Research reveals Bristol won't reach 2030 carbon neural target without major transport transformation

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Bristol must make significant changes to its transport sector in order to meet its 2030 carbon neutral target, according to a new report led by a team of postgraduate students at the University of Bristol.

The report, "Bristol Net Zero by 2030—a Modal Share for a Sustainable Transport System," found that the number of car journeys need to be cut by 31 percent and at least 55 percent of journeys need to be made on foot or bike to hit the ambitious target in the next 10 years.

In 2019, Bristol City Council became the first local authority in the UK to declare a climate emergency. The Sustainable Transport Network ("STN") recommended significant changes to Bristol's modal share, which is the percentage of travellers using a particular type of transportation within a city, like walking and cycling ("active travel"), travelling by car and using public transport.

The report examined the previous modal share recommendations made by STN in 2019, to see whether they would help deliver the 88 percent reduction in transport emissions needed to meet Bristol's 2030 target of being carbon neutral.

These recommendations stated that out of all journeys made in Bristol, at least 40 percent need to be made by active travel, 20 percent by public transport and at most 30 percent by car.

The students found that STN's recommendations did not go far enough. In order to meet the targets in Bristol's One City Plan, the modal share shift would need to be more extreme, with 25 percent by public transport, 55 percent by active travel and 20 percent by car. They also discovered that Bristol lacks the data needed to monitor the ongoing travel behaviour of Bristol residents and that a collaborative framework between transport stakeholders in the city is needed.

The amount of congestion in Bristol is three times the national average and emissions from the transport sector remain the largest in the city at 32 percent. At the time of the study, which took place before the COVID-19 lockdown, car journeys are the most preferred way of travelling for Bristol citizens at 51 percent, while journeys by public transport sit at 19 percent of and active travel at 30 percent.

Coupled with funding challenges and Bristol's expected population growth, the report highlights that transport management and provision in Bristol is "complex and fragmented" yet that reducing congestion and improving buses and public transport were the top two issues for Bristol residents in 2017 and 2018.

The report goes on to recommend significant investment across public transport, pedestrianisation and disincentives for driving.

In order to achieve the report's proposed transport targets, walking and cycling must be made more accessible and should be prioritised. Building more connected, segregated cycling infrastructure and introducing more low-traffic neighbourhoods are likely to improve safety and facilitate a shift to more active ways of travelling, particularly among women and children.

This will, according to the report, have a positive impact on disincentivising drivers, alongside Bristol's proposed Clean Air Zone

plans which are set to come into force in 2021. The report also states that investment in bus prioritisation measures is key to achieving the proposed modal share target of 25 percent.

Postgaduate student Clare Watson, one of the five students to undertake the research, said: "It is widely acknowledged that we are in a climate emergency and that huge changes need to be made in response. What is less widely known is what this actually means for our day-to-day lives.

"Our findings show that travel in Bristol is currently dominated by cars, when what we urgently need is for more people to travel by bus, and most importantly, by foot or by bike. We need our road spaces transformed into safe and spacious streets, with designated cycling lanes and travel networks that connect the entire city.

"There are limited records of our travel habits, meaning efforts to create a more sustainable transport system often offer little more than intelligent guesswork. Our research provides the best possible estimation of the way that people in Bristol are travelling today, and the change in travel habits that all need to meet for the city to become net-zero."

The report also urges coordination between all transport stakeholders in the region, particularly West of England Combined Authority, Bristol City Council, and members of the Sustainable Transport Network.

Alan Morris, chair of the Sustainable Transport Network said: "Clearly, the report shows we have a lot of work to do as a city if we are going to meet the ambitious target of being carbon neutral by 2030.

"We are passionate about making Bristol a clean, environment-friendly city with inclusive access to active and public transport, but we can't do that without more protected road space for buses, cyclists and pedestrians, and other strong measures which reduce people's reliance on

cars."

The students calculated the estimated emissions by 2030 based on Bristol's current transport emissions and used data from the Department for Transport, the Office of Rail and Road, Sustrans and the Centre of Sustainable Energy report with consultants Ricardo and Eunomia.

The report was commissioned by the Sustainable Transport Network, a group of transport organisations whose goal is an integrated and sustainable transport network that can be shared by all.

More information: Bristol Net Zero by 2030—a Modal Share for a Sustainable Transport System: www.bristol.ac.uk/media-librar … transport-report.pdf

Provided by University of Bristol

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