Translating national net zero policy into local implementation: A UK case study

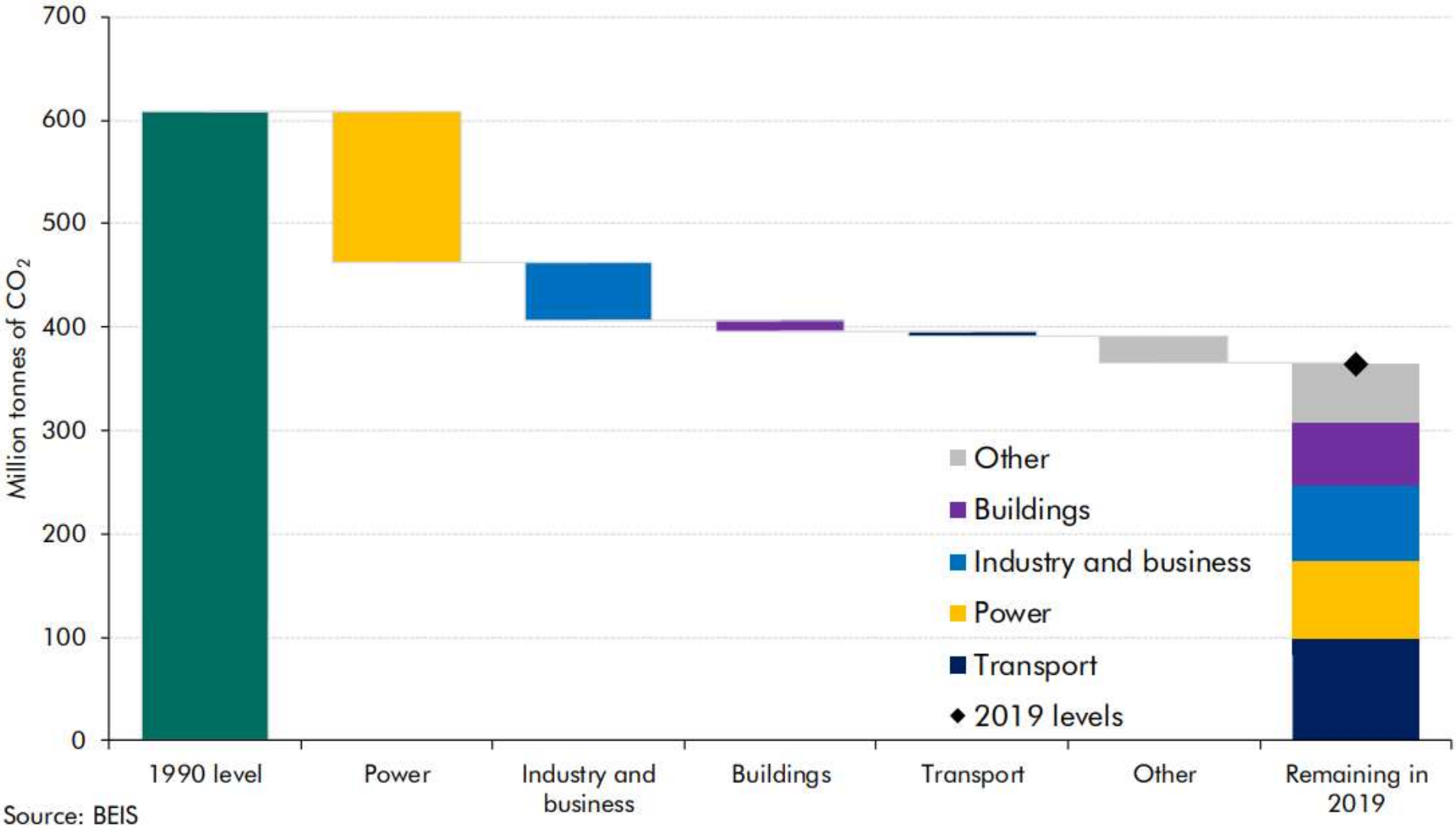
Implementing effective and just net zero policies (IMPERFECT) project

ECEEE Summer Study

13 June 2024

Colin Nolden, Jake Barnes, Esmé McMillan, Morag McDermont





Source: BEIS

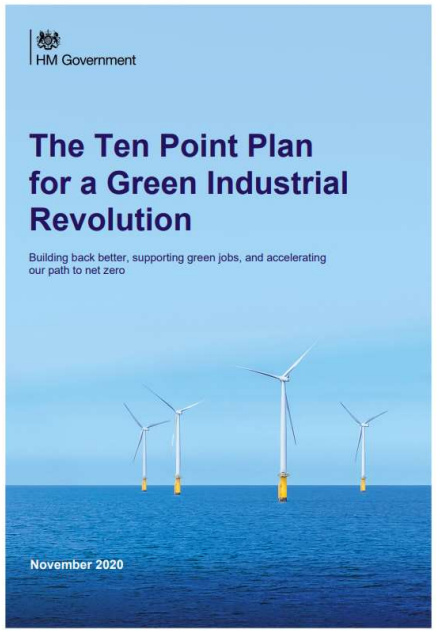
OBR 2021

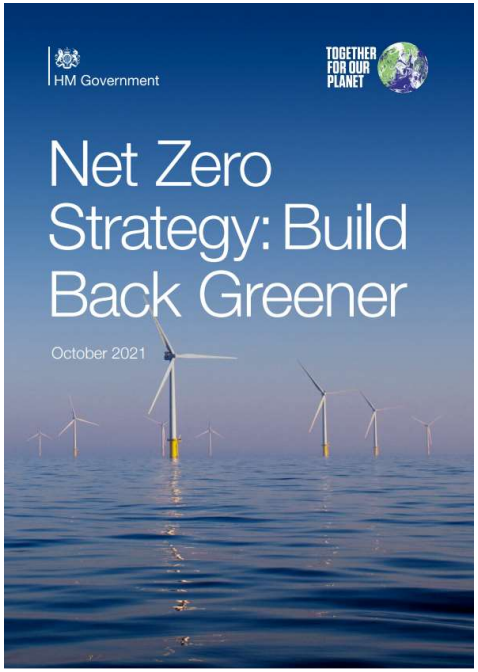
Summary of progress against key indicators

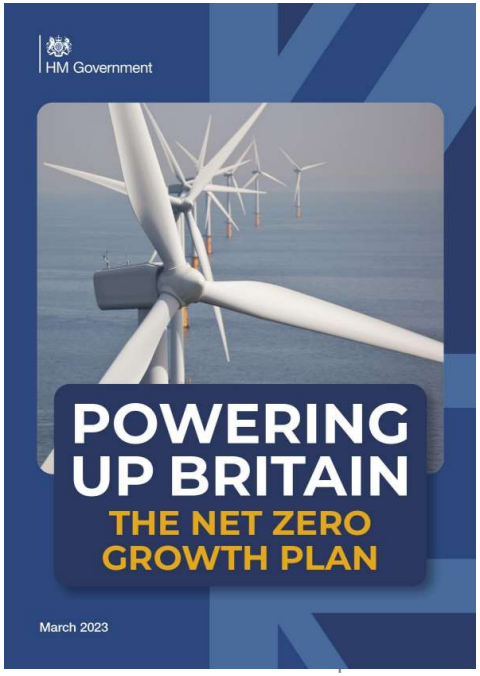
Surface transport	Energy supply	Buildings	Industry	Agriculture and land
Electric car sales (G)	Grid storage (G)	Electricity to gas price ration (G)	Bioenergy use in industry (G)	Livestock numbers (G)
Battery cell prices (O)	Dispatchable low-carbon capacity in development (G)	Greening Government commitments (G)	Electricity use in industry (O)	Livestock exports (G)
Petrol / diesel car intensity (O)	Offshore wind (O)	Low-carbon share of heat supply (O)	Energy consumption per unit of GVA (O)	Food waste (G)
Petrol/diesel van intensity (O)	Onshore wind (O)	Energy efficiency measures (R)	Private sector targets (R)	Woodland management (O)
Van km (O)	Unabated gas (O)	Heat pump installations (R)	Industrial process emissions (R)	Crop yields (O)
HGV km (O)	Refineries emissions (O)	Heat pump costs (R)	Hydrogen use in industry (W)	New woodland (R)
Electric van sales (R)	Solar PV (R)	Trained heat pump installers (R)	Pipeline of hydrogen projects (Gr)	Peatland restoration (R)
Car km (W)	Active demand response (W)	Residential energy demand (W)	Industrial energy efficiency (Gr)	Anaerobic digestion (R)
Public chargepoints (W)	Low-carbon hydrogen production (W)	Non-residential energy demand (W)	Pipeline of industrial CCS projects (Gr)	Energy crops (W)
Public transport demand (LGr)	Oil and gas production emissions (W)	Non-residential buildings energy intensity (W)	Industry consumption emissions (LGr)	Meat consumption (W)

Key:

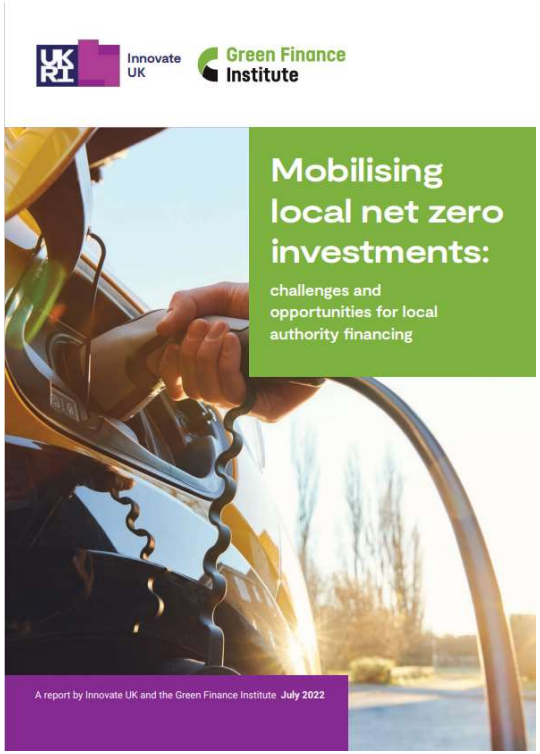
- On track (G)
- Slightly off track (O)
- Significantly off track (R)
- Too early to say (W)
- Data not reported (Gr)
- No benchmark or target (LGr)

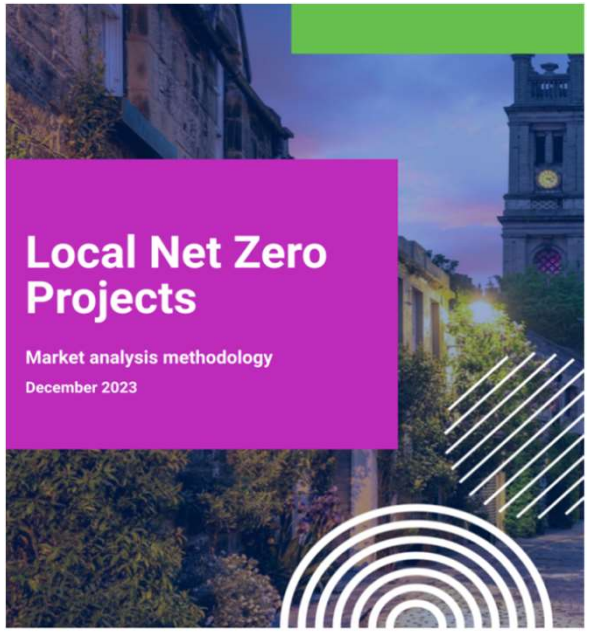

HM Government
The Ten Point Plan for a Green Industrial Revolution
Building back better, supporting green jobs, and accelerating our path to net zero
November 2020

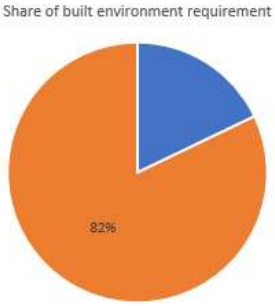

HM Government
TOGETHER FOR OUR PLANET
Net Zero Strategy: Build Back Greener
October 2021

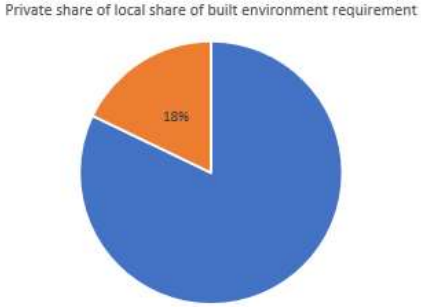

HM Government
POWERING UP BRITAIN
THE NET ZERO GROWTH PLAN
March 2023

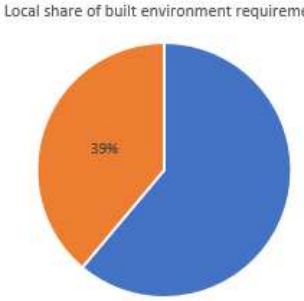

Innovate UK
In association with:
pwc
OTLEY ENERGY
UNIVERSITY OF LEEDS
Accelerating Net Zero Delivery
Unlocking the benefits of climate action in UK city-regions
March 2022


Innovate UK
Green Finance Institute
Mobilising local net zero investments:
challenges and opportunities for local authority financing
A report by Innovate UK and the Green Finance Institute July 2022

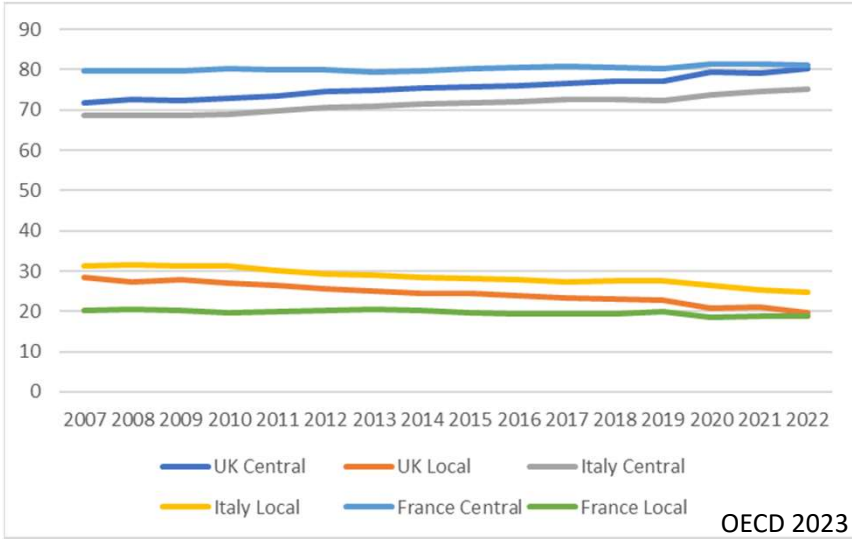

Local Net Zero Projects
Market analysis methodology
December 2023
Innovate UK
In association with:
pwc







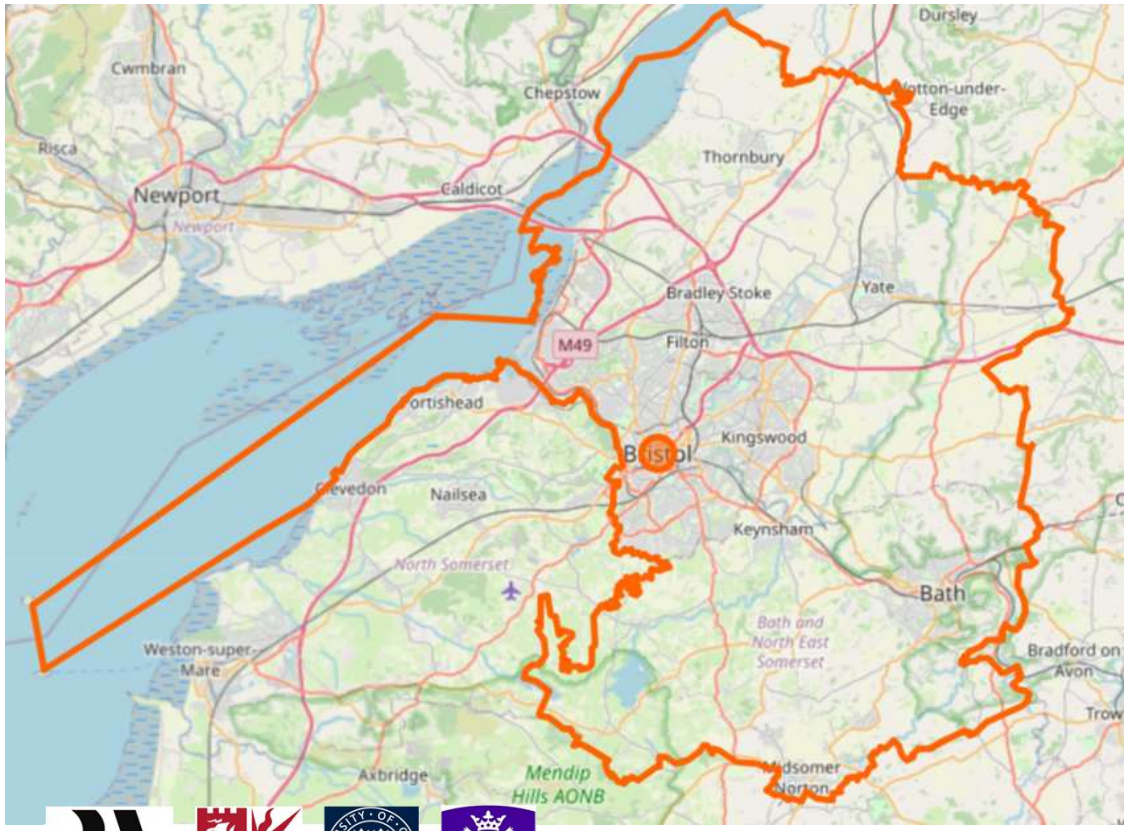
Country	Percentage of tax expenditure raised at sub-national level	Percentage expenditure at sub-national level
UK	4.84%	19.71%
Italy	10.93%	24.76%
France	14.24%	18.89%
Japan	22.57%	-
Germany	33.71%	39.65%
US	32.50%	40.64%
Canada	48.54%	66.58%

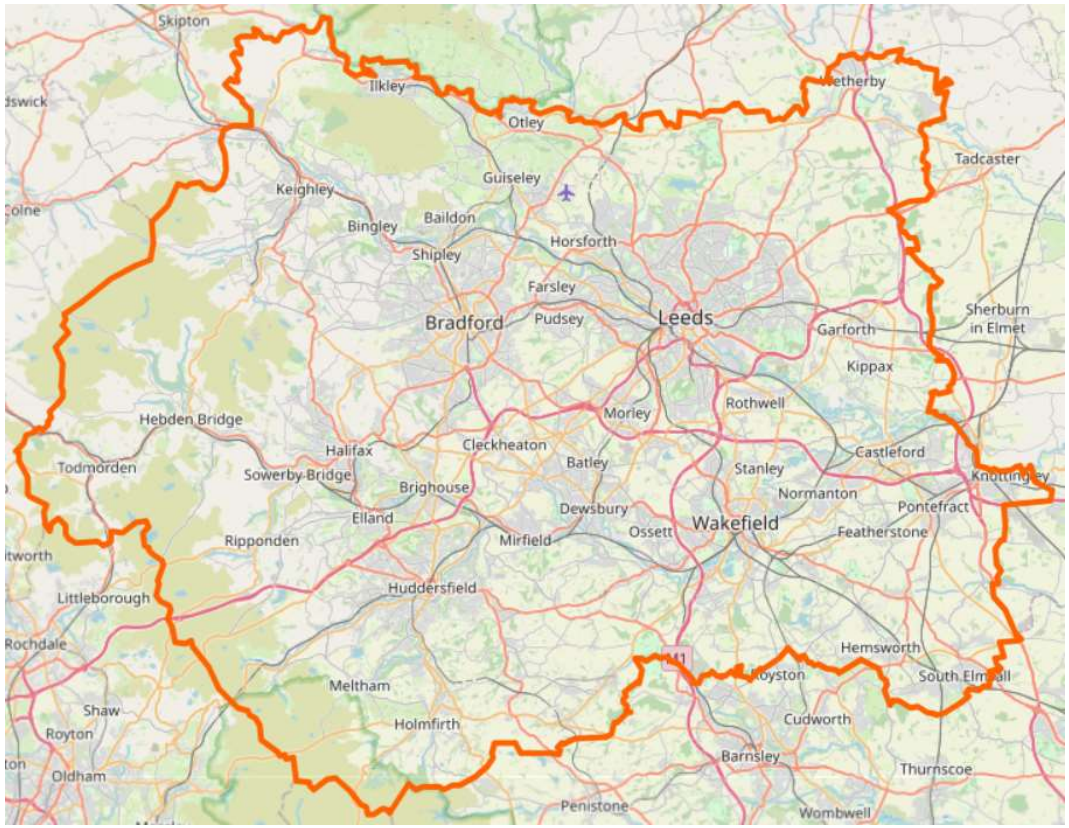


Innovate UK &PwC 2023

OECD 2023

How does national policy translate into local delivery?


Dursley
Cwmbran
Chepstow
Wotton-under-Edge
Risca
Thornbury
Newport
Caldicot
Bradley Stoke
Yate
M49
Filton
Kingswood
Bristol
Nailsea
Clevedon
Keynsham
North Somerset
Bath
Bath and North East Somerset
Weston-super-Mare
Bradford on Avon
Axbridge
Mendip Hills AONB
Midsomer Norton


Skipton
Ilkley
Otley
Wetherby
Tadcaster
Guiseley
Keighley
Baildon
Bingley
Shipley
Horsforth
Farsley
Bradford
Pudsey
Leeds
Garforth
Sherburn in Elmet
Kippax
Rothwell
Morley
Hebden Bridge
Halifax
Cleckheaton
Batley
Castleford
Todmorden
Sowerby Bridge
Brighouse
Stanley
Normanton
Pontefract
Elland
Dewsbury
Ossett
Wakefield
Featherstone
Ripponden
Mirfield
Huddersfield
Littleborough
Rochdale
Hemsworth
Meltham
Royston
South Elmsall
Shaw
Holmfirth
Cudworth
Royton
Barnsley
Oldham
Thurnscoe
Penistone
Wombwell





Action Plan 2023 - 24

This document is an overview of priority actions which the Council is taking to tackle the climate emergency.

The table that follows contains key actions categorised by strategic priority, noting progress and next steps. It is organised by the three priority areas for action:

1. **Decarbonising Buildings – making energy efficiency improvement** of the majority of existing buildings (domestic and non-domestic) and zero-carbon new builds
2. **Decarbonising Transport**: a major shift to mass transport, walking and cycling to reduce transport emissions
3. A rapid and large-scale increase in **Local Renewable Energy Generation**
4. **Net Zero Council – the Council's own operations and where it has influence**

The final section lists the Council's strategies and policies that are supporting delivery of the strategic priorities.

This document is updated annually.

Each action tile includes a progress bar number:

1 = Action/strategy still in formation
2 = Action/strategy in place, but with no current outputs
3 = Action/strategy well underway with current outputs
4 = Action/strategy mature, with plans for redevelopment or additions
5 = Bespoke action/strategy now complete and considered finished

Appendix 3

Climate and Nature Emergency Action Plan – Year 4 (2023/24)

This action plan sets out work which is being funded through the Climate and Nature Emergency budget for Year 4; work for which external funding is being sought and work which has been identified as a priority to deliver the 'Plan to 2030' recommendations to scale up and expand work in response to the Climate and Nature Emergency. It is not a comprehensive list of all the work being done across the council in response to the Climate and Nature Emergency.

This action plan sets out a portfolio of projects that needs to be matched against the available budget. Where the budget does not cover all projects, the intention is for them to be developed to a stage where they are 'shovel ready' pending funding opportunities.

- Projects in the white boxes are new projects
- Projects in the blue boxes are the year 4 phase of a project started in the year 3 action plan

The plan is set out under the following themes for ease of reference - cross cutting, buildings and built environment, transport (infrastructure and highways), green infrastructure and nature recovery, renewables, resources, waste, adaptation, and resilience. It is important to highlight that many projects are applicable across several themes reflecting the integrated approach and work of Climate and Nature Emergency Action - this is indicated in the 'purpose' column in the action plan table.

Project stages defined:

- Prepare – Project planning, this can include data gathering, research and consultation, business case development,
- Develop – Project development, this includes putting in place processes and systems, setting up governance structures, securing resources
- Implement – Project delivery, outputs produced, putting in place measures or carrying out actions that deliver the aims

Plan to 2030 – Area wide recommendations to deliver carbon neutrality

- Maximise support for domestic retrofit (most likely largest remaining contributor to area emissions).
- Plug gaps in action on decarbonising heat.
- Maximise business engagement in carbon emissions reduction.
- Maximise advice and support for active travel, support EV charging infrastructure roll-out.
- Work with WECA (plus the national and local highways authorities) to consider adaptation in transport planning.
- Maximise growth of renewable energy across the area.



West Yorkshire Combined Authority

Tracy Brabin Mayor of West Yorkshire

West Yorkshire Climate and Environment Plan

2021 – 2024





Appendix A

City of Bradford Metropolitan District Council

City of Bradford MDC

SUSTAINABLE DEVELOPMENT ACTION PLAN

2020-2021

Kirklees Council

Kirklees Climate Change Action Plan



Achieving Inclusion

Kirklees Council

Leeds City Council

Report author: Polly Cook
Tel: 0113 37 85845

Report of Director of Resources and Housing
Report to Executive Board
Date: 10th February 2021
Subject: Annual Report on the Climate Emergency

Are specific electoral wards affected? If yes, name(s) of ward(s):	☐ Yes ☒ No
Has consultation been carried out?	☐ Yes ☒ No
Are there implications for equality and diversity and cohesion and integration?	☐ Yes ☒ No
Will the decision be open for call-in?	☒ Yes ☐ No
Does the report contain confidential or exempt information? If relevant, access to information procedure rule number: Appendix number:	☐ Yes ☒ No

Summary

1. Main issues

- 2021 is a key year in the fight against the climate emergency.
- The pandemic has had complex effects on emissions but with an estimated overall reduction of 13% from 2019 to 2020. It has significantly reduced emissions from the private car as traffic levels across the city drop by up to 40%. The impact of the covid-19 pandemic has also reduced the use of public transport and we have seen greater prioritisation of walking and cycling. Schemes such as the district heating and transport schemes have been able to progress more quickly due to the reduced traffic levels but others have been slowed down due to the impact on staffing level and/or the ability to complete works within private residences.
- As we start to emerge from the pandemic, we must focus on consolidating the trends that have supported this rapid reduction in emissions such as increased home working and buying more locally, and we must look to rebuild the economy with a focus on long term sustainability.
- At a council level, the pandemic has had a number of impacts that will support our ambition to reduce our emissions by 50% by 2025:
  - grey fleet mileage has been reduced by 46%, with some services adopting new ways of working on a permanent basis;
  - it has accelerated our estate rationalisation programme due to the high level of people that are working from home;

Annex Bii Climate Change Action Plan

ANNEX DRAFT CLIMATE CHANGE ACTION PLAN

Introduction

The York Climate Change Strategy: A City Fit for the Future sets out City of York Council's commitment to tackling climate change and the ambition for York to be a net zero and climate resilient city by 2030.

This Action Plan has been produced by City of York Council in consultation with city partners to support delivery of our ambition. It contains an indicative list of 160 potential actions covering the eight priority themes and 31 strategic objectives identified in the Climate Change Strategy. The actions identified are based on the previous work done by Leeds University (Net Zero Roadmap for York), pathway modelling by Anthesis, best practice guidance from the Local Government Association, recommended actions for Local Authorities by Friends of the Earth, stakeholder workshops and officer engagement. The Action Plan provides high level estimates covering carbon impacts, cost implications, timescales, co-benefits, constraints, level of council influence and current stage of implementation.

We are already delivering against these actions. 58 are in progress – these are tracked as part of the Climate Action Update[1]

Further work will be required to provide a comprehensive and quantified implementation roadmap that considers all of the actions and levers required to achieve net zero. This work will be undertaken as the plan is put in place.

The Action Plan is a live document, to be reviewed annually. It will change over time in response to the reporting and feedback mechanisms that track progress against our ambition.

The Action Plan is itself part of the governance arrangements to track action, monitor progress, report annually and assign responsibility.

Impact

A high-level estimate of the potential impact from each action is provided. Further analysis will quantify the carbon reduction contribution; however, for simplicity and speed of action this is presented in terms of low, medium & high.

Low

Medium

High

DRAFT

1 https://modgov.york.gov.uk/documents/s158863/Annex%20A_City%20of%20York%20Council_Climate%20Change%20Action%20Update.pdf

Code	Code descriptions
Adaptation	Actions referring to climate change adaptation and resilience
Buildings	Everything related to buildings
Business	Actions involving commercial establishments
Electricity networks and supply	Action relating to grid upgrades and renewable energy supply
Estates and public services	Actions relating to council own buildings, housing and land, and provision of services such as social care
Heat	All actions associated with heating
Nature	All action related to natural environment, especially in the context of biodiversity net-gain
Skills	Actions that seek to improve green skills in the local workforce
Transport	All forms of mobility
Waste and circular economy	Actions related to recycling and resources as well as infrastructures of support
Communication	Both one- and two-way, e.g. campaigns and roundtables
Data	Actions related to collecting and managing evidence
Planning	All actions related to formal land use planning as well as energy planning
Procurement	How councils commission services

Code	Code descriptions
Economic disincentive	Instruments that discourage use, e.g. taxation
Economic incentive (subsidy)	Economic instruments that encourage use, e.g. subsides
Economic incentive (Grants and funds)	Economic instrument that incentives action through provision of discrete funds
Funding scientific research	Supporting Research and Development of low carbon solutions
Organisational change	Government supported consolidation/rebranding/expansion of remit of existing organisations or the founding of new ones
Planning	Refers to permitted planning policies
Public expenditure	Allocated expenditure rather than specific Grants and funds
Public procurement	National Procurement Policy Statements
Regulations, legislation and standards	Rules that enforce particular behaviours
Regulated funding	Mandatory action based on regulated income e.g. Energy Company Obligation
Strategy	Refers to government aims which are not enshrined in Regulations, legislation and standards
Voluntary regulations	Agreements between government and others to achieve certain standards

Priority Areas	Median WECA %	Median WYCA %	Median urban %	Median rural %	Median CA %	MedianLA %	Average
1 : Adaptation	4.3%	5.0%	3.21%	4.33%	1.27%	1.90%	3.34%
2 : Buildings	14.3%	11.2%	15.26%	12.50%	11.46%	15.17%	13.32%
3 : Business	6.0%	4.5%	4.82%	3.85%	10.83%	3.79%	5.64%
4 : Communication	9.0%	11.7%	11.65%	10.58%	2.55%	12.32%	9.64%
5 : Data	5.5%	3.3%	4.82%	3.85%	3.82%	3.79%	4.18%
6 : Planning	5.0%	3.2%	2.41%	4.33%	3.82%	3.32%	3.67%
7 : Procurement and pensions	2.8%	3.3%	2.81%	3.37%	4.46%	3.32%	3.33%
8 : Electricity networks and supply	9.5%	4.3%	6.02%	6.73%	8.28%	6.64%	6.91%
9 : Estate and public services	14.0%	14.1%	16.06%	15.38%	2.55%	17.54%	13.28%
10 : Heat	3.0%	3.0%	8.84%	0.96%	1.91%	1.90%	3.27%
11 : Nature	5.0%	10.8%	2.01%	12.50%	15.92%	8.53%	9.14%
12 : Skills	3.0%	3.2%	3.61%	3.37%	6.37%	3.79%	3.88%
13 : Transport	15.5%	15.9%	16.47%	13.46%	24.84%	15.17%	16.89%
14 : Waste and circular economy	3.0%	6.4%	2.01%	4.81%	1.91%	2.84%	3.50%

National Policy	Average WECA %	Average WYCA %	Average urban %	Average rural %	Average CA %	Average LA %	
1 : Economic disincentive (taxation)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2 : Economic incentive (subsidy)	3.39%	4.05%	2.50%	4.17%	3.45%	3.76%	3.55%
4 : Economic incentive (grants and funds)	47.46%	37.84%	57.50%	38.54%	44.83%	42.11%	44.71%
3 : Funding scientific research	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5 : Legal penalties	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6 : Organisational change	0.00%	5.41%	2.50%	3.13%	3.45%	3.01%	2.91%
7 : Planning	3.39%	8.11%	2.50%	7.29%	3.45%	6.02%	5.13%
8 : Public education and advertising	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9 : Public Expenditure	3.39%	5.41%	5.00%	3.13%	10.34%	4.51%	5.30%
10 : Public procurement	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11 : Regualtions, legislation and standards	27.12%	31.08%	15.00%	34.38%	24.14%	29.32%	26.84%
12 : Regulated funding	3.39%	0.00%	2.50%	1.04%	3.45%	1.50%	1.98%
13 : Strategy	11.86%	8.11%	12.50%	8.33%	6.90%	9.77%	9.58%
14 : Voluntary regulations	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Conclusions

- Local authorities' ability to use their capital funds and control over assets allows them to target certain areas (**buildings** and **heat**)
- Combined authorities' lack of such control and statutory duty limits their activity to regional priorities (**transport** and **business/industry**)
- Net zero is translated from national to local mainly through **grants and funds** and **regulations, legislation and standards**
- Finance at local level is competitively awarded and insufficient
- Closer alignment between authority tiers is necessary to deliver a just transition to net zero – for example through statutory duties
- Funding allocation rather than competitions to ensure that it follows need rather than resourcing
- Need for policy evaluations beyond cost-benefit analysis to take into account social outcomes and legitimacy

Thanks for your attention!

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