

Decarbonising transport

The role of land use,
localisation and accessibility





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This briefing forms part of the Decarbonising transport series, a toolkit of seven evidence-based policy briefings prepared for the Local Government Association by the DecarboN8 Research Network and the Centre for Research into Energy Demand Solutions.

The briefings are designed to help councils set goals for reducing carbon emissions from transport and understanding a range of key options available to them to make the rapid progress required.

Decarbonising transport will require an ambitious package of measures and so, whilst the briefings are designed to provide clear options for specific policy areas, councils will need to design the right mix for their own context.

You can find the other briefings online at: www.local.gov.uk/decarbonising-transport or by emailing info@local.gov.uk

The decarbonising transport series

- Getting carbon ambition right
- The role of buses
- Accelerating the uptake of electric vehicles
- Climate smart parking policies
- The role of land use, localisation and accessibility
- Travelling less and the role of online opportunities
- Growing cycle use

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Introduction

For the UK to reach its goal of net zero carbon emissions by 2050, all councils need to take rapid action to decarbonise their transport systems.

This will include action to support people to make their journeys by more carbon and space-efficient modes (such as walking, cycling, public transport and ride-sharing), and to support the take-up of zero tailpipe emission vehicles, for those journeys that will continue to require a motor vehicle.

However, shifting modes of travel is only part of the toolkit available to councils: transport can also be decarbonised by reducing the distances people have to travel, and the number of trips they have to make.

This briefing explores the potential of planning and design of the built environment to reduce the length of trips, and to make it possible for people to do more activities in one place (known as 'accessibility planning'). Achieving this is key to making active and sustainable modes of transport competitive with the car.

Land use planning powers, accessibility planning, and design techniques to support transport decarbonisation are relevant both to the planning of new greenfield development and for the management of existing built up areas and their communities.

This briefing therefore touches on councils' duties and powers as local planning authorities, local transport authorities, providers of local strategic leadership, and service providers.

Post-COVID-19, this subject is more vital than ever. There is also an opportunity: people used the period of lockdown to gain a renewed appreciation of facilities on their doorstep such as local shops and parks. However, people without access to a good mix of local facilities and who did not have access to a car lost out.

Accessibility planning for neighbourhood facilities might, therefore, be thought of also as part of councils' resilience planning responsibilities.

RELEVANT POLICY STRANDS

The **National Planning Policy Framework (NPPF)** (2019)¹ sets out the Government's planning policies for England and how they should be applied by local planning authorities. NPPF Chapter 9 *Promoting Sustainable Transport* sets out the planning policies related to this briefing.

The Department for Transport's **Cycling and Walking Plan for England** (July 2020)² sets out 'a bold vision for cycling walking' with themes including 'Putting cycling and walking at the heart of transport, place-making, and health policy' and 'empowering and encouraging councils', including through £2 billion of new investment over the period 2020-25, 'the great majority of which will be channelled through local authorities'.

The Government's **Housing Infrastructure Fund (HIF)** is £4.1 billion of grant funding to fund infrastructure including roads and community facilities, allocated to councils on a competitive basis in the period 2018/19-2023/24.

Neighbourhood plans are one element of a suite of powers for local communities in England provided for by the **Localism Act 2011** which are potentially relevant to decarbonising transport through localisation, including designation of **assets of community value**. Both LGA and Ministry of Housing, Communities and Local Government (MHCLG) have published guidance on neighbourhood planning.^{15,16}

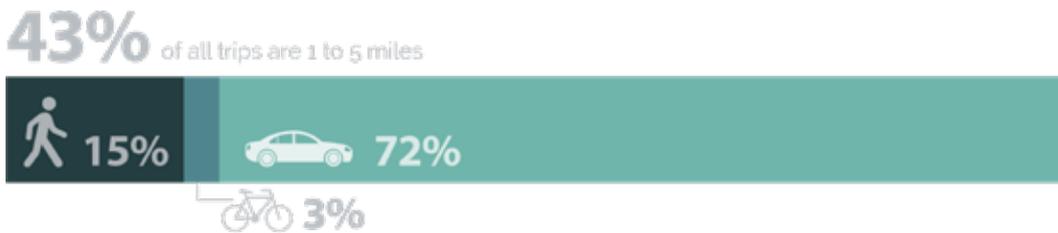
Key facts

Reducing the distance people need to travel to access everyday facilities is an effective way to decarbonise transport. If the distance people need to travel to access schools, shopping, leisure, and recreation facilities is below one mile, then they are much more likely to access those facilities by walking.³

Distance to reach key services: urban vs rural

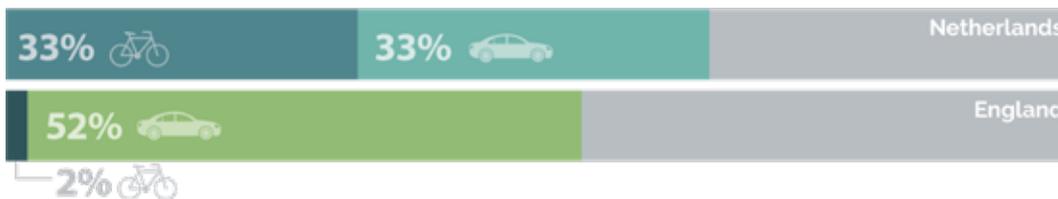


How short trips are made in England



Percent of short trips made by car and bicycle, England vs the Netherlands⁴

Trips of approximately 5 miles and under



Trips of approximately 5 to 10 miles



Areas for Action

All planning decisions matter for decarbonising transport. Although any given individual decision on a housing development or commercial site might seem small in terms of overall transport demand, every planning decision builds-in an inherent advantage to one kind of transport or another that lasts for decades.

The kinds of development being permitted give a very public signal about how seriously a council is taking the climate emergency.

For a development to be truly low carbon, the strategic location, the layout and urban design, the land use mix and the transport provision need to be got right.

Major new workplaces and other trip generating developments must be located where they are easily accessible by active travel (cycling and walking) and public transport.

For local planning and transport to support carbon reduction there are three key areas of influence:

- spatial planning and land use planning
- 'accessibility planning'
- attractive and liveable neighbourhoods.

Action Area 1 Getting spatial planning and land-use planning right

At the heart of using the planning system to reduce transport emissions is the need to make it easy for people to get to the facilities and places they want or need to visit.

The relative journey time of car and non-car modes is a key factor, but other factors have also been shown to increase the mode share of sustainable and active modes. For example:

Mixing land-uses – making more services available in a locality.⁵

Designing developments to promote **high quality walk and cycle facilities**.⁶

Putting developments which lots of people use near **good public transport** (eg homes, shops, and offices).⁷

Having an **integrated approach to parking** policy, recognising that the choice to drive relates to the ease of parking at home and at the destination.⁸

Building land-uses at **higher density** makes fulfilling the above goals much easier.⁹

Putting things in the right place

Land allocations for developments that will attract large numbers of people should be placed at locations close to public transport stations.

Land allocations for developments such as industrial and logistics facilities, with high numbers of freight vehicle trips but low numbers of person trips, should be put at locations close to the strategic road network.

High density housing is best located close to rail or tram stations. Medium density housing and smaller workplaces are best located close to high quality bus corridors.

Research shows that building at density around good quality public transport in suburban areas reduces the likelihood of car commuting.¹⁰

For example, Bath Riverside is a brownfield redevelopment site for new offices and housing, located 1 kilometre west of Bath city centre.

In addition to good walking facilities to Bath, and 14 different bus routes, every household is entitled to a variety of sustainable transport enticements. These include a free one-month bus pass, a free car club membership and a £100 cycle voucher. As of 2019, 70 per cent of new residents at the site use a form of sustainable mobility for their primary travel.¹¹

Getting parking right

A commercial development needs accessibility, and where this can be provided by walking, cycling or public transport then maximum parking standards are appropriate. Maximum parking standards set an upper limit for the number of parking spaces in a development.

In London, TfL have a clear system of parking standards related to the public transport accessibility level (PTAL) of the site. Maximum parking standards for residential developments are more complicated, but such standards can be made acceptable to residents through thoughtful planning and engagement.

For example, in Ørestad, Copenhagen, parking provision for all new homes is in a neighbourhood multi-storey car park owned by the public development corporation, integrated with a neighbourhood convenience store. The rent for parking spaces is used to fund upkeep of the public spaces and local community facilities.

A companion briefing in this series covers parking in more detail.¹²

Creative re-designation of land use

High street retail has been in decline for a number of years, and this is accelerating following the coronavirus crisis. Office developments in city centres may be less sought-after following the shift to home working in formerly office-based employment as a result of coronavirus.

There are both good and very bad examples of re-purposing both office and retail space for new housing. Good examples include Ryedale House in York and the Broadwalk shopping centre in Edgware.

Recent proposed changes to permitted development rights will reduce the scope for planning authorities to influence the quality of developments. However, in terms of transport decarbonisation, an increase in town and city centre living is positive.

Ensuring the right design quality

There is a housing shortage in the UK and local authorities have stretching housing targets to meet. However, this does not excuse poor transport outcomes in new developments.

To meet new housing targets outlined in the National Planning Policy Framework (NPPF), new residential locations are often chosen based on how quickly these sites can be developed.

As discussed in the 2018 Transport for New Homes report¹³, this approach inevitably leads to car-dependent communities. If a transport assessment is required of the developer, it is often limited to an impact assessment on road traffic nearby.

Furthermore, if road accessibility is not already present, developers can request government assistance to co-fund new roads. Such practices are inconsistent with the UK's climate targets and increasingly at risk of legal challenge.¹⁴

Instead, thoughtful design, which prioritises people over cars, can deliver sustainable, liveable, child-friendly developments. Such developments will include well integrated walking, cycling and public transport facilities, local food shops, and neighbourhood parks and green spaces.¹⁵

Local plans and the climate emergency

All new build schemes being built in the 2020s must be compliant with a pathway to net zero carbon by 2050. The National Planning Policy Framework (NPPF) places, amongst other things, a requirement on councils to mitigate climate change and move to a low carbon economy.¹⁶

What might have passed as ‘sustainable development’ before the climate commitments set out in the Committee on Climate Change’s Net Zero report¹⁷ will no longer suffice.

Local plans will need to be consistent with the carbon ambitions of the various climate emergency declarations and decarbonisation plans which both national governments and local authorities are committing to.

New local plans must be drawn up with this in mind, and existing plans may need to be revisited, or they may be subject to further challenge.¹⁸ There is more limited capacity for councils to decline developments once they are agreed in the local plan.

Action Area 2: Planning existing places for accessibility and localisation

Using planning powers and techniques to deliver low-carbon living is not just about the design of new developments. It is also about the management of existing built-up areas and their communities.

The purpose of most trips people make is to access the activities they need or want to do: jobs, schools, healthcare, shops, leisure, and socialising. Providing good transport is one means of ensuring people get the accessibility they need, but it is not the only tool in the box.

Local government, as both the planning authority and service provider, can help ensure that everyday facilities are within easy walking or cycling distance for residents in existing communities: planning for attractive, liveable, and walkable local neighbourhoods.

Good for climate and communities

Although this briefing focuses on the advantages of walkable neighbourhoods for decarbonising transport, the benefits to communities are much wider.

Co-benefits include better public health (through better air quality and the physical and mental health benefits of more exercise), stronger communities, and lower levels of noise.¹⁹

The coronavirus lockdown brought home how important it is to be able to access everyday needs locally, as well as how difficult life is when key services and facilities are not within easy reach.

This includes not only access to shops, schools and health centres, but also, for example, easy neighbourhood access to parks and green spaces for recreation and exercise.

Neighbourhood accessibility planning

Neighbourhood planning “gives communities direct power to develop a shared vision for their neighbourhood and shape the development and growth of their local area”.²⁰

In England, the term is mostly used in the context of the powers created by the Localism Act 2011 for parish councils and designated neighbourhood forums to prepare statutory Neighbourhood Plans and put them to a local referendum.

The Local Government Association’s Planning Advisory Service (PAS) has produced detailed guidance for councils on this agenda.²¹ New development is usually the thorniest issue in neighbourhood planning, but its scope can be wider.

Accessibility planning is “the process of ensuring that responsibilities are clear for ensuring that all people can get access to essential services. Accessibility planning checks that needs are being met and organises solutions to the identified problems”.²²

Accessibility planning was a key principle in the government’s guidance for the second round of local transport plans (2006-11) and was related to the agenda for addressing social exclusion.²³

The next step is for accessibility planning to be joined up with local neighbourhood planning. With its potential to decarbonise everyday access to facilities in a way which responds directly to the needs and aspirations of communities, neighbourhood accessibility planning is a win-win approach which is already available.

The concept of the “20-minute neighbourhood” as a long-term planning strategy has been proposed as an alternative to car-dependency. This is the vision of neighbourhoods where people’s daily needs are within a 20-minute walk of their home.²⁴

Part of this agenda is about maintaining and enhancing local facilities in existing neighbourhoods. However, it also recognises that the vast majority of developments built in recent decades favour access by car.

Accessibility planning for decarbonising transport, therefore, is also about organising transport solutions to existing accessibility challenges.

Councils are naturally at the centre of an approach that joins up land use planning, local transport planning and the provision of local public services.

Positive examples of councils tackling accessibility

The Greater Manchester Transport Strategy 2040 puts “integration at the heart of its strategy”, aiming for “maximising choice and supporting low-car lifestyles, made possible by integrated land use and transport planning”.

This involves putting improving the quality of life for residents through “connected neighbourhoods” on an equal footing with other concerns and is backed by a major increase in investment in local walking and cycling facilities.²⁵

In Liverpool, the Royal Liverpool Hospitals NHS Trust had proposed moving out of the city centre to an edge-of-town location as part of its major redevelopment plans.

Liverpool City Region’s transport body Merseytravel used accessibility planning analysis techniques to show that the additional costs of the move in terms of reduced accessibility and transport impacts would exceed the savings, and the decision was taken to redevelop the hospital complex into a new, world class health and academic precinct on its existing city centre site.²⁶

The Mayor of London’s Transport Strategy has set the target of 80 per cent of all trips in the city to be made on foot, by cycle or using public transport by 2041.²⁷ To do this, it has put “the healthy streets approach” at the heart of the strategy.²⁸

The Mayor of Paris has recently introduced the policy of “Paris: ville du quart d’heure” – the 15-minute city. All services and activities fundamental to wellbeing will be accessible within 15 minutes by walking, approximately three quarters of a mile. Key to realising the 15-minute city is making sure that there is a good mix of services and very high-quality walking and cycling access.²⁹

The 20-minute neighbourhood standard has been adopted in Melbourne, Australia, where two pilot projects have been under way since 2018.³⁰

Plymotion is a council initiative to make it easier for residents to get around Plymouth by sustainable modes. Key to this initiative is offering residents the opportunity to work with a travel advisor to rethink regular journeys and how to make them more sustainable.

Part of this is learning more about what can be accessed where. Preliminary assessments of the four-year initiative (2017-2021) show neighbourhood impact: residents are walking and cycling more for local journeys.³¹

Conclusion

Planning for localisation and accessibility is something which every council can influence to help address the climate emergency.

Putting new developments in accessible locations which are well designed and accessible to people's every day needs is key.

Having a good range of facilities located within one to five miles of residential neighbourhoods makes it much more likely that people will travel by active modes.

Compact neighbourhoods also make it easier to deliver transport interventions such as bike lanes, which encourage more people to take up cycling.³²

Building development which is less car-dependent matters for delivering on our climate commitments, but it also matters for people.

Given the option, most people prefer greener and more liveable neighbourhoods. Space that is not given over to the car can be used to create nicer places to live, play and exercise.

Places which do not require a car to access everyday opportunities are also more inclusive and resilient.³³ Recent work has shown that, too often, our planning system does not yet deliver these kinds of outcomes.³⁴

The climate emergency demands a more ambitious approach from councils, working together with developers to deliver a zero-carbon future.

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