

SLOUGH BOROUGH COUNCIL

Climate Change Strategy and Action Plan

December 2021



www.slough.gov.uk
Slough
Borough Council



01 CONTEXT

CONTEXT

SLOUGH'S COMMITMENT

Slough Borough Council, have committed to becoming a carbon neutral district by 2040, with a stretch target of 2030:

On 23 July 2019, Slough Borough Council's declared a motion on Climate Change. The motion stated:

This Council notes the UK Government and Local Government Association's declaration of a national 'climate emergency', recognises that there is a growing urgency for national and international action to combat climate change, and commits to developing a Climate Change Strategy and Action Plan that will address the causes and consequences of climate change in Slough by tackling 5 key objectives:

1. Reducing emissions from our estate and operations
2. Reducing energy consumption and emissions by promoting energy efficiency measures, sustainable construction, renewable energy sources, and behaviour change
3. Reducing emissions from transport by promoting sustainable transport, reducing car travel and traffic congestion, and encouraging behaviour change
4. Reducing consumption of resources, increasing recycling and reducing waste
5. Supporting council services, residents and businesses to adapt to the impacts of climate change.

CONTEXT

WORK TO DATE

To date, Slough Borough Council have developed several responses to the motion on climate change:

- Carbon Management Plan 2020-2030
- Climate Change Strategy Vision
- Slough 2040 Vision



02

RESEARCH APPROACH

WHAT IS SCATTER?

- S** Setting
- C** City
- A** Area
- T** Targets and
- T** Trajectories for
- E** Emissions
- R** Reduction

SCATTER is an greenhouse gas emissions tool for local authorities

SCATTER

About Inventory Pathways My Account Sign Out FAQ

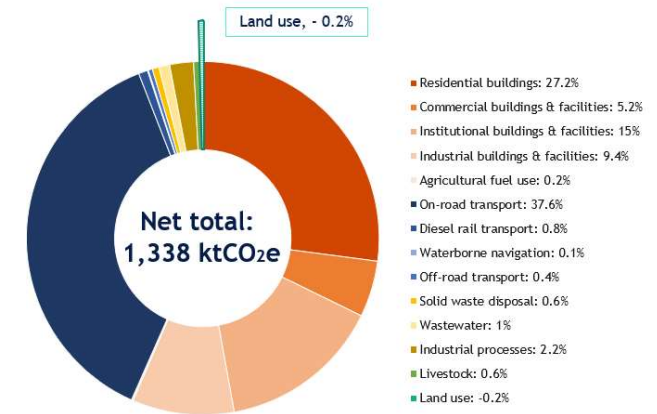
What is SCATTER?

SCATTER is a local authority focussed emissions tool, built to help create low-carbon local authorities. SCATTER provides local authorities and city regions with the opportunity to standardise their greenhouse gas reporting and align to international frameworks, including the setting of targets in line with the Paris Climate Agreement. Its use is free of charge to all local authorities in the UK.

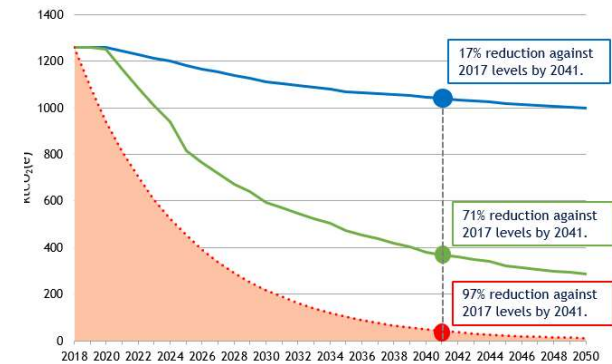
Please listen to the podcast below for an introduction to the tool, including its aims and key benefits.

0:00 / 9:28

EMISSIONS INVENTORY



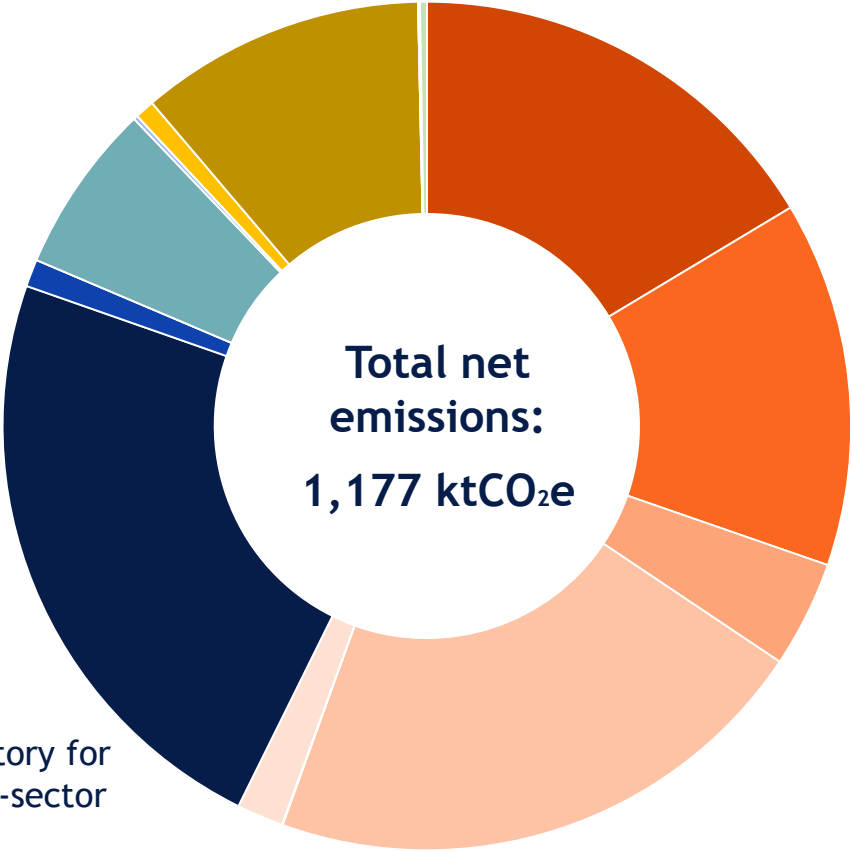
PATHWAYS



03

FOOTPRINT & PATHWAYS

SLOUGH'S EMISSIONS PROFILE



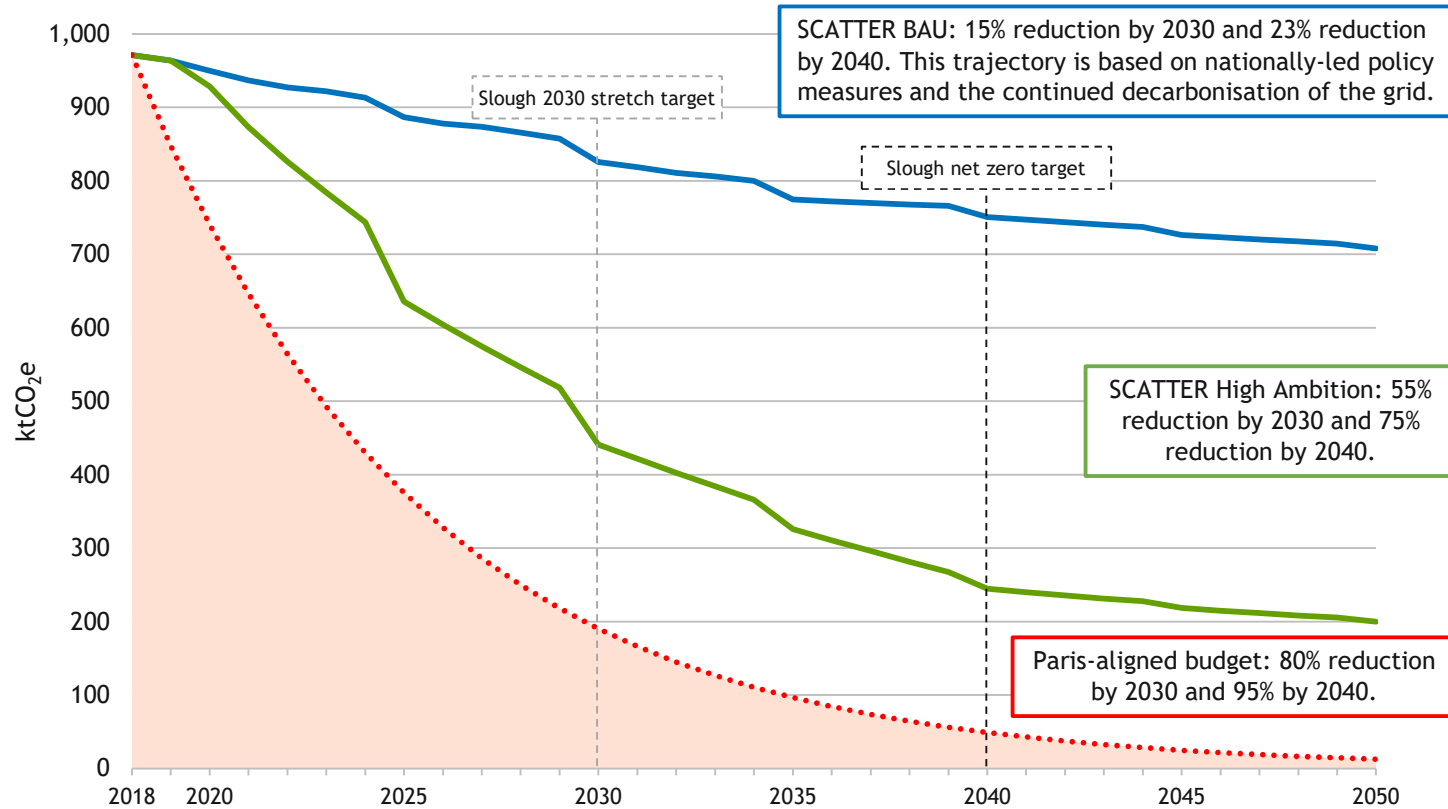
- Residential buildings: 16.5%
- Commercial buildings & facilities: 14%
- Institutional buildings & facilities: 4.1%
- Industrial buildings & facilities: 21.3%
- Fugitive emissions: 1.8%
- On-road transport: 23.2%
- Diesel rail transport: 1%
- Aviation: 6.5%
- Off-road transport: 0.1%
- Wastewater: 0.7%
- Industrial process: 10.9%
- Livestock: 0.1%
- Land use: -0.2%

SCATTER 2018 inventory for Slough shown by sub-sector

SLOUGH'S EMISSIONS PROFILE 2030 OR 2040?

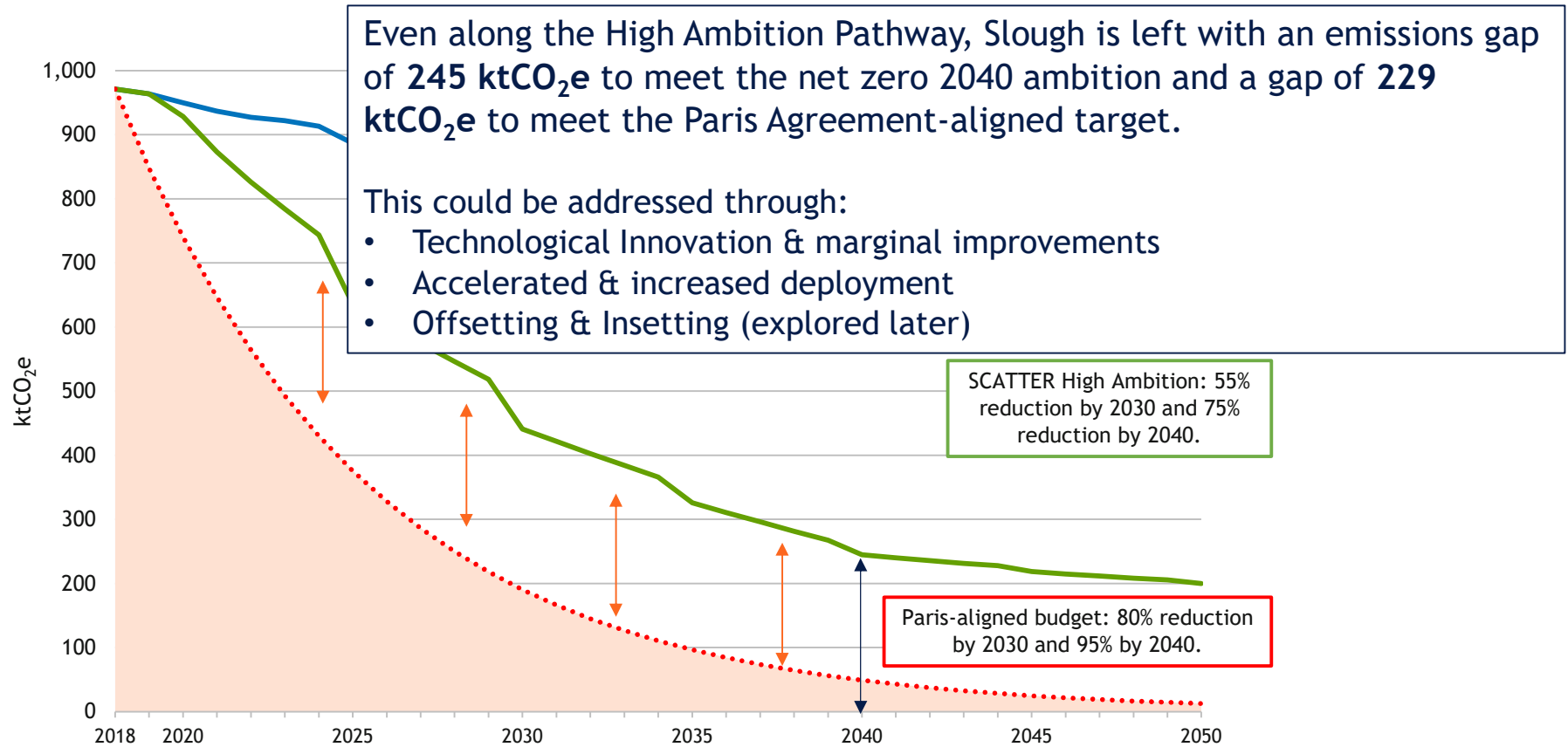
**Gross total:
0 ktCO₂e**

SLOUGH'S SCATTER PATHWAYS AND CARBON BUDGET



Future emissions pathway for Slough (2018 - 2050), with Slough's 2030 stretch target and 2040 target highlighted.

ADDRESSING THE GAP TO TARGET



Future emissions pathway for Slough (2018 - 2050), with Slough's 2030 stretch target and 2040 target highlighted.

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INTRODUCTION TO SLOUGH'S ACTION PLAN

ACTION PLAN

OVERVIEW

Actions are aligned with SCATTER's recommendations.

For each action, we provide:

- Overarching goal
- The council's role
- Key stakeholders
- Timescale
- Complexity

Potential carbon savings, Key policies, Case Studies, Costs, Co-benefits and Key Stakeholder Views are also given throughout



Buildings



Industry



Transport



Natural Environments



Waste



Energy Supply



*Council's
Wider
Influence



*Adaptation

ACTION PLAN

OVERVIEW

Sector	Description & Hierarchy				Stakeholders & Action Type				Practical details			
	Carbon Reduction Intervention	Goal	SBC's Influence	Action	What is the Council's role?	Lead Stakeholder	Other key stakeholders	Action Impact	Timescale	Level of complexity	Council resource	Total FTE
Overall emissions sector, aligning with SCATTER inventory sectors	Corresponds to SCATTER interventions.	Group by type / overall goal.	Slough Borough Council Action or Borough-wide Influence Actions	What specific actions will deliver the goal described. Numerous actions may sit against one goal.	Research & Design, Implementation, Communication & Engagement, Policy & Strategy	What group or people need to be involved in this? e.g. stakeholder groups, or specific individuals	What group or people need to be involved in this? e.g. stakeholder groups, or specific individuals	Distinguish between strategic, indirect or direct actions	Immediate, short (<2 years), medium (3-6 years), long (7+ years)	High, medium or low (level of investment, engagement, complexity of action)	Council employees or within existing council resource	Total FTE at SCATTER intervention level
1) Improved energy efficiency in buildings	Corresponds to SCATTER interventions.	Opportunities to improve energy efficiency across all private sector buildings maximised	Slough Borough Council Action	Investigate using Section 106 developer contributions to deliver net zero infrastructure or affordable housing projects.	Implementation	Council's Planning Policy Team	Developers	Direct	Long	High	0.25 FTE	Existing staff time & resource
				Develop a Sustainable Design and Construction Supplementary Planning Document to dispel cost misconceptions, promote whole life cost models and support higher development standards.	Policy & Strategy	Council's Planning Policy Team	Council's Housing Regulation Team	Strategic	Medium	Medium		
			Borough-wide Influence Action	Ensure the operational carbon of new developments is accurately reported following building completion	Communication & Engagement	Council's Building Control and Planning Team	Property Owners and Developers	Indirect	Medium	High	0.1 FTE	
				Encourage the use of recycled materials in new developments as a means of reducing the embodied carbon of new-build (scope 3 action). Record this through a Building Life Cycle Assessment or Carbon Statement.	Communication & Engagement	Council's Building Control and Planning Team	Developers	Direct	Medium	High	0.1 FTE	
				Signpost and promote retrofit opportunities and funding, initially targeting business sectors or domestic housing areas with the most need	Communication & Engagement	Council's Environment Management Team and Council's Communications Team	Slough Business Community Partnership and Property Owners	Indirect	Short	Low	0.25 FTE	
				Implement standardised performance measurement and reporting requirements for all existing and new commercial developments aligning with the Local Plan	Implementation	Council's Building Control and Planning Team	Commercial Property Owners and Developers	Strategic	Long	High	0.1 FTE	
		Improve energy efficiency in private sector non-domestic buildings	Slough Borough Council Action	Investigate integrating additional energy efficiency reporting during ISO50001 and ESOS certification requirements	Research & Design	Council's Building Control Team	Council's Business Support Team and SEGRO	Indirect	Medium	High	Existing staff time & resource	
				Encourage annual energy reporting requirements across the borough's non-domestic buildings	Communication & Engagement	Council's Environment Management Team	Property Owners and Developers	Indirect	Medium	High	0.1 FTE	
			Borough-wide Influence Action	Set up a mechanism through which business stakeholders can achieve sustained collaboration and showcase leading examples of decarbonisation	Communication & Engagement	Council's Business Support Team	Slough Business Community Partnership	Indirect	Short	Medium	0.25 FTE	
				Support businesses in accessing green finance by providing staff resources for guidance and advice via business networks	Communication & Engagement	Council's Business Support and Strategic Finance Team	Slough Business Community Partnership	Indirect	Short	Low	0.25 FTE	
				Investigate how the Council might implement strict energy efficiency standards (e.g. BREEAM outstanding) for new data centre sites built in the borough	Implementation	Council's Building Control and Planning Team	Data Centres	Direct	Medium	High	Existing staff time & resource	
				Encourage all new dwellings to seek a 30% energy reduction beyond Part L of the 2013 Building Regulations	Communication & Engagement	Council's Planning Policy Team	Developers and Property Owners	Strategic	Long	High	Existing staff time & resource	
		Improve energy efficiency in privately owned and rented properties	Slough Borough Council Action	Consider green accreditation schemes for private landlords including access to finance, suppliers, installers and discounted EPC surveys as an incentive to the private rental sector to improve energy efficiency	Communication & Engagement	Council's Housing Regulation Team	Landlords	Strategic	Long	High	0.25 FTE	
				Raise the minimum energy efficiency standards (MEES) from the current D up to a C for private rented properties and improve its enforcement to capture non-compliance, providing support to tenants and landlords where needed	Implementation	Council's Housing Regulation Team	Landlords	Strategic	Long	High	0.1 FTE	
				Utilise household fuel poverty data to identify 'hotspots' of low energy efficiency properties and target engagement and financing opportunities to these households.	Research & Design	Council's Housing Regulation Team	Registered Social Landlords	Indirect	Medium	Medium	Existing staff time & resource	
				Ensure new houses built through Slough's House Building Programme incorporate an uplift in energy efficiency standards in alignment with progression towards the Future Homes Standard	Implementation	Council's Housing Regulation Team	House Building Programme	Direct	Long	High	0.25 FTE	
			Borough-wide Influence Action	Set up a mechanism for residents to collaborate and showcase leading examples of decarbonisation e.g. Bristol Green Doors Open Home Events	Implementation	Council's Housing Regulation Team and Council's Environmental	Residents	Indirect	Long	Medium	0.1 FTE	
				Publicise opportunities associated with improving energy efficiency standards and provide communications to owner-occupied homes	Communication & Engagement	Council's Housing Regulation Team and Council's Environmental	Council's Comms Team, Residents	Indirect	Short	Low	Existing staff time & resource	
Set up a system where tenants could anonymously report landlords who do not meet MEES or EPC standards	Implementation			Council's Housing Regulation Team	Residents	Indirect	Medium	High	0.1 FTE			

ACTION PLAN

DEFINING RESPONSIBILITY

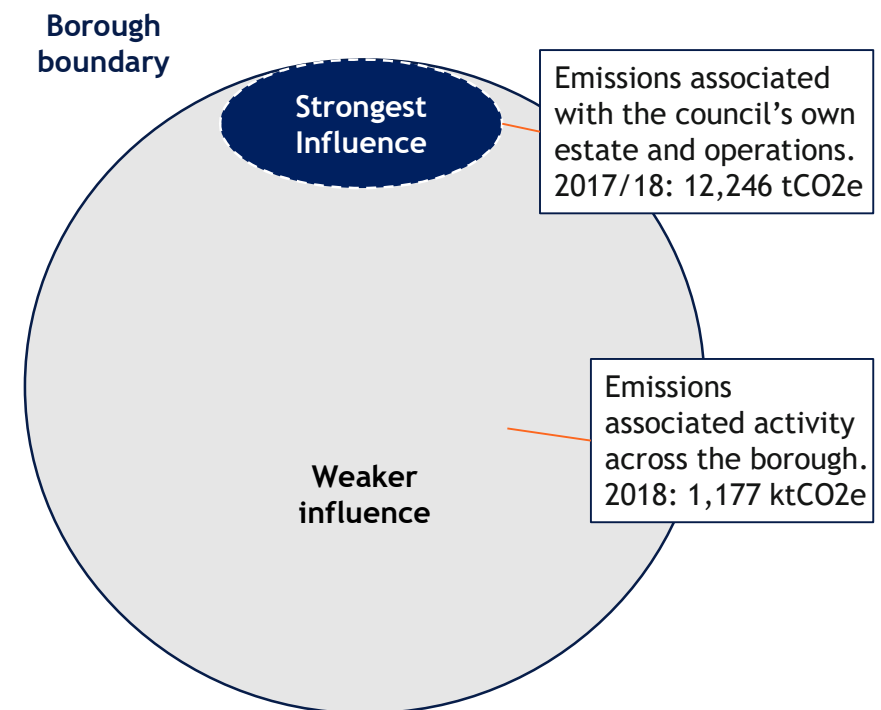
Slough Borough Council is directly responsible for just over 1% of the total emissions in the area.

However, the Council's influence extends far beyond this, through unique "convening powers"

The council is not fully responsible for the delivery of all actions set out in this plan, and it is imperative to involve other stakeholders.

Actions are categorised as:

- Slough Borough Council Actions
- Borough Wide Influence Actions



BUILDINGS

OVERVIEW

Scope of Sector & Emissions Sources

- 57.7% of Slough's total emissions baseline
- Commercial buildings significant - consider Slough Trading Estate & Data Centres
- Action required to reduce energy consumption of existing buildings, and improve new build standards
- Implementing the High Ambition pathway could lead to a 78% reduction in buildings emissions by 2040

SCATTER interventions & Action Goals

1. Improving building energy efficiency
2. Shifting off gas heating
3. Low carbon lighting, heating, appliances



TRANSPORT OVERVIEW

Scope of Sector & Emissions Sources

- 30.8% of Slough's total emissions baseline
- Dense road networks and the vicinity to the M4 corridor is likely to further encourage uptake of driving
- Implementing the High Ambition pathway could lead to a 66% reduction in transport emissions by 2040

SCATTER interventions & Action Goals

1. Travelling shorter distances
2. Driving less
3. Switching to electric vehicles
4. Improving freight emissions
5. Reducing aviation emissions



WASTE

OVERVIEW

Scope of Sector & Emissions Sources

- 0.7% of Slough's total emissions baseline
- Waste forms one of the council's 5 key objectives in the council's motion on climate change and is considered of high strategic importance
- Implementing the High Ambition pathway could lead to a 69% reduction in waste emissions by 2040

SCATTER interventions & Action Goals

1. Reducing the quantity of waste and wastewater
2. Increasing recycling rates



INDUSTRY OVERVIEW

Scope of Sector & Emissions Sources

- 10.9% of Slough's total emissions baseline are from industrial processes
- The emissions associated with industrial buildings are considered as part of the buildings sector, emissions from industry relate to those arising from industrial processes where materials are chemically or physically transformed
- Industrial emissions in Slough rose between 2005 - 2017 due to change in the local economy
- Implementing the High Ambition pathway could lead to a 86% reduction in industry emissions by 2040

SCATTER interventions & Action Goals

1. Shifting away from fossil fuels
2. More efficient processes



ENERGY SUPPLY

OVERVIEW

Scope of Sector & Emissions Sources

- Emissions from energy supply are not accounted for separately in the pie chart to avoid double counting
- Slough has the greatest renewable capacity per unit land area across Berkshire's Local Authorities, with a total of 123,600 KW of installed capacity
- The two main contributors to energy generated from organic fuels include municipal solid waste (53,100 KW) and plant biomass (63,000 KW)
- 3,500 KW of Solar PV is currently installed across the borough

SCATTER interventions & Action Goals

1. Solar photovoltaics (PV)
2. Wind
3. Other renewable technologies



GREEN SPACE AND OFFSETTING

OVERVIEW

Scope of Sector & Emissions Sources

- The use of green spaces and natural environments has a significant role in acting as a carbon “sink”
- Slough very urban- Emissions (and sinks) from the natural environment are relatively low
- Council has already committed to increasing tree coverage, and the developments of Upton Court Park and Jubilee Wood have already achieved some carbon capture
- Consider co-benefits of action

SCATTER interventions & Action Goals

- Increasing tree coverage and tree planting
- Sustainable land management
- Sustainable consumption

And... Considering offsets: Can be applied to “close the gap”



COUNCIL'S WIDER INFLUENCE

OVERVIEW

- The Council's role is unique
- This chapter explores ways the council can influence stakeholders across the borough
- Actions are “crosscutting” and apply to many sectors

Action areas explored:

1. Drive behaviour change in the council and improve understanding
2. Reduce direct carbon impact of procurement contracts
3. Enable wider change across the borough
4. Lobby national government



ADAPTATION

OVERVIEW

Adaptation to climate change among 5 key objectives on council's commitment

Aligns with guidance stating adaptation and carbon reduction should be considered together

Key Risks Identified

What must be adapted to? Research built on existing regional and national risk assessment work. 3 key areas prioritised:

- Flooding
- High temperatures
- Risks from shortages in public water supply

Action Planning - how do we adapt? Actions divided by impact area:

Strategic

Natural
Environment

Economic

Social



THE COST OF ACTION

Indicative costs of action are given throughout the plan.

- To achieve carbon emissions reductions on the scale required by the High Ambition pathway:
 - Total capital expenditure required is in excess of **£3.2bn**
 - Operational costings analysis indicates that over **£4.1bn** worth of potential savings may also be realised
- It is the responsibility of the **entire borough** to bear the cost of the transition
- Approximately **30 FTE** required across the Council, should all actions be undertaken
- The analysis does not include a cost of the recommended climate change adaptation actions

Capex (k£)	Opex (k£)	Description of cost
490,250	NE	Retrofitting existing households with wall insulation
90,350	-87,750	Retrofitting household heating systems with electrified systems over gas boilers; opex represents fuel bills
35,800	NE	Constructing new-build homes to PassivHaus standard, rather than Part L
188,250	NE	<i>Retrofitting new-build homes to PassivHaus standard having constructed to Part L</i>
-	3,950	Additional fuel bills as a result of switching to electrified cooking systems in domestic households
179,200	-2,750	Retrofitting non-domestic buildings with energy efficiency measures
31,000	53,000	Retrofitting non-domestic heating systems with electrified systems over gas boilers; opex represents maintenance but not fuel costs
286,150	-	New transport infrastructure for on-road vehicles and rail
-	-690,500	Demand reduction and efficiency gains in the transport sector
1,369,050	-3,907,000	New on-road vehicles and rail transport
699,800	569,800	Installation & maintenance of local renewable energy sources
-	-35,300	Savings in gate fees as a result of increased recycling and reduced overall volume of waste
250	150	Planting & maintenance of additional new woodland
9,050	NE	Scaled portion of UK-wide action for decarbonising industry
3,190,900	-4,109,650	Total estimated costs

05

CONCLUSIONS & NEXT STEPS

CONCLUSIONS & NEXT STEPS

- Achieving the SCATTER High Ambition Pathway would result in a 75% reduction in emissions by 2040
- While the interventions outlined should be prioritised, additional shifts will be needed in order to achieve carbon neutrality.

Actions recommended in areas assessed to have the highest carbon reduction impact are considered as the highest priority:

- **Improving Building Efficiency** in domestic and non-domestic buildings
- **Reducing transport emissions** with a focus on road transportation
- Increasing **renewable energy supply**

Key next steps:

- Confirm priority action areas
- Work with other stakeholders to gain buy-in and commitment
- Monitor and report on progress
- Consider a variety of funding streams



06 Q&A