

What do residents in tenement flats think of electric vehicles? Here's what we discovered

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South Seeds is a Scottish Charitable
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Overview

Electric vehicles reduce air pollution and the move to electric vehicles, for those who still need access to a vehicle, will be an important contribution to the decarbonisation of Scotland's transport system. The UK Government has agreed to halt the production of new petrol and diesel cars by 2035, and tighter targets may follow. The Scottish Government has agreed to phase out petrol and diesel cars by 2032 to meet its more challenging carbon targets, and while some people will choose to drive an electric car, others may consider different modes of travel depending on their circumstances. But how much do people know about their options?

Electric cars can be charged at public charge points, which are listed at chargeplacescotland.org as they become available. Owners of electric cars can also use their domestic electricity supply to charge while at home. However, for people who live in tenements – multi-occupancy buildings – the installation of charging equipment in front of the building is something all the owners of the flats will have to agree on. This could create an extra barrier to the electric vehicle transition.

Glasgow is the largest city in Scotland and has a population of 600,000. It is known for its tenements, the most widely built form of housing in the 19th and 20th century. The challenge of providing existing tenements with electric vehicle charging facilities is currently being considered by Glasgow City Council. This report takes a tenement street and looks at options to switch to electric vehicles in consultation with residents.

Background

In December 2018 Glasgow introduced Scotland's first low-emission zone (LEZ). It aims to cut air pollution in the city centre by reducing the amount of vehicle exhaust fumes. The LEZ currently only applies to buses, but when fully implemented in December 2022 it will cover all vehicles. Electric vehicles, which do not produce exhaust emissions, will be able to enter the LEZ.

In May 2019 Glasgow City Council declared a 'climate emergency' and in September set a target for the city to become 'carbon neutral' by 2030.

In 2017, Glasgow City Council published a City Development Plan with guidance on sustainable transport (SG11). This outlines the provision of electric vehicle charging for new builds but does not make recommendations for existing buildings with multiple occupants.

A tenement is any multi-occupancy building, with most having several storeys. Most residents in tenements do not have sole access to the ground level in front of their home, raising the issue of how to install a vehicle charger linked to individual flats' electricity meters.

South Seeds is a community-led organisation working in the South Central area of Glasgow where more than 90% of the dwellings are pre-1919 sandstone tenements. More than 80% of the residents in South Seeds' area use stairs to access the street level from their homes.

Glasgow has a great public transport system but car ownership is growing faster than in Aberdeen and Stirling, while in Edinburgh it is static and possibly starting to decline. In 2011, 49.2% of Glasgow households had access to one or more cars or vans.

At the same time, car clubs in Glasgow have been growing in popularity and can complement active travel and public transport use for residents who only need access to a car occasionally. With more than 1,400 registered users and nearly 900 bookings made monthly, Glasgow hosts one of the most heavily utilised car clubs in the country. Car clubs offer solutions to electric vehicle ownership, cost barriers, congestion, parking limitations and air-quality issues. They also better match the vision of a sustainable, equitable and healthy future city.

To provide a snapshot of the future transport plans of people living in tenements, South Seeds surveyed Albert Avenue on Glasgow's southside. The street is 400m long, with pre-1919 four-storey tenements on both sides. It has a total of 176 tenement flats (a combination of two and three-bedroom), with an estimated population of more than 350 (using a conservative average of two occupants per household).

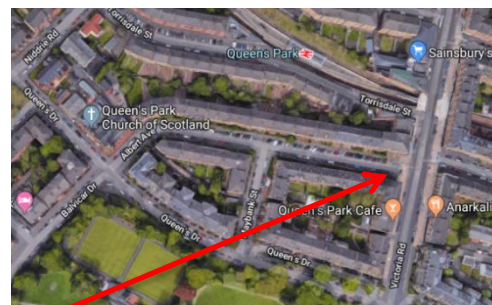
Glasgow's Housing Strategy 2017-2022 notes of the 297,070 residential properties in the city 73% are flats, which means that there are more than 200,000 flats in Glasgow. Of these about 70,000 flats (or 20,000 blocks) are pre-1919 tenements, which is the type examined in this report.

Why survey Albert Avenue?

The area is one of the most densely populated in Scotland. The surrounding streets, some of which have parking restrictions on them, are also home to four-storey buildings. Albert Avenue has space for 94 parked cars, plus two designated disabled bays, and a parking area for four motorcycles. Within 10m of the street there are eight bicycle stands, which can each take two bikes.

Local public transport connections are very good. There is a train station within 50m, with a journey time of seven minutes to Glasgow city centre, with trains often running five times an hour. There are also three regular bus routes, one of which has a night bus option, on the adjacent Victoria Road, which also run to the city centre and connect with other neighbourhoods. The street is 2.3 miles from the city centre, which can be reached in less than 50 minutes on foot. More than 10 bicycles have been available to hire through a nextbike scheme near the train station for three years. Four electric assist bikes have recently been added to the local nextbike station.

There are a mixture of owner occupiers and privately rented households on the street. Properties are sought after and typically sell in less than a month. The Scottish Index of Multiple Deprivation 2016 puts Albert Avenue in the five decile, which is midway between the most deprived and most affluent areas in Scotland. To our knowledge there are no social housing properties on the street. So, like many mixed-tenure tenemental streets in Glasgow (and unlike areas which are dominated by housing associations), there is no single organisation with the funds and authority to futureproof the streetscape apart from Glasgow City Council.



South Seeds is located on the corner of Albert Avenue and Victoria Road

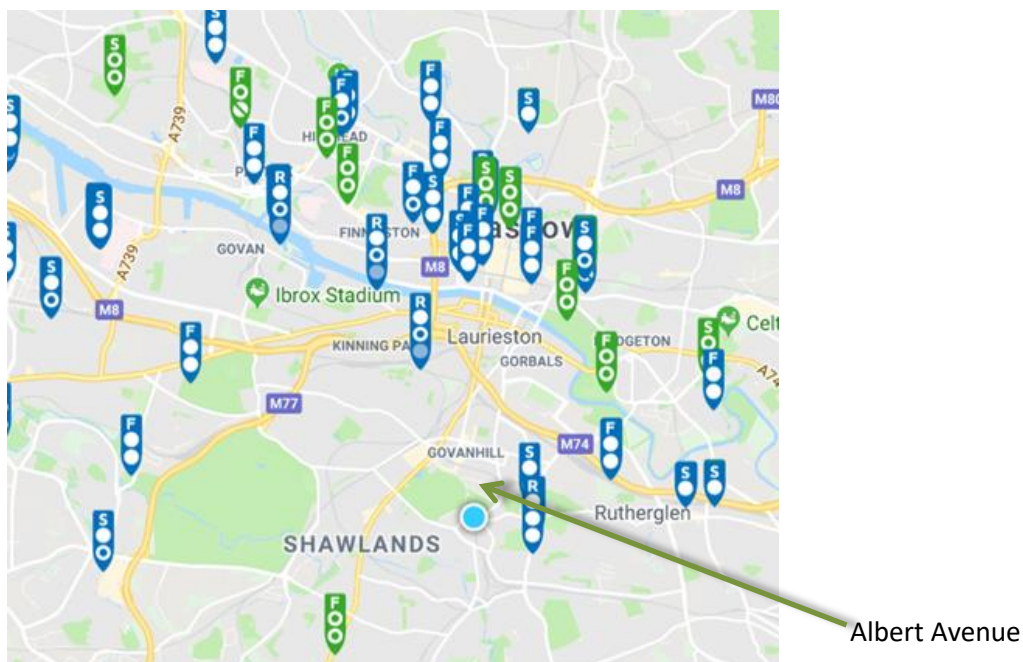
Albert Avenue, unlike many of the nearby streets, is not subject to traffic regulation orders, which means that official planning restrictions do not apply for introducing electric vehicle charging.

Building capacity on a tenement street

We spoke face to face with more 50 residents of Albert Avenue at different times of the day, including the early and late evening when people who work would be at home. The survey took around five minutes, or longer if residents had questions.

As well as collecting data, the consultation meant we could share information with residents about electric vehicles and opportunities they may want to factor in to their long-term plans. South Seeds was able to share knowledge about electric car chargers coming to Victoria Road in early 2020, and that electric bikes will be available from South Seeds' tool library in the next year.

If residents requested further information a booklet about electric vehicles with up-to-date non-commercially driven advice, including information on considerations and charging, was left with the household. The booklet included the snapshot below from chargeplacescotland.org information showing local electric car charging facilities and a link to the website to encourage further research at home.



Results - a snapshot of a tenement street

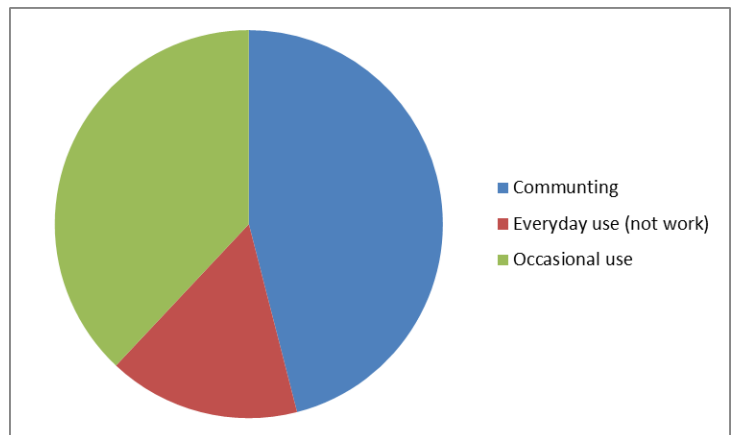
Residents clearly live on the street because of its good transport connections and all responders cited walking and public transport as part of their regular travel arrangements.

57% of households have access to a car; 12% of which had more than one car per household.

35% of households don't include anyone who can drive.

42% households own bicycles, with the average number of bikes being two.

80% of those who would consider an electric car in the future explained it was too expensive for them just now. However, no one felt confident enough to quote current prices. The other 20% were simply not ready for a new car.



The reasons residents have cars vary

100% of residents asked for further up-to-date information on electric vehicles.

87% of drivers say they would consider hiring an electric car if available and affordable on their street. More than 33% say they may give up their own car if they had access to a car club vehicle.

66% of all residents surveyed are interested in trying electric bikes, which will soon be available from South Seeds' tool library to hire for up to one week.

Starting conversations at the door led to residents sharing additional information. Here are some quotes ...

"Twice a year we rent a car, mainly when people come to visit and we want to show them the lovely countryside"

"Only use my car to take the kids to visit my mum in Edinburgh. I would happily give it up if I could hire one easily"

"I tried the council electric bikes but I couldn't get them to work, they were too heavy for me"

"I have a 20-minute drive to work, there is no easy public transport route. I couldn't afford to purchase a car myself, my mum brought me my car"

"I'm happy with my car and I have no need for anything else"

"We only use our car for long trips up north"

"I gave up my push bike and now I simply use the nextbike push bikes; it is cheaper than maintaining a bike"

What did we find out?

This project has given South Seeds the opportunity to analyse how the decarbonisation of transport could affect our project area, and assess what information southside residents would find useful to consider future transport decisions.

More than one third of residents have a petrol or diesel car for occasional use parked on Albert Avenue and a car club electric vehicle for hire would result in some of the cars used occasionally eventually leaving the street. Survey evidence shows a high (87% households with drivers) interest in a car club.

On balance there is slightly more interest in electric bikes than electric cars, simply because the bikes also appealed to the non-drivers.

There is a demand for up-to-date information about how switching to electric vehicle use will affect people's lives. No one mentioned not being able to charge an electric car on the street as a barrier to ownership; the only barrier to ownership cited was price.

In the absence of clear information there is no evidence residents are making plans for or considering future low-carbon travel methods. This project, where each responder was left with a booklet of clear information gives us the opportunity to revisit this street in six months to find out if thinking has changed.

Where appropriate, for example if households could drive and were particularly keen on finding out more about charging, we asked if they would be prepared to work as a close to install their own designated charging facility. While some responders said they might, it was clear that many did not know all their close neighbours and this could be something better achieved with external support. A four-storey street may not be the best place to start this type of project, as residents of tenement closes with fewer flats usually know one another better and have a history of joint decision making.

Finally, we were able to test South Seeds' brand recognition by knocking on doors within five minutes' walk from our office. We are pleased to report that more than 90% of residents approached during this consultation said they had some knowledge of South Seeds and were happy to speak to us further.

Learning for stakeholders

Residents are ready for more than information on electric cars and bikes, they want to be able to borrow, hire or own them. The streetscape in tenemental areas is going to have to change to support residents to move to decarbonised forms of transport.

⇒ Electric street cars for hire will result in some residents giving up car ownership which will make parking easier.

⇒ Electric vehicle changing facilities on the street (i.e. within eyesight) would give those with equity the green light to purchase an electric vehicle.

⇒ On-street cycle storage is required for residents to invest in electric bikes, which are heavier than non-electric bikes and would need to be carried upstairs for 75% of the residents on the street who live above the ground floor.

Together the above changes to the streetscape would only result in 2.5 car parking spaces being withdrawn from public use and possibly up to 10 petrol/diesel cars being taken off the street.