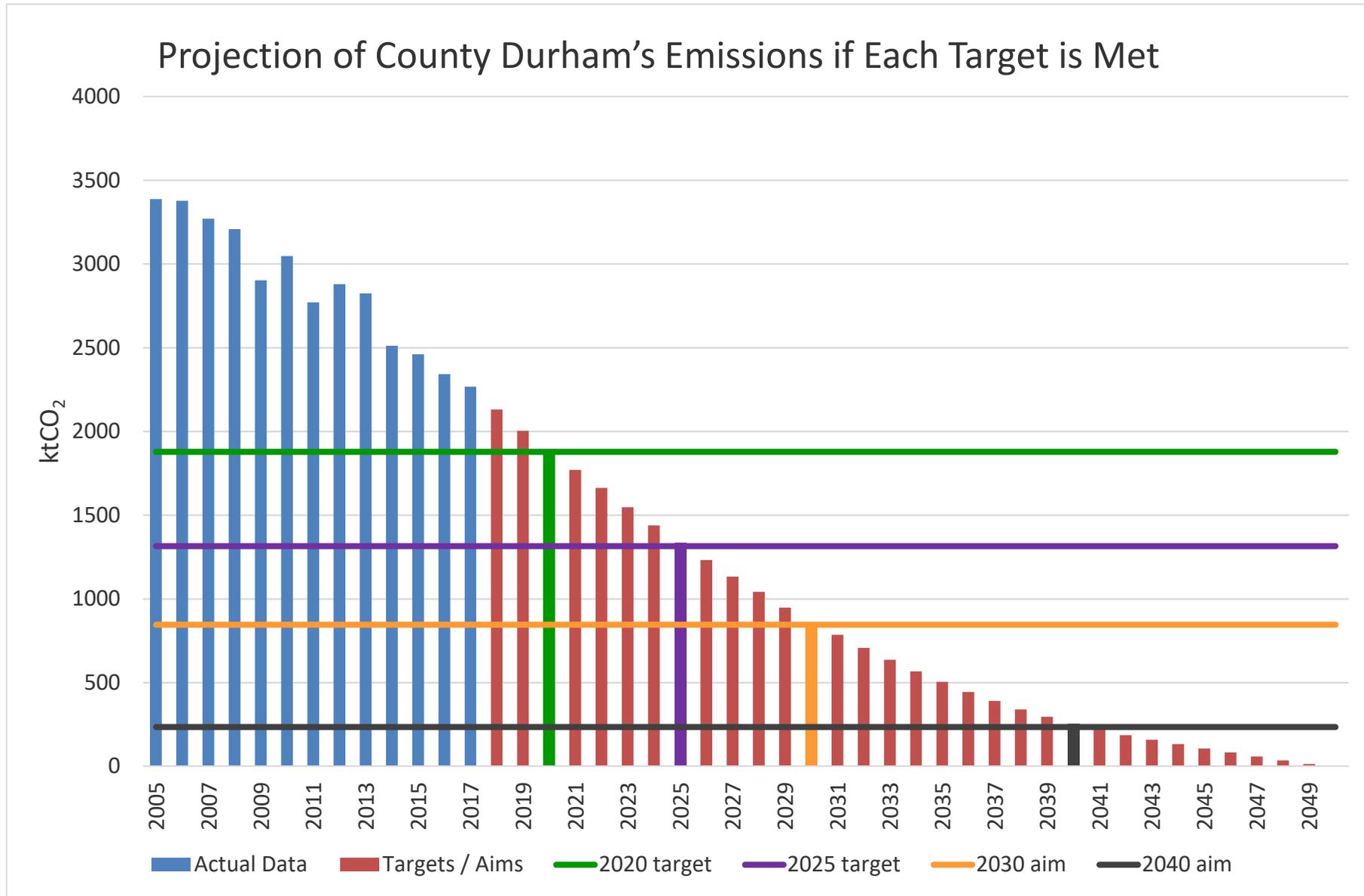
- Heat and insulation
- Transport
- Electrical generation
- Schools
- Monitoring and targeting



Countywide Emissions Targets

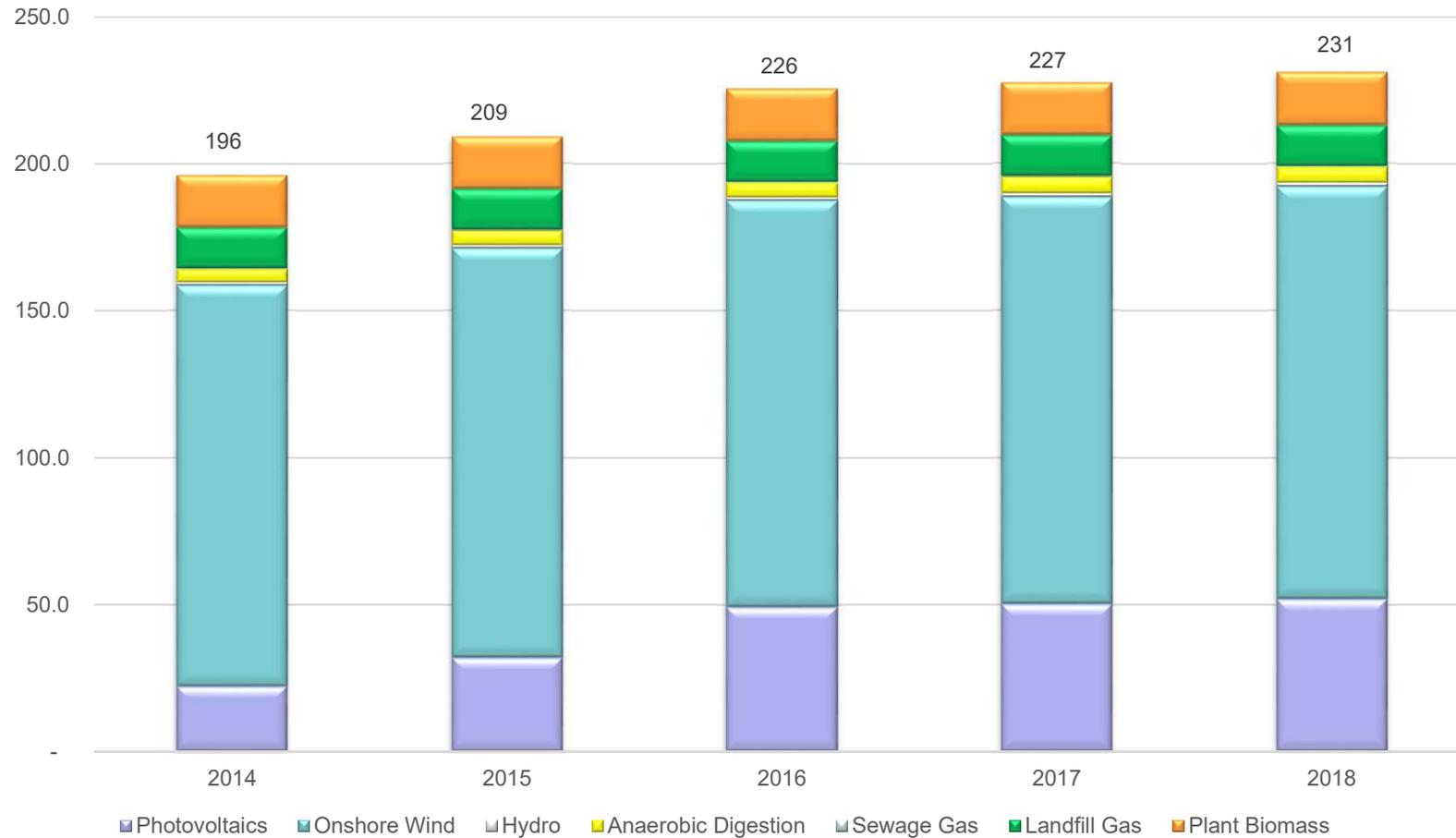
- Carbon Neutral 2050
- Milestones
 - 2020 – 60% reduction (data will be released in 2022)
 - 2025 – 72% reduction (data will be released in 2027)
- Currently 52% (2017)

Countywide Emissions Targets



Installed Renewable Energy Capacity

Total Renewable Energy Capacity in Co Durham



2019 Progress - Countywide

- Housing Regeneration
 - £2.5 million ERDF Solid Wall Insulation Innovation (SWii) project
 - £2 million WHF new off gas heating systems including 100 renewable systems
- Natural Environment
 - Woodland Revival Project (64ha of woodland planting)
 - Further peatland restoration through the AONB Partnership
- Transport
 - SOSCI – EV infrastructure project funded by Innovate UK rolling out charge points in rural areas
 - Cycling and Walking Delivery Plans

2019 Progress – Countywide

- Communities
 - Civil Contingency Unit support with Emergency Plans
- Business
 - 241 SME's supported through BEEP, saving 1500t CO₂
- Heat
 - Support of potentially the first UK minewater DH scheme in Seaham
 - Detailed Business Case Development of Durham City District Heating potential
- Waste
 - Currently 44% of County Durham's waste is reused, recycled and composted
 - Success of the Single Use Plastic pledge

Looking Ahead - 2020

- Community Tree Planting Programme
- [Community Investment Fund](#)
- Community EV Charging points
- Market Electric Points
- Minewater feasibility in Horden
- Further support for Peatland restoration
- [Blue Carbon – Oyster farm development](#)
- Carbon Offset fund
- Education and Awareness raising
- E-cargo bikes
- HEET Project (Energy Friends)
- Alternative fuel research with partners
- Electric Busses for the Park and Ride



Partnership Working

- North East LEP
- Durham University
- Durham Energy Institute Board
- Northern Gas Networks
- Northern Powergrid
- Northumbrian Water
- Coal Authority – Minewater Opportunities
- LA7 Officer Working Group