

Technical Note

Project	Birmingham's Clean Air Zone
Title	Response to Consultation

1 Introduction

This document sets out Birmingham City Council's analysis of comments received to the consultation by theme and its response to the comments, issues and recommendations. Where comments have been made multiple times, these have been grouped together and a single response has been issued. The themes addressed include:

[Theme A – Location](#)

[Theme B – Vehicles included within the charge](#)

[Theme C – Level of charge](#)

[Theme D – Impacts of CAZ](#)

[Theme E – Improvements to Air Quality](#)

[Theme F – Discounts and Exemptions](#)

[Theme G – Suggestions of Support](#)

2 Theme A – Location

There was both support and opposition for the proposed boundary of the Clean Air Zone. Other key themes were:

- [Specific areas should be excluded](#)
- [CAZ is unfair/ creates difficulties for those located just inside its border](#)
- [The CAZ should be larger](#)
- [The A38 should not be included](#)

2.1 Specific areas should be excluded

Some respondents felt the Jewellery Quarter in particular should be excluded from the CAZ as current and forecast NOx levels are not predicted to be exceed legal limits in this area. It was noted that the Jewellery Quarter in particular operates many small and independent specialist businesses who are already struggling due to other factors such as the internet and an additional charge would put many out of business. Other areas respondents felt should be excluded from the charge included: Digbeth and Cheapside, Broad Street and Birmingham City University.

BCC response: The A4540 Middleway provides a logical boundary for the Clean Air Zone. By excluding specific areas, this would cause more difficulties for drivers navigating through Birmingham. It would also increase the complexity in administration and would not deliver the necessary air quality benefits for Birmingham. In developing the proposals BCC has had to seek to strike a balance between achieving air quality improvements and the impacts on individuals and businesses in terms of compliance costs. It is considered that the proposed boundary and the proposed CAZ class achieve this balance. Reducing the size of the scheme would reduce the overall impact and the potential for air quality improvements to be realised e.g. because less vehicles travelling into the city centre would be required to meet the minimum standards.

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An advantage of the proposed boundary is the use of the A4540 Ring Road which will help make the scheme more understandable for drivers.

2.2 The CAZ creates unfair difficulties for those located just inside its border

Some respondents felt that the location of the CAZ is unfair and creates difficulties for those who are located just inside the border as they would be charged the same amount to drive to their house, which may only be 100m inside the boundary, compared to somebody who is driving around the city all day producing significantly more pollution. There were also concerns over increased parking demand around the border.

BCC response: There is work currently ongoing to determine the exact boundary of the Clean Air Zone including premises with entrances from the ring road and exits in the zone. The CAZ will bring benefits in terms of public health and air quality to those on the periphery of the boundary. Most changes to traffic flows and increases in active travel journeys would likely occur within those areas within and in close proximity to the CAZ.

Although the Clean Air Zone would only set standards for the vehicles travelling into the zone, it is anticipated that it will have an impact on the wider fleet but also will shift some trips to other more sustainable forms of transport.

Given the anticipated levels of upgrading in response to the implementation of the CAZ, it is not expected that it will lead to significant levels of increased traffic around its perimeter and modelling does not suggest that air quality will worsen in peripheral locations.

With regard to concerns regarding parking pressure, the Council is already looking at options to expand parking controls around the city centre and has included an ask as part of the Full Business Case to fund the roll out of measures should on-street parking around the CAZ become an issue.

Residents located inside the CAZ border with a non-compliant vehicle will receive a two-year exemption from the charge and money towards the cost of a compliant vehicle or a travel pass with the scrapping of their vehicle (see [Theme F](#) for more details).

2.3 The CAZ should be larger

Some respondents felt that the zone should be larger, covering other areas they felt suffered from pollution including the ring roads itself and Kings Heath (mentioned the most frequently).

BCC response: BCC notes the calls for a larger CAZ. As noted the boundary has been proposed because it is in the area where air pollution is consistently highest across the city and where there is greatest exposure to this.

Initial high-level analysis of CAZ charging options for a larger CAZ have been undertaken. It is considered that the next logical boundary for a larger CAZ would be the outer ring road. However, initial appraisal of this option showed that it failed to meet the requirements of the primary Critical Success Factor due to significant deliverability risks related to physical implementation and enforcement. Transport modelling was also undertaken for a CAZ D outer ring road option to assess its ability to reduce the number of non-compliant vehicles beyond those delivered by CAZ D inner ring road option discussed above.

Based on the modelling it was concluded that the performance of the CAZ D outer ring road option would only be marginally better than that of the CAZ D inner ring road option in terms of reducing

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NO₂ emissions. This marginal change was considered not to be sufficient enough to ensure that NO₂ compliance in Birmingham would be achieved earlier.

In addition, the outer ring road would affect a significantly larger number of vehicles with significant likelihood that this would put pressure on the 2nd hand market. The cost and practicality of implementing the option will be prohibitive.

2.4 The A38 through the city centre should not be included

9% of individual respondents who answered question IQ10 felt that the A38 tunnels through the city centre should not be included. The A38 is seen as an essential link between the north and south of the city and by including the A38 in the CAZ would result in more congestion and pollution on the ring road with drivers seeking alternative routes to avoid the CAZ.

BCC response: The A38 has some of the highest exceedances of NO_x within Birmingham and therefore by excluding the A38 from the Clean Air Zone we would not meet the required air quality targets within the timescales set. Scenarios where the A38 through the city centre are closed or only through traffic was allowed on the A38 suggested that congestion and air quality issues were likely to be displaced to other parts of the city centre.

Although it has been noted that there will be some increases in traffic on the eastern section of the ring road it is not anticipated to be significant and will not lead to a displacement of poor air quality. For longer journeys there are alternative routes for traffic which are more appropriate.

Theme B – Vehicles included within the charges

This section addresses comments made during the consultation regarding which vehicles should be included within the charges of the Clean Air Zone. Respondents were asked to provide details on the type of vehicle used and the frequency and purpose of trips made into the Clean Air Zone. Comparisons have been made with existing data to understand who has responded to the consultation. Comments addressed relating to this theme include:

- [Respondents' fleet \(individuals and organisations\)](#)
- [Types of vehicles included in the charges](#)

2.5 Respondents' fleet (individuals and organisations)

2.5.1 Vehicle & fuel composition

Figure 2.1 shows the breakdown of vehicles owned/ leased which can be used to compare against Birmingham's fleet composition and their corresponding emissions.

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Birmingham vehicle fleet

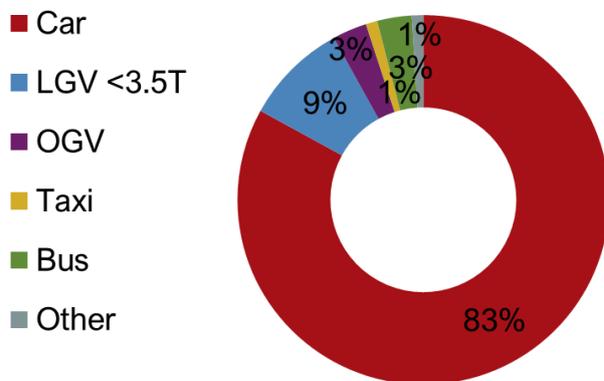
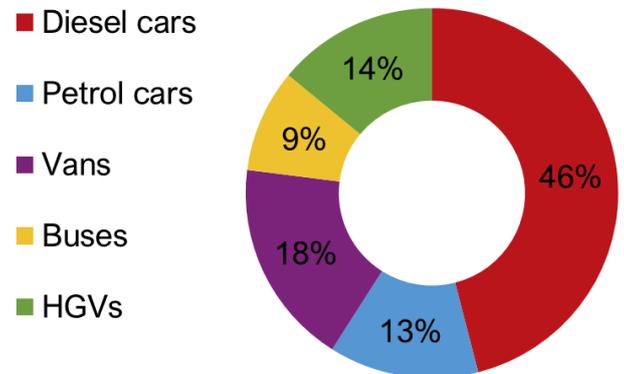


Figure 2.1 Birmingham fleet and fuel composition

Birmingham emissions composition



Consultation respondents fleet composition (individuals & organisations)

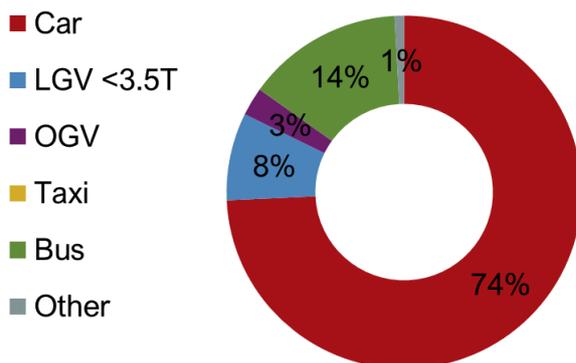


Figure 2.2 Consultation respondents fleet and fuel composition

The figures above show the comparison between the fleet composition of vehicles entering the A4540 Middleway against those who responded to the consultation. The response from cars and LGV's was very representative of the fleet composition of Birmingham

2.5.2 Journeys in to the CAZ by mode (individuals)

Responses from individuals that have indicated their travel mode to work has been compared against the 2011 census data. Although the data is seven years old, it provides a good indication for comparison.

Table 2.1 compares the 2011 percentage of trips made into the CAZ by mode against the response to iQ07: "Thinking about the different journeys you make in the proposed Clean Air Zone area, how do you usually travel?". Only the response to travel to work has been assessed in this table.

Table 2.1 Travel to work 2011 trip mode vs response to CAZ consultation by mode

Mode	2011 percentage of trips into the CAZ (%)	CAZ consultation response (%)
Public transport	46%	13%
Car/ van/ taxi driver or	47%	59%

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passenger		
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The results show that there was a higher response to the consultation by people who currently drive or are a passenger in a vehicle travelling into the CAZ than those that use public transport compared against the percentage of trips collected in the 2011 census. It is worth noting that most consultations attract more responses from people who are negatively impacted by the scheme than those who aren't affected. Therefore, it is not uncommon to see more respondents who drive into the CAZ against those who take public transport.

2.5.3 Do you think you will be charged to drive your main vehicle into the CAZ? (iQ06)

50.5% of individuals stated that they would be charged to drive their main vehicle into the CAZ and a further 13.4% of people unsure whether they would be charged to enter the zone.

BCC response: The non-CAZ scenario forecast suggests that 72.3% of vehicles entering the CAZ will be compliant by 2020 without a Clean Air Zone implemented. This percentage increases to a forecast 96.6% in a scenario with the CAZ. **Table 2.2** shows the number of non-compliant vehicles entering the CAZ.

Table 2.2 CAZ scenarios: non-compliant vehicles

CAZ Option	Total vehicles entering CAZ (2020)	No. of non-compliant vehicles entering the CAZ (2020)	Percentage of vehicles entering CAZ which are non-compliant 2020
No CAZ 2020	206,900	57,400	27.7%
CAZ D 2020	190,900	6500	3.4%

2.5.4 How often do you make trips where you drive through the proposed clean air zone area but do not stop within it? (individuals)

It was stated that 34% of people who make regular trips (3 or more days per week) through the proposed Clean Air Zone area do not stop within it.

BCC response: Data collected from the Automatic Number Plate Recognition (ANPR) study correlates with this representation, showing that 32% of trips travelling through the city centre had an origin and destination outside the city centre.

2.5.5 Number of trips per week into CAZ (organisations)

Response from the consultation indicates that 27% of organisations make between 10-49 trips into the CAZ per week.

Data collected from the ANPR study shows that 6% of LGV's and 9% of HGV's make trips into the Clean Air Zone five days a week. Over 50% of the trips made by LGV's and HGV's come into the CAZ less than once a week.

2.6 What type of vehicles should be included in the Clean Air Zone restrictions?

2.6.1 Buses

Some respondents felt that buses should be excluded from the CAZ charge on the grounds that they believed the charge would be passed on to the customers, and that bus fares were already

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prohibitively expensive. However, others stated that buses were seen as the largest polluters and therefore should have the highest charge applied to them.

BCC response: Buses make up 3% of Birmingham's fleet however, they make a large contribution to air pollution on a per vehicle basis, and in order to meet legal air quality targets in the shortest possible time buses need to be included within the vehicles charged to deter older more polluting vehicles from the city centre.

The Council acknowledges the key role bus has as part of the response to tackling air quality. The Council, working with Transport for West Midlands, put in place a Statutory Quality Bus Partnership in 2012. This started to set minimum Euro emission standards for buses entering the city centre. Over time the standards have increased and the West Midlands Bus Alliance has signed up to a commitment to ensure all scheduled bus services operating inside the Clean Air Zone will meet the minimum Euro emissions standards i.e. Euro VI by January 2020.

To support this objective Transport for West Midlands have secured £3 million from the Clean Bus Technology Fund which will be matched by £2,920,200 from four bus operators – National Express West Midlands, Diamond, Claribels and First – to install retrofit solutions onto 364 vehicles. This, together with planned investment into fleets, will bring all of the fleet operating services into the CAZ area to a compliant standard.

Support and encouragement is also being given to operators of non-compliant coaches to ensure that a transition to cleaner vehicles can be met and the cost will not be passed on to the customer. There are contributions and mitigations set out in [Theme F](#) for coaches.

The Council continues to support improvements in bus services including additional priority and bus lane enforcement measures. The Council has successfully secured £2.7m of funding to deliver a number of pre-CAZ measures which will deliver new bus lanes and improved bus stop infrastructure in and around the city centre.

2.6.2 *Private cars*

It was felt that private cars should be excluded from the CAZ charge as it was believed they accounted for a smaller proportion of the air pollution produced.

BCC response: A class C CAZ (which does not include private cars) was modelled and this indicated a marginal reduction in the daily number of vehicles entering the proposed charging zone by 2020. In addition, the introduction of CAZ C for the inner ring road was forecast to reduce the number of non-compliant vehicles entering the proposed charging zone by more than 16,000 vehicles daily by 2020. Despite such forecasts the modelling estimates that there will be 19 locations of NO₂ exceedances in 2020. A CAZ C option for inner ring road achieves the NO₂ emission compliance level across all exceedance locations much later than 2022. It was also identified that even with a number of additional measures a CAZ C would not be enough to achieve compliance in the shortest possible time.

2.6.3 *Motorcycles & scooters*

There was general support for motorcycles and scooters to be made exempt from the charge as they have smaller engines and produce less pollution.

BCC response: Motorcycles and scooters make up a very small amount of overall traffic and do not significantly contribute to overall air quality issues significantly. The Clean Air Zone Framework

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requires motorcycles to be a minimum of Euro 3. Analysis of registration information suggests that almost three quarters of the motorcycle, scooter and moped fleet in Birmingham meets this standard.

It is therefore proposed that they will not be charged to enter the Clean Air Zone. However, the Council will keep this position under review.

2.6.4 Taxis

Some respondents felt that taxis should be charged due to the perception that many of them ran old and heavily polluting engines; making many trips per day. However, others felt that they should be excluded on the grounds that they provide a public service by transporting workers and visitors and any charge would be passed on to the customer.

BCC response: The Clean Air Zone requirements for taxis are in line with the 2020 licencing policy that was consulted with the taxi and private hire trade in 2017. Therefore, regardless of the Clean Air Zone requirements, taxis would need to meet euro 4 (petrol) or euro 6 (diesel) to be able to operate in Birmingham. The mitigation package available to hackney carriage drivers can be seen in [Theme F](#).

2.6.5 Electric/hybrid

The consultation documents outlined that electric/ hybrid vehicles would not be charged to enter the Clean Air Zone however respondents stated that there are not sufficient charge points in Birmingham City Centre.

BCC response: Birmingham has the highest proportion of licenced electric vehicles outside of London as of mid-2018. Fully electric or hydrogen fuel cell vehicles will not be charged for entering or moving through a Clean Air Zone. Hybrid vehicles which meet minimum euro standards will also not be charged to enter the Clean Air Zone as set out in the Clean Air Zone Framework. Drivers of electric vans registered in the BCC area can register to receive free credit on Birmingham's public charging network.

Birmingham City Council is looking into ways to improve the electric charging infrastructure in the city. There are a number of grants available for individuals and businesses to implement charging points at their home or workplaces.

2.6.6 Vans

Some felt that LGV's should be included within the charge as commercial companies/ organisations are more likely to have the means and scope to change their behaviour or their vehicles.

BCC response: Vans and LGV's account for around 9% of Birmingham's fleet however this corresponds to 18% of NOx emissions in the city. Therefore, in order to meet air legal limits of air quality in the city in the shortest possible time, LGV's are required to be included within the CAZ charges.

2.6.7 Lorries/HGV's

Many respondents felt that lorries and HGV's should be subject to the charge as they were seen as the most polluting.

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BCC response: Results from the ANPR study in 2016 show that HGV's account for 14% of NOx emissions in the city despite only making up 3% of Birmingham's fleet composition. Of this 3%, approximately 12% of the HGV fleet is compliant (as of 2016).

3 Theme C – Level of Charge

The council is considering the feedback on pricing and has commissioned a piece of work to refine and finalise charges. This is being undertaken alongside work with other Clean Air Zone cities outside of London to look at adopting consistent charging structures where possible. The modelling indicates the optimum level of charge necessary in order to trigger behaviour change. If the charge is too low then the air quality benefits will be less. The charges are set to encourage a change in behaviour and not set to generate income.

Birmingham's CAZ charges will be confirmed at a later date. Issues raised in this section included:

- [There should be no charge](#)
- [European emissions standards](#)

3.1 There should be no charge

28% of respondents, across all questions, stated that they were opposed to the CAZ charge and felt there should have been an opportunity to select this option, or that the proposed introduction of the charge should have been "put to the vote".

BCC response: The Government has required Birmingham to put in place measures to improve the air quality levels in Birmingham city centre. A Ministerial Direction was issued in December 2017. Clean Air Zones are evidenced to be the most effective way of meeting these targets. The council's detailed assessment of the air quality measures that are required has rejected any options that did not include a charging element as it would not be possible to achieve NOx compliance levels in the shortest possible time. Therefore, the consultation did not provide an option of 'No Clean Air Zone' or 'Non-Charging Clean Air Zone', as the purpose of the consultation was to gather feedback on our proposals for a Clean Air Zone, including the geography and charge; to find out how people would be affected by it and what additional encouragement the most affected users may need; and to ask for any other suggestions for things we can do together as a city to improve our air quality.

3.2 Comments on European emissions standards

Respondents felt that vehicles that fell just short of the requirements for compliance should not be charged the same amount as a Euro 3 vehicle that produced a lot more pollution rather than a blanket charge for all cars that fell outside of the required categories.

BCC response: The Euro standards set out clear standards for emissions control which are part of European legislation. Vehicles have been manufactured to these standards since the early 1990's, the system is well established, and vehicles are widely available. This means that it is an appropriate way to identify those vehicles that are built to the most up to date standards.

Further differentiation in charge level would deliver only small further reductions in emissions at the cost of greater complexity of communicating and administering the scheme. Emissions standards are a well-understood framework that can be used to administer the scheme.

The standards set for the Clean Air Zone are in line with those set in the Government's Clean Air Zone Framework.

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4 Theme D – Impacts of CAZ

This section covers comments received from the consultation on the potential impacts the CAZ would have on individuals and businesses. Issues include:

- [Financial and social impacts](#)
- [Impacts on the local economy](#)
- [Impacts on businesses](#)
- [No positive impacts on health or the environment](#)
- [Impact on tourism and investment](#)
- [No viable alternative to driving](#)

4.1 Financial and social impacts

4.1.1 *Leave my job*

Some respondents stated that it would no longer be financially viable to either travel to work or work within the Clean Air Zone, and therefore would be forced to leave their job and seek employment elsewhere outside of the Clean Air Zone.

BCC response: A total of 481 people mentioned this theme, of which this is 0.09% of the total workforce of Birmingham. Low-income workers living or working within the zone will receive a contribution towards a cleaner, more sustainable mode of transport. Key workers within the CAZ will also receive a one-year exemption from the charges. See [Theme F](#) for further details.

4.1.2 *Financial difficulties for residents and commuters, and financial inequality*

Respondents felt that the introduction of a CAZ charge would lead create many financial difficulties for city centre businesses, leading to job losses. Others worried that their already tight budgets would fail to stretch to the substantial outlay of a CAZ charge stating that they would have to give up their job and would be better off claiming benefits than working. Others felt that financial inequality would increase between those who were able to afford to pay the charge or upgrade their vehicle to a newer, compliant vehicle.

BCC response: Birmingham City Council are aware of impacts on certain user groups and have proposed a list of mitigations and exemptions for those most impacted. These mitigations are subject to further review before the Full Business Case submission later in the year to ensure that the impact of the exemptions have been accurately estimated. See [Theme F](#) for specific mitigations/exemptions for user groups.

4.1.3 *Increases in travel cost*

Respondents felt that travel costs would increase by either paying the charge or switching to public transport which was already seen as more expensive than driving.

BCC response: A number of mitigations have been proposed to encourage drivers to switch to cleaner, more sustainable modes of transport where possible. See [Theme F](#) for more details on the support for low-income people living or working within the zone.

There is significant ongoing investment in public transport with an ambitious programme of improvements planned working in partnership with the West Midlands Combined Authority including extensions of the Midland Metro, increased rail capacity serving central Birmingham, and introduction of Sprint rapid transit routes.

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The West Midlands Bus Alliance, the first of its kind in the UK, is committed to improving bus services in the region by working in partnership with bus operators, local councils and other partners to drive forward investment in our bus services. The Alliance objectives include making bus journeys better value whilst tackling congestion and making bus journeys quicker and more reliable.

4.1.4 The CAZ charge will make visiting friends and family prohibitively expensive

273 respondents commented that the Clean Air Zone would make visiting families or friends within the zone expensive and would result in a “social cost” to people.

BCC response: Mitigations and exemptions have been considered for those on low-income or living within the zone. More details of which can be seen in [Theme F](#). Improvements to public transport will enable more people to leave the car at home, and travel into the city centre by public transport where possible as over 90% of people within the West Midlands urban area is within 400m of a bus stop with a route into the city centre.

4.2 Impacts on the local economy

4.2.1 Shop and undertake activities elsewhere

Respondents who raised this theme suggested they would go elsewhere to undertake their shopping including travelling to Merry Hill and Solihull.

BCC response: The modelling undertaken shows that 27% of non-compliant vehicle trips are expected to be cancelled or undertaken elsewhere. Improved air quality in the city centre along with future proposals including HS2, redevelopment of Paradise Circus and Smithfield’s development will transform the city centre into an attractive and distinctive retail core. Birmingham’s retail strategy outlines the key focuses and ambitions for developing Birmingham into a world class destination.

Research in the UK and Germany has found that pedestrianised areas have the potential to bring about an increase in footfall for retail services of between +20% to +40%. Research from a retail street in Australia found that each square metre of space allocated to cars contributed \$6 (£3.30) per hour in expenditure, whereas each square metre of space allocated to bikes brought in five times as much (\$31 per hour (£17.10)).

4.2.2 Avoid travelling into the CAZ

Some stated that they would cease driving into the Clean Air Zone and stop visiting/socialising in Birmingham City Centre and visit locations outside of the zone.

BCC response: The modelling undertaken shows that in the high charge scenario 49% of journeys made by non-compliant cars would avoid travelling into the Clean Air Zone. **Figure 4.1** shows the

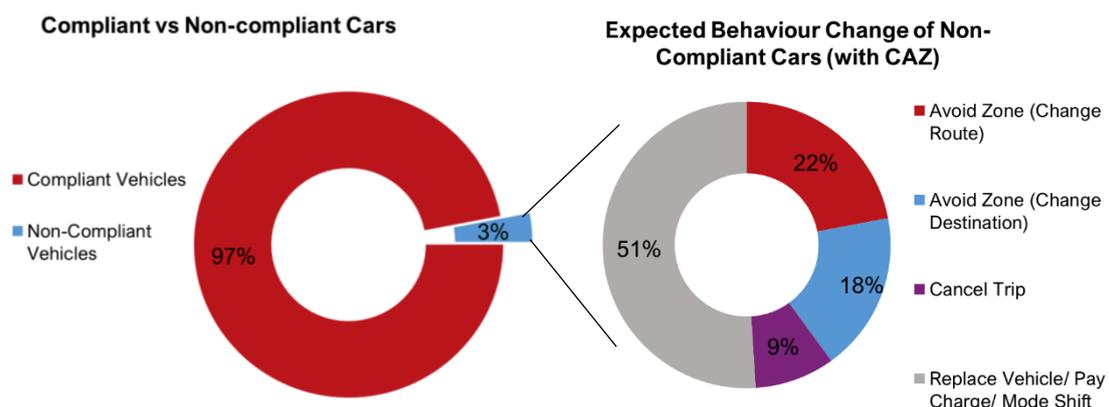


Figure 4.1 CAZ D Response of Non-Compliant Cars to the Charge

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percentage of non-compliant vehicles that would avoid the zone.

4.2.3 *Leave Birmingham*

141 people mentioned that they would leave Birmingham (0.007% of the population of Birmingham) and relocate to a city that didn't charge to drive into the centre.

BCC response: Air quality has been identified as a very current issue with other cities around the UK implementing Clean Air Zones. Although Birmingham's proposals go further than some cities due to the larger scale of air quality exceedances in the city, there are more towns and cities following suit and implementing Clean Air Zones. The positive impacts that the Clean Air Zone will bring will make Birmingham a more attractive destination to live, work and visit.

4.3 **Impact on Businesses**

4.3.1 *The CAZ will create difficulties for businesses and reduced employment*

A large number of respondents (2808) felt that businesses located within the CAZ would be negatively impacted, especially retail with customers going to out of town shopping centres e.g. Merry Hill. Respondents also felt that this charge would impact on transport and delivery costs, meaning businesses would need to pass this cost on or absorb it, both of which would make competing with businesses outside the CAZ.

BCC response: By improving the air quality and public realm, Birmingham would become a more attractive city to live and work in, attracting new business and investment and therefore creating more job opportunities. It is acknowledged that some businesses will be impacted by the scheme and therefore a package of mitigations has been developed to minimise the impact on businesses and low-income workers to ensure that the impact on businesses are minimised. See [Theme F](#) for further details.

4.3.2 *Close or relocate my business*

Some respondents said they would relocate their business outside of the zone to avoid paying the charge for deliveries and staff.

BCC response: It is acknowledged that some businesses will be impacted by the scheme and therefore a package of mitigations have been developed to minimise and offset the impact on businesses and low-income workers to ensure that the impact on businesses are minimised. See [Theme F](#) for further details.

4.3.3 *Business price rises*

Respondents felt that associated costs for businesses by introducing a Clean Air Zone e.g. deliveries would be passed on by businesses resulting in price rises for goods and services.

BCC response: A package of mitigations has been put together for LGV's and HGV's to support businesses to offset the costs to ensure these are not passed on to the customer. See [Theme F](#) for further details.

4.4 **No positive impacts on health or environment**

4.4.1 *No positive impact on pollution or health*

Some respondents felt there would be little or no positive impact on pollution levels or health with pollution moved elsewhere outside the city centre.

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BCC response: The introduction of a Clean Air Zone in Birmingham will result in a reduction in air pollution and travel behavioural changes that will bring a number of wider social, economic and environmental benefits including health benefits (improved mental health, reduced risk of premature death and prevention of chronic diseases). These benefits are not just seen within the city centre, but elsewhere as well, due to the cleaner composition of fleet in the Birmingham area.

4.4.2 Increased congestion and pollution elsewhere

Some felt it was unlikely that less vehicles would use the roads but rather that traffic would use other roads to avoid driving through the Clean Air Zone therefore creating congestion and pollution elsewhere.

BCC response: Although the Clean Air Zone would set standards for vehicles entering or travelling within the zone, it is expected to have a positive impact on areas outside of the zone as the wider fleet of vehicles travelling into the zone would improve. Some people would upgrade their vehicles in order to comply or switch their mode of transport to a more sustainable mode to avoid the charge.

It is not expected that the CAZ will lead to significant increased traffic and pollution in areas outside of the CAZ.

4.4.3 Use alternative routes

Some stated that they would use alternative routes to bypass the Clean Air Zone, in general using the ring road rather than travelling through the city.

BCC response: Some people will choose to use alternative routes to reach their destination, however 97% of cars entering the Clean Air Zone in 2020 are expected to be compliant and therefore would not be charged to enter the Clean Air Zone. **Table 4.1** shows a breakdown of the modelling results of a CAZ D Clean Air Zone and the response of the non-compliant vehicles.

Table 4.1 CAZ D CAZ response of non-compliant vehicles

Response	High Charge		
	Car	LGV	HGV
Avoid Zone (Change Route)	22%	27%	29%

4.5 Impact on tourism and investment

Some felt that the Clean Air charge would have a negative impact on tourism, for example visitors to the city's museums, which would lead to further difficulties for businesses.

BCC response: Birmingham was ranked 50th in the Mercer Quality of Living 2018 (3rd in the UK behind London and Edinburgh). This ranking is based on factors including: political, economic, environmental, and transportation.

Tackling air quality forms a key part of Birmingham's vision to be an enterprising, innovative and green City that has delivered sustainable growth which meets the needs of its population and strengthens its global competitiveness.

The CAZ may allow Birmingham to become a more attractive city for business and tourists as a result of improvements to air quality and subsequent health impacts. The impact on visitor

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numbers of this benefit cannot be quantified but international experience shows that air quality is a factor for people and businesses when deciding which locations to visit or invest in.

4.6 No viable alternatives to driving

Respondents felt that public transport was not reliable or fast enough and therefore was not a viable option, especially when multiple trips were required to drop children at school.

BCC response: 87% of people within Birmingham live within 400m of a bus stop with a service to the city centre. There is significant ongoing investment to public transport including extensions of the Midland Metro, introduction of Sprint rapid transit routes, and improvements to walking and cycling facilities across the city. These improvements including priority measures will improve journey times and reliability of services. The National Travel Survey 2017 indicates that 46% of trips between 1 and 5 miles are by car, therefore improvements to walking and cycling will encourage more people to switch from the private car to more sustainable modes of transport.

5 Theme E – Improvements to Air Quality

Respondents were asked to provide suggestions and alternatives for what else can be done to improve Birmingham's air quality. Key suggestions included:

- [Improvements to public transport, walking and cycling](#)
- [Improvements to the road system](#)
- [Introduce more green spaces](#)
- [Address roadworks issues](#)
- [Address emissions from other sources](#)
- [Electric vehicles and related infrastructure](#)
- [Incentives for businesses](#)
- [Introduce live pollution monitors](#)
- [Encourage motorbikes and scooters](#)

5.1 Improvements to public transport, cycling and walking

5.1.1 Public Transport (includes comment "develop the rail network and Midland Metro")

Many respondents felt the city's public transport network and infrastructure was currently inadequate, however some felt that the introduction of a Clean Air Zone would bring about necessary improvements.

BCC response: There is significant ongoing investment in public transport in partnership with the West Midlands Combined Authority. This includes proposals for reopening of suburban rail stations at Moseley, Kings Heath, Hazelwell, Darlaston and Willenhall, and increased suburban rail capacity: 20,000 extra rail seats (AM peak) into central Birmingham. There are also extensions of the Midland Metro to Centenary Square, Edgbaston and Digbeth, and an extension of the current Wolverhampton line between Wednesbury and Brierley Hill. The introduction of three Sprint rapid transit routes by 2022 will provide a fast and reliable service to destinations including: Sutton Coldfield, Hall Green and Longbridge.

5.1.2 Introduce travel passes

Some respondents felt that a range of travel passes, similar to London's Oyster Card system would encourage more people travelling into and within the CAZ to use public transport due to greater flexibility and ease.

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BCC response: Transport for West Midlands have developed the Swift card which is already available within the West Midlands and can be used on trains, buses and Metro. We are engaging with transport operators through the West Midlands Bus Alliance to review consultation issues with travel passes and suggestions for improvements. As part of the mitigations it is proposed that a CAZ mobility credit will be issued to qualifying users in the form of a Swift card to encourage public transport use.

5.1.3 *Cycling*

Some respondents felt that the number of people cycling into the Clean Air Zone could be increased by implementing segregated cycle lanes and secure bike storage.

BCC response: Birmingham Cycle Revolution (BCR)

Two new segregated cycle routes are currently being constructed on the A34 Perry Barr to city centre and the A38 Selly Oak to city centre providing dedicated facilities for cyclists away from vehicles. The BCR programme has also increased investment in cycle parking, including key locations within the city centre and at schools and workplaces. Birmingham City Council and Transport for West Midlands are developing Local Cycling & Walking Infrastructure Plans to support the delivery of additional high quality walking and cycling infrastructure in the city.

5.1.4 *Walking*

Some respondents felt that more pedestrianised zones would reduce traffic and enhance the walking and cycling experience for city centre users.

BCC response: Birmingham's Big City Plan sets out its vision for the city centre including creating a network of walking routes in order to deliver a more sustainable city centre that is more attractive to live in. Funding from the Transforming Cities Fund will be invested in enhancing the pedestrian environment in Birmingham city centre.

It is proposed that some of the revenue which could be generated by the Clean Air Zone will be used to deliver improvements to the public realm in and around Birmingham city centre.

5.1.5 *Park & Ride*

Some respondents felt that implementation of Park and Ride facilities across the city would encourage more journeys to be completed using public transport.

BCC response: TfWM are implementing around 800 more spaces across the West Midlands area by 2020. Park and Ride facilities can help improve access to rail and rapid transit networks, however, it is not considered that the increases in Park & Ride required to generate enough mode shift would be deliverable within the timeframes or offer appropriate the appropriate value for money.

5.1.6 *Improve the road system to aid traffic flow*

11.7% of respondents felt that certain aspects of the city's road system were inefficient and led to unnecessary stopping and starting.

BCC response: As part of the additional measures to support the CAZ implementation, the council will look at the timing of traffic signals to see whether the flow of traffic can be improved.

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5.1.7 Reroute HGV's

Some felt that by banning HGV's from congested, narrow areas of the city would improve the pollution.

BCC response: A large number of HGV trips that travel through the city centre do not have a destination within the city, therefore it is anticipated that 29% of these trips will reroute away from the Clean Air Zone in a high charging scenario. Birmingham City Council is developing a new signing and routing strategy for Birmingham which will help to reroute HGV's that do not have a destination within the CAZ away from the city centre.

5.1.8 Address 'school run' issue

Respondents felt that some school trips, children were driven unnecessarily small distances that they might otherwise be able to walk, whilst others noted the prevalence of idling engines while parents were waiting for their children.

BCC response: Birmingham City Council will support parents and schools seeking to reduce the expose of pollution to their children. The Council is engaging with schools and promoting Modeshift STARS, a national schools award scheme to recognise schools that have demonstrated excellence in supporting cycling, walking and other forms of sustainable travel. The Council is also looking at ways to reduce parking pressures around schools.

5.1.9 Address the issue of 'engine idling'

A number of respondents raised the issue of engine idling particularly amongst taxis and parents outside schools.

BCC response: As part of the City's Clean Air Strategy, engine idling is something that we would recommend against. The adoption of anti-idling strategies may be used in certain circumstances.

5.1.10 Reduce bus lanes

Some respondents felt that the number of bus lanes within the city actually added to congestion and consequently pollution by reducing the amount of available road to travel on.

BCC response: There is a finite amount of space available to move an increasing number of people and goods in and around Birmingham. We cannot build more roads, so we have a responsibility to use the limited space as efficiently as possible. Moving everyone in cars is a relatively inefficient use of that space compared with public transport, but we appreciate that there are a large number of people who prefer to use cars because they feel the public transport alternatives are not currently as good as they could be.

Bus priority (including bus lanes) means that bus journeys are faster and more reliable, meaning that it is more feasible for people to shift out of their car and onto more efficient and sustainable modes so that the increase in trips made by an increasing population can be accommodated.

5.2 Introduce more green spaces

Respondents proposed more trees and greenery could be introduced to improve the air quality as well as to improve the feel and ambience of the city, making walking and cycling more pleasant.

BCC response: Green spaces alone would not reduce the air pollution enough to meet the air quality targets. However, there is evidence to suggest that green spaces bring health and social benefits. This is something that Birmingham is considering as part of its wider Clean Air Strategy.

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5.3 Address roadworks issues

Respondents felt that more could be done to ensure roadworks were carried out and completed in an efficient manner. Road closures for no apparent reason, with no work undertaken was mentioned.

BCC response: The city is going through an unprecedented level of redevelopment with various Government funded schemes (e.g. Metro and HS2) and private developments (e.g. Paradise and Arena Central) happening within the same time span. All of these are being undertaken to improve public transport, increase retail etc within the city centre and provide more employment opportunities. These schemes often take considerable time to construct and will inevitably overlap in timing.

Sometimes cones are left out despite work not taking place at that time - as removal can cause more disruption and delays. Also, in some cases this is a Health and Safety risk as there may be excavations, temporary surfaces or surfaces that take time to set, which are not suitable for vehicles to drive over.

5.4 Address emissions from other sources

5.4.1 Buildings and industry emissions

Some respondents felt that more could be done to address issues of pollution being caused by large buildings, factories and industries as well as the construction of new buildings within the city centre.

BCC response: Major industries that are likely to generate emissions are regulated under the Environmental Permitting Regulations which requires them to obtain a permit from the Local Authority or the Environment Agency in which controls will be stipulated including emissions limits for primary pollutants including NO_x and PM₁₀. Businesses that do not fall under the environmental permitting scheme typically have much reduced emissions and these are subject to reactive regulation on a by-compliant basis with Council officers investigating for breaches of nuisance or Clean Air Act provisions.

5.4.2 Trains

Respondents believed that diesel trains in the city's railway stations were responsible for a large amount of pollution, with engines left idle.

BCC response: This is currently a complicated area as the legislation around air quality in the Environment Act does not apply at the station - effectively it is an internal issue and as such Health & Safety legislation is more appropriate.

At New Street the two ends of the platforms are akin to 'point sources' and will add to the pollutant burden in the immediate locality, in the open air. However, Defra have not flagged this as an area of exceedance and insofar as Local Air Quality Monitoring is concerned the Council does not consider that there is exposure (as defined). Network Rail are working with the rail franchises to reduce engine idling at the city's railway stations and increase the effectiveness of the ventilation fans at platform levels.

The Council continues to press Government on improvements to rolling stock as part of the rail franchising process. Further the Council continues to call for further electrification of the rail network, particularly the cross country rail network.

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5.4.3 *Burning rubbish and bonfires*

Some felt that a large amount of air pollution was caused by burning rubbish and this should be addressed.

BCC response: The burning of rubbish and bonfires, whether commercially or domestically undertaken is not supported by the Council. The Council will use its powers under nuisance and Clean Air Act provisions, as well as duty of care where businesses are concerned to ensure that such burning does not take place.

5.5 **Electric vehicles and related infrastructure**

5.5.1 *More electric charging points*

Respondents felt that there were few electric charging points, and many more would need to be introduced to successfully encourage drivers to consider purchasing an electric vehicle.

BCC response: Birmingham City Council is looking into ways to improve the electric charging infrastructure in the city. There are a number of grants available for individuals and businesses to implement charging points at their home or workplaces.

The Council is in the process of appointing an electric vehicle charging network partner to deliver a city level infrastructure to support the uptake of electric vehicles by individuals and businesses. This will see rapid charging hubs, designated taxi charging stations and localised charging solutions e.g. in areas with limited off-street parking.

5.5.2 *Create a fleet of electric shuttle buses*

Some respondents felt that Birmingham could operate free electric shuttle buses within the city centre offering people an incentive to leave their car at home.

BCC response: Due to the complexity of the road network inside the ring road and the city centre being relatively small, an electric shuttle bus would not provide quicker journeys within the city centre compared to those made on foot or bicycle.

5.5.3 *Encourage electric taxis*

Some felt that taxis should be given assistance to encourage them to uptake the purchase of electric vehicles to improve the air quality in the city centre.

BCC response: Birmingham licenced taxi drivers with non-compliant hackney carriages will be offered a payment grant towards the purchase or lease of a ULEV. The council is also looking to purchase a fleet of ULEV taxis to lease. Further details of the grants and support available can be found in the [discounts and exemptions](#) chapter below. Birmingham City Council has received c£2.92m from the Office for Low Emission Vehicles (OLEV) to install 197 electric charging points across the city for taxis and private hires.

5.6 **Incentives for businesses**

Some respondents felt that businesses could be encouraged to introduce more environmentally friendly and less polluting practices including how they operate and encouraging staff and customers to utilise sustainable transport.

BCC response: There are some incentives in the form of grants available for the uptake of Ultra Low Emission Vehicles. The grant is available for 20% of the purchase price of an eligible vehicle, up to a maximum of £8,000. Birmingham City Council have, on top of this, asked for government funding to

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offer 'free miles' to cover the equivalent of one years' worth of mileage to encourage the uptake of ULEV vehicles.

5.7 Introduce live pollution monitors

It was felt that air pollution was "an invisible issue" and by installing live pollution monitors making people aware of the actual pollution levels would encourage people to take action.

BCC response: Defra publish an interactive monitoring map showing current levels of pollution at monitoring sites, three of which are in Birmingham. <https://uk-air.defra.gov.uk/interactive-map>
Defra also provide a five day air pollution forecast with related health advice, follow @DefraUKAir

In Birmingham, we have more monitoring stations than those used by Defra; data from these form our annual status report. The monitoring stations only measure the pollution at this fixed points. Using what we know about sources of pollutions, such as roads, airports and industrial sites, we are able to create a computer model (called Airviro) which predicts levels of pollutants across the city.

5.8 Encourage motorbikes and scooters

Respondents felt that more should be done to encourage motorbikes and scooters as they were seen as low-level polluters.

BCC response: The council will continue to make it safe for people who wish to use motorbikes and scooters.

Theme F – Discounts & Exemptions

Many respondents believed support should be offered to some user groups who would be most impacted. Issues and suggestions here include:

- [Visitors to the Birmingham Children's Hospital](#)
- [People with disabilities and their carers](#)
- [Residents within the CAZ](#)
- [People on low-income](#)
- [Small and local businesses](#)
- [Commuters and workers](#)
- [Taxi drivers](#)
- [People travelling to within the CAZ for purposes of worship](#)
- [Elderly](#)
- [Those regularly passing through the CAZ but not stopping](#)
- [Hospital and emergency workers](#)

Note: The mitigations proposed are subject to further review before the Full Business Case submission later in the year to ensure that the impact of the exemptions have been accurately estimated. They are also dependant on receiving funding from the Government to finance the mitigations. Exemptions will continue to be kept under review to ensure they are appropriate and do not affect the Council's ability to achieve compliance.

5.9 Visitors to the Birmingham Children's Hospital

Respondents felt that provision and support should be made for those who had to undertake trips to the children's hospital to visit sick children.

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BCC response: Birmingham Children's Hospital is a regional specialist so there is little opportunity for visitors to avoid the CAZ. It is vital that individuals are not discouraged from attending health care services as a result of financial pressure. A one-year exemption from the date of implementation has been granted for all visitors to Birmingham Children's Hospital.

5.10 Exemptions for people with disabilities and their carers

Respondents felt that it was unrealistic to expect those with physical disabilities to stop using their cars and travel by public transport.

BCC response: Vehicles within the disabled passenger vehicle tax class will be given a one-year exemption from the date of implementation. People with disabilities living within the zone, would qualify for a two-year exemption from implementation and an opportunity to trade in their non-compliant vehicle for £2,000 towards the purchase of a compliant vehicle at the end of the exemption period. Blue badge holders have not been made exempt, because the volume of blue badge holders within Birmingham makes it unfeasible.

5.11 Residents within the CAZ

There was support for those living within the zone to receive discounts or be made exempt with some stating they would be forced to seek housing elsewhere, outside the zone.

BCC response: A two-year exemption has been given to residents living within the zone from the date of implementation. Mobility credit of £1000 will be offered to lower income non-compliant car owners working within the Clean Air Zone. A scrappage scheme has also been proposed for those travelling into the zone to receive £2,000 cash payment towards the purchase of a compliant vehicle or £2,000 mobility credit.

5.12 People on low-income

There was support and opposition for support to be given to people on low income. Respondents felt that those on low income, particularly low-income workers should receive support in the shape of exemptions to paying the CAZ charge and assistance in purchasing a newer, compliant vehicle.

BCC response: Those on low income living or working within the zone will be offered a one-year exemption from the charges from the date of implementation. Mobility credit of £1000 will be offered to low income non-compliant car owners living within the Clean Air Zone. A scrappage scheme has also been proposed for those living within the zone to receive £2,000 cash payment towards the purchase of a compliant vehicle or £2,000 mobility credit to be supplied on a SWIFT card with no expiration for use at the end of the exemption period.

5.13 Small and local businesses

Many respondents believed small businesses, particularly those receiving or making a lot of deliveries such as couriers, should receive an exemption.

BCC response: HGV's, vans and coaches registered to addresses inside the Clean Air Zone will be exempt from the CAZ charge for one year from implementation (maximum two vehicles per company). HGV's and vans registered in the Birmingham City Council area, travelling into the CAZ, with an existing finance agreement beyond 2020 will be exempt from the CAZ charge for one year from implementation.

A compliance fund is available to businesses with HGV's, LGV's and Coaches to apply for a grant to contribute towards installing a retrofit solution or the upfront or lease costs of a compliant vehicle.

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Ultra-low emission van drivers will also receive £750 credit to use on BCC's public charging network.

5.14 Commuters and workers

Some respondents felt that commuters and workers should receive discounts/ exemptions in order to make necessary changes to their work travel plans given the speed with which the Clean Air Zone is proposed to come into effect.

BCC response: It is forecast that 97% of cars entering the Clean Air Zone will be compliant in 2020. Low-income workers working within the zone will receive a one-year exemption from the charge. Key workers who provide essential services to society so should not have costs imposed that may incentivise them to change jobs. Therefore, a one-year exemption has been given to those who constitute the government's definition of a key worker.

5.15 Taxi drivers

Some respondents felt that the impact of the CAZ charge may be especially felt by taxi drivers which could cause some to seek work elsewhere.

BCC response: Birmingham Licenced taxi drivers with non-compliant Hackney carriages will be offered support payments towards the purchase or lease of a ULEV vehicle. This is forecast as £5,000 over 4 years. Alternatively, the target group can choose to receive a grant with which to install an accredited retrofit technology making their vehicle compliant. Birmingham City Council has also asked the government for funding to purchase or lease 50 ULEV taxis which will then be leased out to the most vulnerable hackney carriage drivers.

£2.92 million has been secured from the Office for Low Emission Vehicles to support implementation of a city level electric vehicle chargepoint network to include 197 charging points for taxis which will help support the change to ultra-low emission vehicles.

For private hire vehicles, the council proposes a £2,000 grant to support PHV compliance to either euro 6 diesel, euro 4 petrol or other cleaner low emission vehicle.

5.16 People travelling to within the CAZ for purposes of worship

76% of individuals and 74% of organisations agreed that people attending a place of worship should be given support, however those opposed to the support argued that worship was a choice and not especially different from other leisure activities.

BCC response: It was decided that mitigations for people attending a place of worship would not be included. This is due to the difficulties in implementing a scheme targeted at worshipers and a perceived unfairness on other groups. Instead there is a focus on a wider group of residents on low income. Travel planning could help to improve awareness of transport options to get to these places of worship.

5.17 Elderly

Respondents felt that the elderly who depend on their cars and may not be able to use public transport should receive an exemption/discounts.

BCC response: Elderly people who live within the zone will receive a one-year exemption from the CAZ charge.

Community and school transport provided by transport providers classified as a Section 19 operator will receive a one-year exemption from the CAZ charges from the date of implementation.

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Accessibility will also be covered in mitigation measures targeted at the taxi community to ensure wheelchair accessible vehicles remain available to elderly and disabled residents.

5.18 Those regularly passing through the CAZ, but not stopping

Respondents felt that charging drivers who didn't stop within the CAZ but merely part of their route to somewhere outside of the city should receive discounts/exemption which would help lessen congestion and pollution on the Ring Road.

BCC response: The ANPR study undertaken in 2016 indicates that 32% of trips through Birmingham are through trips that do not start or finish within the city centre. The traffic modelling shows that there will be slight increases in traffic on the Ring Road overall, however many people will upgrade their vehicle to be compliant, switch to public transport or re-route via an alternative route and avoid the Ring Road.

5.19 Hospital and emergency workers

Respondents felt that those working in the emergency services as well as at the children's hospital should either be exempt from the charges or receive some other form of support.

BCC response: Key workers who fall within the government's definition of a 'key worker' including hospital and emergency workers provide essential services to society have been identified as those who should not have costs imposed that may incentivise them to change jobs and therefore have been included within the mitigations and offered a one-year exemption.

6 Theme G – Suggestions of Support

Respondents were asked what type of support they would require to minimise the impact of the CAZ on themselves, their family and their business. Suggestions included:

- [Introduction of a vehicle trade-in scheme](#)
- [Phased introduction/ more time before charging begins](#)
- [Subsidised bus travel and/or bus passes](#)
- [Monthly/ annual passes](#)
- [Help finding a job or home elsewhere](#)
- [Discounts for entering the CAZ during off-peak hours](#)
- [Financial and logistical help to relocate](#)
- [Reduced business rates and/ or rent](#)

6.1 Introduction of a vehicle trade-in scheme

Respondents felt that the council could support its citizens by creating a vehicle trade in scheme for those who wished to upgrade their non-compliant vehicles to low emission vehicles.

BCC response: A vehicle trade in scheme for residents within the zone has been proposed for residents living within the Clean Air Zone. Further details are outlined in [Theme F](#) above.

6.2 Phased introduction/ more time before charging begins

Respondents felt that a phased introduction of the Clean Air Zone would provide drivers and businesses more time to make adjustments to their current plans as 18 months is too little time.

BCC response: It is not feasible to postpone the Clean Air Zone as the requirement of Birmingham City Council by Government is to deliver compliance in the shortest possible time. The council has

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made some exemptions for certain users for one year from implementation, details of which can be found in [Theme F](#).

6.3 Subsidised bus travel and/or bus passes

It was felt that public transport was already too expensive and that these charges would increase with the cost of entering the CAZ and therefore public transport should be subsidised or passes should be made available to qualifying individuals.

BCC response: Birmingham City Council is working with its partners including Transport for West Midlands and National Express to understand ways of encouraging more people to use public transport. Low income residents or workers with non-compliant cars living or working within the CAZ will be offered £1,000 mobility credit in the form of a swift card to encourage the use of public transport.

6.4 Monthly/ Annual passes

Some respondents suggested that there should be an option to pay for the CAZ on a monthly or annual basis with a discount for bulk and upfront payment.

BCC response: Options around how the CAZ payment systems will operate are still under development, however paying for the charges for entering the CAZ at the end of the month by providing bank details could be considered. Discounts for regular use are unlikely because the aim of the Clean Air Zone is to discourage the use of polluting vehicles and encourage the uptake of public transport.

6.5 Help finding a job or home elsewhere

Some individuals and organisations felt that they would not be able to afford to keep their home/ job within the CAZ and therefore would need help relocating their business or job outside of the ring road.

BCC response: Support has been provided for residents living within the CAZ including a two-year exemption from the charge. Those on low-income working within the zone will receive £1,000 mobility credit in the form of a swift card that can be used on public transport.

6.6 Discounts for entering the CAZ during off-peak hours

Some respondents felt that the charge for vehicles entering the CAZ late at night, or very early morning should either be reduced or free.

BCC response: The air pollution targets are based on an Annual Average Daily Mean (AADM) and therefore by reducing/ removing the charge during off-peak hours will not deliver the same air quality benefits as having a 24-hour charge.

6.7 Financial and logistical help to relocate

Some businesses felt that they would need assistance in the shape of relocating their business outside of the CAZ.

BCC response: We acknowledge that some businesses may be adversely impacted by the scheme and therefore the mitigations outlined in [Theme F](#) above outline support for businesses inside and outside the CAZ.

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6.8 Reduced business rates and/or rent

Some organisations felt that a reduction in rent and/or business rates would help offset the cost of the CAZ and the projected loss of earnings due to an expected reduction in number of customers and clients.

BCC response: The mitigations outlined above are projected to support businesses and of reduce/remove the impact the scheme may have on them.

In the Autumn Budget, the Chancellor of the Exchequer outlined a business rate discount for small businesses which have a rateable value of £51,000 or less.