

GREATER MANCHESTER AIR QUALITY ADMINISTRATION COMMITTEE

DATE: Thursday, 20th January, 2022

TIME: 10.00 am – 11.00 am

VENUE: Council Chamber, Manchester Town Hall Extension, M2 5DB

SUPPLEMENTARY AGENDA

5. GM CLEAN AIR PLAN - CLEAN AIR ZONE DISCOUNT & 1 - 12 EXEMPTIONS APPLICATIONS

Report of Simon Warburton, Transport Strategy Director, TfGM

7. GM CLEAN AIR PLAN - FINANCIAL SUPPORT SCHEME 13-52 JANUARY 2022 UPDATE

Report of Councillor Andrew Western, Portfolio Lead for Clean Air

BOLTON	MANCHESTER	ROCHDALE	STOCKPORT	TRAFFORD
BURY	OLDHAM	SALFORD	TAMESIDE	WIGAN

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Agenda Item 5

GM Air Quality Administration Committee

Date: 20 January 2022

Subject: GM Clean Air Plan – Clean Air Zone Discount & Exemptions Applications

Report of: Simon Warburton, Transport Strategy Director, TfGM

Purpose of Report

In the agreed GM Clean Air Plan Policy, the owners or registered keepers of certain vehicle types will need to apply for the agreed discount or exemptions, as there is no national database of these vehicles. This report sets out the information required to support an application for the agreed discount or exemptions and to seek agreement to open the application process on 31 January 2022.

Recommendations:

The Air Quality Administration Committee is requested to:

- Agree the information owners or registered keepers will need to provide to support an application for the Clean Air Plan discount or exemptions where there is no national database of these vehicles.
- 2. Agree to open the Clean Air Zone local exemptions and discounts application process on 31 January 2022.

Contact Officers

Eamonn Boylan – Chief Executive, GMCA and TfGM

eamonn.boylan@greatermanchester-ca.gov.uk

Simon Warburton – Transport Strategy Director, TfGM simon.warburton@tfgm.com

Liz Treacy - GMCA Solicitor and Monitoring Officer

liz.treacy@greatermanchester-ca.gov.uk

Megan Black - Interim Head of Logistics & Environment

BOLTON	MANCHESTER	ROCHDALE	STOCKPORT	TRAFFORD
BURY	OLDHAM	SALFORD	TAMESIDE	WIGAN

Equalities Impact, Carbon and Sustainability Assessment:

The GM CAP is a place-based solution to tackle roadside NO₂ which will have a positive impact on carbon.

Risk Management

Initial risk register set out in Clean Air Plan OBC (March 2019).

Legal Considerations

The legal consideration has been set out in the GMCA report of the GM Clean Air Plan, published on 21 June 2021¹

Financial Consequences – Revenue

Initial Financial Case set out in Clean Air Plan OBC (March 2019), with all development and delivery costs to be covered by central Government.

Financial Consequences – Capital

Initial Financial Case set out in Clean Air Plan OBC (March 2019), with all development and delivery costs to be covered by central Government.

Number of attachments to the report: 0 (zero)

Comments/recommendations from Overview & Scrutiny Committee

Not applicable.

Background Papers

- 18 November 2021, report to AQAC: GM Clean Air Plan GM Clean Air Funds assessment mechanism
- 18 November 2021, report to CACC: GM Clean Air Plan GM Clean Air Plan Policy updates
- 13 October 2021, report to AQAC: GM Clean Air Plan Operational Agreement for the Central Clean Air Service

¹ <u>https://democracy.greatermanchester-</u>

ca.gov.uk/documents/s15281/GMCA%20210621%20Report%20Clean%20Air%20Plan%20-%20FINAL%20FINAL.pdf

- 13 October 2021, report to CACC: GM Clean Air Plan Showmen's Vehicle Exemption
- 13 October 2021, report to CACC: GM Clean Air Plan Clean Air Zone daily charge refund policy
- 13 October 2021, report to CACC: GM Clean Air Plan A628/A57, Tameside Trunk Road Charging Scheme
- 21 September 2021, report to AQAC: GM Clean Air Plan Clean Air Zone: Camera and Sign Installation
- 21 September 2021, report to AQAC: GM Clean Air Plan Bus Replacement Funds
- 25 June 2021, report to GMCA: GM Clean Air Final Plan
- 31 January 2021, report to GMCA: GM Clean Air Plan: Consultation
- 31 July 2020, report to GMCA: Clean Air Plan Update
- 29 May 2020, report to GMCA: Clean Air Plan Update
- 31 January 2020, report to GMCA: Clean Air Plan Update
- 26 Jul 2019, report to GMCA: Clean Air Plan Update
- 1 March 2019, report to GMCA: Greater Manchester's Clean Air Plan Tackling Nitrogen Dioxide Exceedances at the Roadside - Outline Business Case
- 11 January 2019, report to GMCA/AGMA: Clean Air Update
- 14 December 2018, report to GMCA: Clean Air Update
- 30 November 2018, report to GMCA: Clean Air Plan Update
- 15 November 2018, report to HPEOS Committee: Clean Air Update
- 26 October 2018, report to GMCA: GM Clean Air Plan Update on Local Air Quality Monitoring
- 16 August 2018, report to HPEOS Committee: GM Clean Air Plan Update
- UK plan for tackling roadside nitrogen dioxide concentrations, Defra and DfT, July 2017

Tracking/ Process

Does this report relate to a major strategic decision, as set out in the GMCA Constitution

No

Exemption from call in

Are there any aspects in this report which means it should be considered to be exempt from call in by the relevant Scrutiny Committee on the grounds of urgency? No

GM Transport Committee Not applicable

Overview and Scrutiny Committee Not applicable

1. Background

- 1.1. The Government has instructed many local authorities across the UK to take quick action to reduce harmful Nitrogen Dioxide (NO₂) levels following the Secretary of State issuing a direction under the Environment Act 1995. In Greater Manchester, the 10 local authorities, the Greater Manchester Combined Authority (GMCA) and Transport for Greater Manchester (TfGM) are working together to develop a Clean Air Plan to tackle NO₂ Exceedances at the Roadside, herein known as Greater Manchester Clean Air Plan (GM CAP).
- 1.2. The core goal of the GM CAP is to address the legal requirement to achieve compliance with the legal Limit Value (40 μg/m3) for NO₂ identified through the target determination process in Greater Manchester in the "shortest possible time" in line with legislation and Government guidance.
- 1.3. The Secretary of State issued a direction to the 10 local authorities in Greater Manchester in March 2020 that requires them to take steps to implement the local plan for NO₂ compliance, so that compliance with the legal limit for nitrogen dioxide is achieved in the shortest possible time, and by 2024 at the latest, and so that exposure to levels above the legal limit for nitrogen dioxide are reduced as quickly as possible.
- 1.4. An eight-week statutory consultation on the GM CAP proposals took place in Autumn 2020. A report that set out the Greater Manchester Final Clean Air Plan and policy following a review of all the information gathered through the GM CAP consultation and wider data, evidence and modelling work has been agreed by the ten GM Local Authorities.
- 1.5. This includes the GM Clean Air Plan Policy², that outlines the boundary, discounts, exemptions, daily charges of the Clean Air Zone as well as the financial support packages offered towards upgrading to a compliant vehicle, including the eligibility criteria to be applied.
- 1.6. The anticipated implementation date of the charging GM CAZ is Monday 30 May 2022³.

2. Local exemptions and discounts application process

2.1. The policy outlines that where GM is using an existing database to identify exempted vehicles, it is the responsibility of the owner/registered keeper of a vehicle to ensure their information held with the relevant agencies, e.g. DVLA, is up to date and accurate and where an application is required it is the responsibility of the owner/registered keeper of a vehicle to apply for the discount/exemption.

²https://assets.ctfassets.net/tlpgbvy1k6h2/2VNncClzejAvGh3CrVn0oo/827368f3971b13b9d79525c7c7a6009 4/GM_Clean_Air_Plan_Policy_following_Consultation.pdf

³ subject to joint GM and JAQU agreement on overall 'readiness', including that the Central Charging Portal and national Vehicle Checker is GM ready.

- 2.2. The policy outlines that there are several instances where there is no national database of these vehicles and the owners or registered keepers of these vehicle types will need to apply for the agreed discount or exemption.
- 2.3. The committee is recommended to open the Clean Air Zone local exemptions and discounts application process on 31 January 2022. This will enable those owner/registered keepers of vehicles eligible for discounts or exemptions to put in place their discount/exemption before the launch of the Clean Air Zone.
- 2.4. The application process will, in addition to confirming exemption / discounts before launch, allow GM to capture information about delivery dates to further evidence the supply chain issues discussed in the Financial Support Scheme report which is also on the Committee's agenda.

3. Information required to support an application

3.1. The tables in this section set out the exemptions where there is no national database of these vehicles and the information the owners or registered keepers of these vehicle types will need to supply on application for the agreed discount/exemption.

Permanent local exemptions	Description	Information on Application
Specialist Heavy Goods Vehicles	 Certain types of heavily specialised HGVs, such as certain vehicles used in construction or vehicle recovery. The following are eligible to apply for exemption: Vehicles in the DVLA Special Types Tax Class⁴ and specified in an Order under Section 44 of the Road Traffic Act 1988; Vehicles in the DVLA Special Vehicles Tax Class and meeting the definition of a "special vehicle" under Part IV of Schedule 1 of the Vehicle Excise and Registration Act 1994 (VERA); 	 An image or copy of the V5C document which shows the Vehicle Registration Mark (VRM) and the vehicle classification Declaration that the vehicle is in one of the stated tax classes (and as shown on the vehicle's V5C) Declaration that the vehicle meets the legal definition and criteria for the relevant vehicle as set out in the GM CAP Policy Declaration that the non-compliant vehicle is registered to the applicant, or an authorised employee, director or trustee of the applicant/organisation (as evidenced on the V5C)

⁴ Information on tax classes for vehicles is available at: <u>https://www.gov.uk/government/publications/v3551-notes-about-tax-classes</u>

Permanent local exemptions	Description	Information on Application		
	Vehicles in the DVLA Recovery Vehicle Tax Class and meeting the definitions and criteria in Part V of Schedule 1 of the VERA;			
	• Vehicles in the DVLA Special Concessionary Tax Class and meeting the definitions and criteria in paragraphs 20B, 20C, 20D, 20E, 20F, 20H or 20J of Schedule 2 of the VERA.			
	• Vehicles in the DVLA Limited Use Tax Class and meeting the definition and criteria in paragraph 20A of Schedule 2 of the VERA.			
		 An image or copy of the V5C document which shows the VRM and the vehicle classification 		
	Those operating under a permit under section 19 or section 22 of the Transport Act (1985), issued by a body designated by the Secretary of State.	 An image or copy of the Section 19 or Section 22 permit in the name of the Applicant 		
		 Declaration that the minibus is operated under and used for activities pursuant to a Section 19 or Section 22 permit 		
Community minibuses		 Declaration that the minibus is not used as a licenced taxi or private hire vehicle (PHV) 		
		 Declaration that the vehicle is not used on a registered bus service 		
		 Declaration that the non- compliant vehicle is registered to the applicant, or an authorised employee, director or trustee of the applicant/organisation (as evidenced on the V5C) 		
Showmen's vehicles	Fairground/funfair vehicles which are in the tax classification of Showman's HGV or Showman's Haulage under the DVLA Special	 An image or copy of the V5C document which shows the VRM and the vehicle classification 		

Permanent local exemptions	Description	Information on Application
	Vehicles Tax Class and meet the definition of a 'showman's vehicle' or a 'showman's goods vehicle' within the meaning of section 62 of the VERA.	 Declaration that the vehicle is in one of the stated tax classes (and as shown on the vehicle's V5C) Declaration the vehicle meets the definition of a 'showman's yehicle' or a 'showman's goods vehicle' within the meaning of section 62 of the VERA^{Error!} Bookmark not defined. Declaration that the non-compliant vehicle is registered to the applicant, or an authorised employee, director or trustee of the applicant/organisation (as evidenced on the V5C)
LGVs and minibuses adapted for a disabled user	LGVs and Minibuses specifically adapted for use by a disabled user and not used for hire or reward. These vehicles will have a substantial and permanent adaptation to the vehicle, specific to suit a disabled wheelchair user's particular needs to enable them to travel in the vehicle, or enter and drive it ⁵ .	 An image or copy of the V5C document which shows the VRM and the vehicle classification Images of the vehicle showing the substantial and permanent adaptations to the vehicle aligning to GM CAP Policy requirements

⁵ The definition of substantial and permanent adaptation draws on guidance from HMRC that: The adaptation to the vehicle must be both necessary and specific to suit the disabled wheelchair user's particular needs to enable them to travel in the vehicle, or enter and drive it. The adaptation should alter the vehicle in a meaningful way, enabling the wheelchair user to use the vehicle which they could not use before it was adapted. For a vehicle to be considered as substantially and permanently adapted it is expected that significant change to the vehicle has been made with the adaptations being bolted or welded to the body or chassis of the vehicle. Adaptations that are wired into the electrics of the vehicle could also qualify as substantially and permanently adapted. For adaptations to be considered permanent it's expected that they should be fitted to the vehicle for the shorter of either a minimum of 3 years or the lifetime of the vehicle. If the adaptation is removed before this time, then the adaptation may not be considered to be permanent and therefore the vehicle should not have been eligible for exemption. A disabled person who usually uses a wheelchair needs to be able to take it with them in the vehicle. Vehicles often need to be transferred into the

Permanent local exemptions	Description	Information on Application
		 Description of the substantial and permanent adaptations to the vehicle
		 Declaration that the vehicle is LGV or minibus with a substantial and permanent adaptation to the vehicle, specific to suit a disabled wheelchair user's particular needs to enable them to travel in the vehicle, or enter and drive it, as defined by the GM CAP Policy
		 Declaration that the vehicle is not covered by the Disabled Tax Class or Disabled Passenger Vehicle Tax Class (and as evidenced on the V5C)
		 Declaration that the vehicle is not operating under a permit under section 19 or section 22 of the Transport Act (1985), issued by a body designated by the Secretary of State
		 Declaration that the vehicle is not used as a licenced taxi or private hire vehicle (PHV)
		 Declaration that the vehicle is not used on a registered bus service
		 Declaration that the vehicle is not used for hire or reward

vehicle, using a ramp and a winch or a hoist, and for it to be held safely and securely in place throughout the journey. Where a wheelchair can be folded and stowed in the boot of a vehicle, the vehicle does not need to be substantially and permanently adapted to carry it. Whilst some minor adaptations may be required, it's not sufficient to meet the 'substantially and permanently adapted' qualifying condition and the vehicle will not qualify for exemption. The following are not considered as substantial and permanent adaptations because they are widely available accessories or upgrade options the: fitting of a roof rack or standard roof box; attachment of a trailer to the back of a vehicle; fitting of automatic transmission; fitting of parking or reversing sensors. This list is not exhaustive. Further information available at: https://www.gov.uk/guidance/vat-relief-on-adapted-motor-vehicles-for-disabled-people-and-charities-notice-1002#sec3

Permanent local exemptions	Description	Information on Application
		 Declaration that the non- compliant vehicle is registered to the applicant (as evidenced on the V5C)
		 An image or copy of the V5C document which shows the VRM and the vehicle classification.
	Heritage buses which are over 20 years old and which are not used for hire or reward.	An image or copy of the vehicle insurance document which shows the absence of business insurance
Horitogo		 Declaration that the vehicle is in the PLG Tax Class (as evidenced by the V5C)
Heritage buses not used for hire or reward		 Declaration that the vehicle is over 20 years old at the date of Application (as evidenced by the V5C)
		 Declaration that they are not used for hire or reward (at any point)
		• Declaration that the non- compliant vehicle is registered to the applicant, or an authorised employee, director or trustee of the applicant/organisation (as evidenced on the V5C)

Temporary local exemptions	Description	Information on Application
Coaches and buses not used on a registered bus service.	Coaches and buses not used on a registered bus service are eligible for a temporary exemption until 31 st May 2023. After 31 st May 2023, non- compliant vehicles will be charged.	 An image or copy of the V5C document which shows the VRM and the vehicle classification Declaration that the vehicle is not used on a registered bus service Declaration that the non-compliant vehicle is registered to the applicant, or an authorised employee, director or trustee of the applicant/organisation (as evidenced on the V5C)
Outstanding finance or lease on non- compliant vehicles	Non-compliant vehicles subject to finance or lease agreements entered into before 3 rd December 2020 which will remain outstanding at the time at which the GM CAZ becomes operational, are eligible for a temporary exemption until the agreement ends or until 31 st May 2023, whichever is sooner. After 31 st May 2023, non- compliant vehicles will be charged.	 An image or copy of the V5C document which shows the VRM and the vehicle classification An image or copy of the proof of outstanding finance or lease on non-compliant vehicle (for which the exemption application is for) showing the agreement end date Declaration that the non-compliant vehicle is registered to the applicant, or an authorised employee, director or trustee of the applicant/organisation (as evidenced on the V5C or finance/lease agreement)
Limited supply (awaiting delivery of a compliant vehicle)	Owners or registered keepers of non-compliant vehicles that can demonstrate they have placed an order for a compliant replacement vehicle or retrofit solution, are eligible for a temporary exemption until such a time as they are in receipt of the compliant replacement vehicle or retrofit solution, or for 12 weeks,	 An image or copy of the V5C document for the non-compliant vehicle which shows the VRM and the vehicle classification

Temporary		
local	Description	Information on Application
exemptions		
	or until 31 st May 2023, whichever	An image or copy of an invoice
	is sooner. After 31 st May 2023, non- compliant vehicles will be charged.	showing a purchase from a supplier of a replacement compliant vehicle or CVRAS accredited retrofit solution by the applicant. This will be crossed checked with a funds report to confirm an application has been made. The invoice should show:
		The name and address of the supplier providing the replacement compliant vehicle or CVRAS accredited retrofit solution;
		 The name and address of the applicant as it appears in the Application for exemption;
		 The delivery date of the replacement compliant vehicle or CVRAS accredited retrofit solution;
		• The compliant replacement vehicle awaiting delivery or the CVRAS accredited retrofit solution being applied to the non-compliant vehicle(s) the exemption is being requested for; and
		• Where a vehicle is being retrofitted, the registration number of the vehicle(s) order for retrofit matches the non-compliant vehicle(s) on the application for exemption.
		 Declaration that the non- compliant vehicle is registered to the applicant, or an authorised employee, director or trustee of the applicant/organisation (as evidenced on the V5C)

Permanent local discounts	Description	Information on Application
	Owners or registered keepers of	 An image or copy of the V5C document for the non-compliant vehicle which shows the VRM and the vehicle classification
Private HGV Tax Class vehicles	vehicles in the DVLA Private HGV Tax Class ⁶ and meeting the definition of a "special vehicle" in paragraph 4(2) (bb) of Part IV of Schedule 1 to the VERA The vehicle would be subject to a charge equivalent to the LGV daily charge (£10 a day), rather than the HGV daily charge (£60 a day).	 Declaration that the non-compliant vehicle is registered to the applicant, or an authorised employee, director or trustee of the applicant/organisation (as evidenced on the V5C or finance/lease agreement) Declaration that the non-compliant vehicle meets the definition of a "special vehicle" in paragraph 4(2)(bb) of Part IV of Schedule 1 to the VERA^{Error!} Bookmark not defined.

4. Recommendations

4.1. The recommendations are set out at the front of the report.

⁶ Information on tax classes for vehicles is available at: <u>https://www.gov.uk/government/publications/v3551-notes-about-tax-classes</u>



Agenda Item 7

GM Air Quality Administration Committee

Date:	21 January	2022
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Subject: GM Clean Air Plan – Financial Support Scheme Jan 22 Update

Report of: Councillor Andrew Western, Portfolio Lead for Clean Air

Purpose of Report

This report sets out an updated commentary on the arrangements to distribute Clean Air funds to support Private Hire Vehicles, Hackney Carriages, HGVs, coaches, minibuses and Light Goods Vehicles; and presents the findings of an initial review of conditions within the supply chain of Light Good Vehicles in particular which is impacting the availability of compliant vehicles. The report recommends a targeted review of aspects of the policy in the light of these findings.

Recommendations:

The Air Quality Administration Committee is requested to:

- Write to the Secretary of State requesting that he agrees to pause opening of the next phase of Clean Air Funds at the end of this month to enable an urgent and fundamental joint policy review with Government to identify how a revised policy can be agreed to deal with the supply issues and local businesses' ability to comply with the GM CAP.
- 2. Note that the implementation of all other aspects of the agreed GM Clean Air Plan will continue to the schedule previously agreed.

Contact Officers

Eamonn Boylan - Chief Executive, GMCA and TfGM -

eamonn.boylan@greatermanchester-ca.gov.uk

Simon Warburton – Transport Strategy Director, TfGM – simon.warburton@tfgm.com

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Liz Treacy – GMCA Solicitor and Monitoring Officer – liz.treacy@greatermanchesterca.gov.uk

Megan Black – Interim Head of Logistics & Environment

megan.black@tfgm.com

Equalities Impact, Carbon and Sustainability Assessment:

The GM CAP is a place-based solution to tackle roadside NO₂ which will have a positive impact on carbon.

Risk Management

Initial risk register set out in Clean Air Plan OBC (March 2019).

Legal Considerations

Set out in section 4.

Financial Consequences – Revenue

Initial Financial Case set out in Clean Air Plan OBC (March 2019), with all development and delivery costs to be covered by central Government.

Financial Consequences – Capital

Initial Financial Case set out in Clean Air Plan OBC (March 2019), with all development and delivery costs to be covered by central Government.

Number of attachments to the report: 1 (one)

Comments/recommendations from Overview & Scrutiny Committee

Not applicable.

Background Papers

- 18 November 2021, report to the AQAC: GM Clean Air Plan GM Clean Air Funds assessment mechanism
- 18 November 2021, report to the CACC: GM Clean Air Plan GM Clean Air Plan Policy updates
- 13 October 2021, report to AQAC: GM Clean Air Plan Operational Agreement for the Central Clean Air Service
- 13 October 2021, report to CACC: GM Clean Air Plan Showmen's Vehicle Exemption
- 13 October 2021, report to CACC: GM Clean Air Plan Clean Air Zone daily charge refund policy
- 13 October 2021, report to CACC: GM Clean Air Plan A628/A57, Tameside Trunk Road Charging Scheme

- 21 September, report to AQAC: GM Clean Air Plan Clean Air Zone: Camera and Sign Installation
- 21 September, report to AQAC: GM Clean Air Plan Bus Replacement Funds
- 25 June 2021, report to GMCA: GM Clean Air Final Plan
- 31 January 2021, report to GMCA: GM Clean Air Plan: Consultation
- 31 July 2020, report to GMCA: Clean Air Plan Update
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- 31 January 2020, report to GMCA: Clean Air Plan Update
- 26 Jul 2019, report to GMCA: Clean Air Plan Update
- 1 March 2019, report to GMCA: Greater Manchester's Clean Air Plan Tackling Nitrogen Dioxide Exceedances at the Roadside - Outline Business Case
- 11 January 2019, report to GMCA/AGMA: Clean Air Update
- 14 December 2018, report to GMCA: Clean Air Update
- 30 November 2018, report to GMCA: Clean Air Plan Update
- 15 November 2018, report to HPEOS Committee: Clean Air Update
- 26 October 2018, report to GMCA: GM Clean Air Plan Update on Local Air Quality Monitoring
- 16 August 2018, report to HPEOS Committee: GM Clean Air Plan Update
- UK plan for tackling roadside nitrogen dioxide concentrations, Defra and DfT, July 2017

Tracking/ Process

Does this report relate to a major strategic decision, as set out in the GMCA Constitution

No

Exemption from call in

Are there any aspects in this report which means it should be considered to be exempt

from call in by the relevant Scrutiny Committee on the grounds of urgency? No

GM Transport Committee - Not applicable

Overview and Scrutiny Committee – Not applicable

1. Introduction

1.1 The Government has instructed many local authorities across the UK to take quick action to reduce harmful Nitrogen Dioxide (NO₂) levels following the Secretary of State issuing a direction under the Environment Act 1995. In Greater Manchester, the 10 local authorities, the Greater Manchester Combined Authority (GMCA) and Transport for Greater Manchester (TfGM) are working together to develop a Clean Air Plan to tackle NO₂ Exceedances at the Roadside, herein known as Greater Manchester Clean Air Plan (GM CAP).

- 1.2 The GM CAP is a package of measures to deliver NO₂ reductions to within legal limits within the shortest possible time. The GMCA Clean Air Final Plan report on 25 June 2021¹ endorsed the GM Final Clean Air Plan and policy following a review of all of the information gathered through the GM CAP consultation and wider data, evidence and modelling work. The plan has been agreed by the ten GM Local authorities. This includes the GM Clean Air Plan Policy, that outlines the boundary, discounts, exemptions, daily charges of the Clean Air Zone (CAZ) as well as the financial support packages offered towards upgrading to a compliant vehicle, including the eligibility criteria to be applied. The aim of the funding is to support an upgrade to a compliant vehicle and to mitigate the negative socio-economic effects of the GM CAZ.
- 1.3 The GMCA Clean Air Update report of 29 May 2020² detailed that in March 2020 the government provided initial funding of £41m for clean vehicle funds to award grants or loans to eligible businesses: £15.4m for bus retrofit, £10.7m for Private Hire Vehicles, £8m for HGVs, £4.6m for coaches and £2.1m for minibuses. Note: These figures include JAQU estimated delivery costs at 5%.
- 1.4 The GMCA Clean Air Final Plan detailed that GM had been awarded £14.11m for Hackney Carriages and £73.5m for Light Goods Vehicles. The Hackney Carriage award comprises £10.61m to support grants and loans to upgrade vehicles. Note: These figures include JAQU estimated delivery costs at 5%.
- 1.5 The 25 June 2021 GMCA report, as agreed by the Greater Manchester authorities (GM) set out that the Air Quality Administration Committee has the authority to establish and distribute the funds set out in the agreed GM Clean Air Plan policy.
- 1.6 On 21 September the Air Quality Administration Committee approved the establishment and distribution of the bus replacement funds.
- 1.7 On 13 October the Air Quality Administration Committee agreed the distribution Clean Air funds set out in the agreed GM Clean Air Plan policy as follows:
 - From 30th November 2021 applications for funding will open for HGVs.
 - From the end of January 2022 applications for funding will open for Private Hire Vehicles, Hackney Carriages, coaches, minibuses and Light Goods Vehicles.
- 1.8 On 18 November 2021 the Air Quality Administration Committee agreed the assessment mechanism to allow for Clean Air Funds to be adapted, if necessary (including a process for considering whether additional funding is required), if the impacts of the Clean Air Zone prove to be more severe than forecast.
- 1.9 This report sets out an update on the arrangements to distribute funds to support Private Hire Vehicles, Hackney Carriages, HGVs, coaches, minibuses and Light Goods Vehicles as set out in the agreed GM Clean Air Plan policy.

2. Background – National Air Quality Action Plan

2.1 Since 2015, UK government has overseen a policy development process around the management of excessive levels of NO₂, as defined by World Health Organisation standards, which the Government placed into UK law in 2010.

¹ Also considered by the GM authorities through their own constitutional decision-making arrangements.

- 2.2 The approach taken by government followed legal action taken by Client Earth, which found that the UK had been in breach of the legal limits of levels of NO₂ since 2010, and by 2015, compliance with the legal limits of NO₂had still not been achieved. In a legal action in 2015, the UK government was held to be in breach of its legal obligations by the UK Supreme Court and was required to take action.
- 2.3 Two years later, in July 2017, the UK government published its Air Quality Plan to respond to the ruling about the ongoing breach of legal limits of NO₂.
- 2.4 The Plan required those local authorities with persistent NO₂ exceedances to undertake local action to consider the best option to meet the legal NO₂ Limit Value in the shortest possible time, and set out a specific approach and guidance for those local authorities to adopt.
- 2.5 At that time, the Secretary of State also issued a Direction, under the Environment Act 1995, requiring seven Greater Manchester local authorities to produce a feasibility study to identify the option that would deliver compliance with the requirement to meet legal limits of NO₂ in the shortest possible.
- 2.6 The Direction required the authorities to follow a prescribed process, set out in the Air Quality Action Plan^{2,} which included:
 - A national policy presumption towards introducing charging Clean Air Zones as the measure "which will achieve statutory NO₂ limit values in towns and cities in the shortest possible time";
 - Definitions of vehicles to be considered across Category A, B, C and D Charging Clean Air Zones; and
 - Definitions of vehicle standards for compliance (Euro 6 diesel, Euro 3/4 petrol).
- 2.7 Government's Plan also set out the assessment criteria for feasibility studies, which required local authorities to prioritise the reduction of NO₂ emissions above any wider social or economic outcomes.
- 2.8 In due course, this Direction was extended to all ten GM local authorities to prepare a Plan for approval by the Secretary of State.3 The current Direction requires the 10 GM authorities jointly to implement a GM-wide CAZ C, with additional measures, as soon as possible and at least in time to bring forward compliance to 2024.

² 2017 <u>UK plan for tackling roadside nitrogen dioxide concentrations: Detailed plan</u> (publishing.service.gov.uk)

³Oldham Metropolitan Borough Council (MBC) was not directed along with the other Greater Manchester local authorities (alongside Rochdale MBC and Wigan MBC) in 2017, however following a court ruling in 2018²⁴ the UK Government was ordered to produce supplements to the UK 2017 Air Quality Plan. Consequently, Oldham MBC was directed to conduct a feasibility study and provide the Secretary of State with a document setting out the measure(s) that would achieve compliance with the Legal Limits in the shortest possible time. In October 2018 the UK Government produced a supplemental plan, which acknowledged that, as Oldham MBC is part of the Greater Manchester Plan, the Oldham exceedances were being considered as part of the GM CAP. Local modelling in the Target Determination exercise also identified exceedances in Rochdale and Wigan.

Greater Manchester's response to Government policy

- 2.9 The Greater Manchester authorities (GM) share the view of Government that poor air quality is a severe risk to the public's health, affecting all parts of the population in different, harmful ways. The 1,200 early deaths in Greater Manchester each year that are associated with poor air, the significant impact on those with lung and heart conditions or the estimated £5.3 billion additional health and social care costs that air pollution could bring, means there is a compelling case to act.
- 2.10 GM also recognises that, whilst generally, air quality has been improving over time, particular pollutants remain a serious concern particularly in urban areas where local concentrations can build up to dangerous levels. These are oxides of nitrogen (NOx) and its harmful form NO₂, and particulate matter (PM).
- 2.11 With road transport responsible for approximately 80% of NO₂ concentrations at the roadside, and with so many parts of the conurbation having been identified by the Government Plan, the Greater Manchester local authorities recognised that solutions within local authority boundaries would result in a confused and uncoordinated approach to managing improvements in air quality
- 2.12 As a result, GM has adopted a conurbation-wide approach to producing a Clean Air Plan, informed by local modelling that identified that concentrations of NO₂ on road links across all Greater Manchester authorities were forecast to exceed the legal Limit Value (40 µg/m3) beyond 2020. This has enabled one coherent set of effective measures, and associated mitigations and funds to be developed for the benefits of residents and businesses across the whole city-region; and it minimises the risk of unintended consequences, such as displacing existing, elevated NO₂ concentrations to other locations within Greater Manchester.
- 2.13 However, in developing GM's approach and in meeting the legal duty that Government has placed upon us, the Greater Manchester authorities have also been clear from the outset of the need to understand and address the economic consequences of the changes that the National Plan will bring for places and the businesses that operate within them.
- 2.14 GM has continued throughout to aim to develop a Clean Air Plan to maximise air quality benefits for all people living and working in Greater Manchester, and minimise the negative impacts. The prescribed nature of the approach that GM must follow the implementation of Clean Air Zones (CAZ) with specific categories determined nationally, shaped by legal action and national policy, mean that GM has had to push Government and its policy framework at each stage of the Plan's development. GM's approach enables one coherent set of effective measures, and associated mitigations and funds to be developed for the benefits of residents and businesses across the whole city-region; and it minimises the risk of unintended consequences, such as displacing existing, elevated NO₂ concentrations to other locations within Greater Manchester.
- 2.15 As the rest of this report sets out, this work has become increasingly important as the Plan has developed through a period of unprecedented change and disruption. GM have aimed to ensure a full appreciation within Government of the effects of any Clean Air Plan measures within and upon a dynamic and volatile local economy, particularly in the context of the effects of the Covid pandemic and associated public health measures.

2018: Early Development of a Clean Air Plan for Greater Manchester (2018)

- 2.16 GM authorities, supported by TfGM, have worked together to develop one, coherent and unified Clean Air Plan for Greater Manchester to tackle the problem of NO₂ exceedances, working within Government guidance and the Ministerial Directions.
- 2.17 A number of options to reduce NO₂ were explored, and their effects assessed. For example, options around a city centre zone for all diesel vehicles; a zone to the M60 boundary for all non-complaint vehicles; and town centre zones for commercially classified vehicles were considered.
- 2.18 The assessment reported publicly in 2018 found that this more complex array of zones would not have reduced the number of non-compliant sites sufficiently to address the extent of the problem. And further, it was recognised that multiple zones would not be straightforward for vehicle owners to navigate and comply with. In reaching this conclusion, GM was also clear that a significant and unique mechanism would be required to ensure effective funding to support and mitigate the effects of the Government-mandated Clean Air Zone.
- 2.19 Therefore, in 2018, the Mayor wrote on behalf of the GM authorities to the Secretary of State for the Environment highlighting specific actions needed to support any GM Clean Air Plan. These included:
 - Clear arrangements and funding to develop workable, local vehicle scrappage / upgrade measures;
 - Short term effective interventions in vehicle and technology manufacturing and distribution, led by national Government;
 - Replacement of non-compliant buses; and
 - A clear instruction to Highways England⁴ to implement measures which deliver compliance with legal limits for NO₂ on the strategic road network, for which they are responsible, in the shortest possible time.⁵

2019: Preparing an Initial GM Clean Air Plan

- 2.20 In March 2019, building on the findings and analysis of options in 2018, the Greater Manchester local authorities collaboratively submitted an Outline Business Case (OBC) for the GM CAP to the UK government's Joint Air Quality Unit (JAQU) outlining a package of measures to deliver compliance with the Limit Value for NO₂ emissions, based upon a Category C Clean Air Zone and vehicle funding programme.
- 2.21 GM authorities again highlighted how important it was to support local businesses, residents and operators to upgrade their vehicles, reflecting the older-than-average LGV fleet here and an economy dominated by small businesses. GM was clear that, without these supporting measures, there was a risk that the Clean Air Plan and the Clean Air Zone required by Government guidance would be ineffective if businesses could not afford to upgrade, and the effect of the scheme could cause severe economic damage.

⁵ from (<u>https://democracy.greatermanchester-ca.gov.uk/Data/GMCA%20-</u> %20Greater%20Manchester%20Combined%20Authority/20181026/Agenda/10_clean_air_plan.pdf)) Page 19

⁴ On 19 August 2021 it was announced that Highways England changed its name to 'National Highways' reflecting the new focus the company has on delivering the government's £27bn strategic roads investment programme, while also continuing to set highways standards for the whole UK.

- 2.22 These points were made in correspondence to Ministers. It was made clear, from early on in the process of discussions with officials and Ministers on the GM Clean Air Plan that the Clean Vehicle Funds for locally registered hackney and private hire vehicles; light and heavy goods vehicles; and local buses were an essential measure to achieve compliance, and that Government would need to adequately fund this measure.
- 2.23 In addition, in submitting the GM CAP OBC, GM set out its concerns about the ability of manufacturers and the second-hand vehicle market to respond to meet likely demand for compliant vehicles at an affordable price.
- 2.24 At that point, GM was able to demonstrate to Government that GM would require, as a minimum, a further one-year exemption from CAZ charges for LGVs, reflecting the volume of replacement needed and the fact that compliant vans had only come on the market in 2016 (compliant HGVs having been available since 2013).
- 2.25 Post-OBC (May 2019 March 2020), further research was undertaken into the LGV market, that included a public conversation on the OBC proposals, with two key outcomes. GM:
 - secured evidence to validate a proposal for a for temporary exemption, demonstrating that there would not be sufficient vans available (and at affordable prices) if charging was introduced for vans in 2021 – based on the market at that time (pre-Brexit and pandemic).
 - identified the 'third-hand vans' issue, i.e. that there is a group of van owners who
 typically buy vans that are 8+ years old and therefore outside of compliance within
 the timings of GM's scheme, with a particular issue for self-employed sole traders in
 the construction sector. This resulted in the development of the grant offer which
 provides for a higher proportion of upgrade costs than the offer for other vehicle
 types based on prices at that time.
- 2.26 GM also established its expectation at that point that Government would lead on short term effective interventions in vehicle and technology manufacturing and distribution, so as to ensure that high turnover businesses could access sufficient low emission vehicles to cascade Euro 6 stock into the market.

2020: Public Consultation and Initial Covid Review of the Plan

- 2.27 In March 2020, the progression of the Clean Air Plan was impacted by the COVID-19 pandemic. In May, the GM local authorities set out a forward plan for public consultation on the Plan, whilst stating the need to balance this against the impacts of COVID-19.
- 2.28 A Public consultation on the GM Clean Air Plan proposals, (including the CAZ, proposed boundary, times of operation, the charges and discounts and exemptions as well as the detail of proposals of the funds and vehicle finance) commenced in October 2020.
- 2.29 The consultation also sought feedback on the impact of COVID-19 on potentially affected individuals and businesses, alongside an additional research commission into economic data on Covid impact on GM, 76% of local businesses and 79% of taxi operators stated they had been financially impacted by COVID-19. This included increased levels of debt, reduced savings and lower turnover. Many stated any savings had been used and felt their credit rating had decreased.

- 2.30 GM's wider research backed this up⁶. GM found that business finances and investment patterns had been disrupted/damaged by the pandemic and therefore more time and financial support would be required. Sectors such as entertainment/events/catering suffered longer periods of shut-down, but did typically start with a newer fleet. Sectors such as construction were able to operate for longer but still reported impacts on turnover and profits, and had started in the worst position in terms of their fleet.
- 2.31 GM also found that Covid support funding was also more difficult to access for some self-employed people; and a case was made for a Hardship Fund, which Ministers rejected.
- 2.32 However, the consultation and Covid research findings were sufficient to make the case for both changes to the scale of funding to be offered to businesses and the timing of charges.
- 2.33 At that time, in particular, the research had found that there had been a major impact on the taxi and private hire sector, resulting in policy changes to direct more funds into minimum (Euro 6) vehicle change support and to extend a further year for GM-registered taxis/PHVs to prepare for the scheme.
- 2.34 Changes were also made to the scheme for LGVs. The temporary exemption extended by 5 months from 31st December 2022 to 31st May 2023 the latest possible time that charging can be introduced without affecting the year of compliance. The grant offer was increased by £1k to £4,500 for larger vans, which are more expensive and make up the majority of the fleet.
- 2.35 GM's work identified some irregularities in the vehicle market, with Spring 2020 being a particularly depressed period for vehicle supply, but industry advisors had expected a rapid market response in late 2020 and into 2021 at that time.

2021: Current GM Clean Air Plan

- 2.36 In March 2021, Ministers reconfirmed that, despite the continuing pandemic, their Direction to the GM authorities remained to jointly introduce a GM wide Category C Charging Clean Air Zone, as part of the GM Clean Air Plan, at the earliest opportunity and to ensure that all NO₂ exceedances would be addressed by 2024 at the latest.
- 2.37 Therefore, arrangements were made to progress the current Plan by the ten authorities, so as to enable them to meet their statutory duty. In preparation for this, GM set out in correspondence to Ministers, the authorities ongoing concerns around the economic and business conditions brought about by the pandemic.
- 2.38 GM requested and secured the establishment of a monitoring and adaptive planning mechanism, allowing GM to review the progress of the Plan, NO₂ levels and the performance and uptake of the funds and adapt accordingly. In particular this process was aimed at ensuring that the availability of funds (which had been set by Government at £120 million) would not constrain the ability of all sectors to make the change in fleet quality that GM were seeking.
- 2.39 As part of this process it is proposed that GM will publish the following information:
 - **GM CAP Tracker Report** published monthly to the GM Air Quality Administration Committee providing key operational performance and output data (this will be published a month in arrears e.g. April's report will be published in May).

⁶ GM CAP Impacts of COVID-19 Report

- Benefits Realisation Review published quarterly to the GM Air Quality Administration Committee providing data and qualitative information on the performance of the scheme, will outline any potential / actual issues and recommendations for mitigation (this will be published a quarter in arrears from September 2022[1]). Where relevant, supporting evidence from the latest research, monitoring, analysis or modelling will be appended to that report.
- The GM Clean Air Plan Annual Report published annually to the GM Air Quality Administration Committee providing information on all aspects of the Plan, from air quality data to finances. This will be published in July each year.
- The **Review of the GM Clean Air Plan Equality Impact Assessment** will be reported annually as part of the annual Monitoring Report.
- 2.40 This will be set out in the GM CAP Performance Management Plan to be considered by the committee at a future meeting.
- 2.41 Since July, TfGM has coordinated its early delivery in partnership with the GM authorities, including:
 - The roll out of local signage and ANPR cameras to ensure effective enforcement of the scheme;
 - Integration of cameras into a technology platform, that will also be connected to the payment and vehicle checking services which are being established by central government;
 - The roll out of funds to the bus sector to support vehicle retrofit and renewal;
 - The roll out of funds to, and notification of, the HGV sector to support vehicle retrofit and renewal;
 - Establishment of business advice support through the GM Growth Company;
 - Preparation for the extension of funds to LGV, taxi/PHV and other sectors from early in 2022; and
 - Preparation for registered keeper applications for the Clean Air Plan discount or exemptions where there is no national database of these vehicles (see separate report on the agenda).

2021/22: Review of LGV Supply Chain in GM

- 2.42 Through the autumn and into the winter months, it has being reported that there are significant challenges within the supply chain as a result of global shortages arising from the pandemic, which is impacting the availability of compliant vehicles. This emerging evidence supports a greater understanding of the impacts on GM business in sourcing compliant second-hand vehicles particularly vans, reflecting the scale of that sector within the vehicles impacted in Greater Manchester's CAZ.
- 2.43 As the historic summary above has shown, GM has been from the outset concerned about the scale and diversity of the van fleet/van owning business sectors and the fact that compliant diesel vans had only become available in 2016 (whereas compliant heavy goods vehicles were introduced in 2013). The GM economy is one that is particularly dependent on diverse and active SMEs, many of whom rely on small commercial vehicles on a daily basis; and the age profile of vans in GM is significantly more challenging than the national average and, in 2019, only 20% of vans based here met the standards set by Government for Clean Air Zones.

^[1] The quarterly nature of this report may mean that in some cases the information would be due to be published in the pre-election period which would not be possible. In these cases, the report would be published as soon as reasonably practicable after the election.

- 2.44 This is why GM had been clear with Government from the outset in the Outline Business Case for the GM Clean Air Plan (2019) that Government must maintain a clear oversight of the supply chain conditions, within which the GM CAP will have to operate, recognising the structural nature of markets that are beyond the influence of any one local authority or area.
- 2.45 At the time the current GM Clean Air Plan was agreed, there was only evidence of a temporary disruption due to the pandemic in 2020, which was assumed to be addressed by the market, with the Society of Motor Manufacturers and Traders (SMMT) predicting some level of 'catch up'. Since then, evidence has grown on the continued impact that the pandemic, and related trade issues, has had vehicle supply chains.
- 2.46 A full report on GM's initial findings has been prepared by ARUP/AECOM attached as Appendix One. The summary outlines the current conditions in the van market are:
 - Pre-pandemic, there was significant growth in van mileage and van stock over a number of years and the expectation was that both growth trends would continue.
 - However, whilst the early phases of the pandemic and subsequent lockdowns and constraints in 2020 constrained demand, it appears that this effect was temporary and has been offset by growth in demand from some van-owning sectors.
 - The pandemic had a major impact on the number of new vans sold in the UK, initially due to the halting of production lines and local lockdowns around the world.
 - Whilst new van sales recovered to some extent, they are still not back to 2019 levels and so there is a substantial 'lost supply' that has not been recovered equating to 80,000 vehicles on a conservative assumption that 2019 levels had been maintained.
 - The global semiconductor shortage has also impacted the automotive industry and its effects are ongoing.
 - Britain leaving the EU may also have had an impact but it is not possible to separately identify that.
 - The industry is reporting significant supply issues with extended lead times for new orders.
 - It is anticipated that the introduction of clean air zones at particular locations in the UK will introduce some regional disparity in terms of the availability of certain vehicles and place additional demand pressure on the market in general.
 - Reliable data on the variation in the price of new vans as a consequence of the supply side issues discussed in Chapter 4 is not available.
 - There is substantial evidence of significant price increases in the second-hand van market the scale of those rises has a high degree of variability depending on the particular vehicle. The extent of the reported rise varies between 13% and almost 60%.
 - Overall, the evidence suggests that demand for new and second-hand vans remains strong, and therefore that the loss of supply caused by lockdowns in 2020 and more recently by the semi-conductor shortage is leading to price rises in the new and second-hand markets, and to long lead times for new vehicle orders.

3. Conclusion

- 3.1 The analysis provided by ARUP/AECOM was specifically commissioned to focus on the market conditions within the LGV sector, reflecting the scale of that sector within the vehicles impacted in Greater Manchester's CAZ. However, it is being reported that the factors reported in the van market are also being experienced by the other vehicle types that only reached EURO 6 compliance in 2016. Therefore on the basis of these findings and the reported issues for other vehicle types, GM are calling on Government to now step forward to jointly address these apparent and significant market issues; and to support the Greater Manchester authorities in reviewing the GM CAP policy in the light of their identification.
- 3.2 Greater Manchester authorities remain committed to tackling the public health issue of poor air quality, complying with their legal duties and working with Government and to the shared statutory duty to secure clean air across the UK. However, there is a fundamental concern that these global and national factors outside of their control or influence could impact their ability to secure compliance with NO₂ levels with the Plan as it stands, given the significant changes to both the supply of compliant vehicles, their price and the ability of local businesses and individuals to be able to secure complaint vehicles with the funds available.

4. Legal Considerations

4.1 The Direction provides that the GM authorities must-

"ensure that the local plan for NO2 compliance is implemented so that—

- (a) compliance with the legal limit value for nitrogen dioxide is achieved in the shortest possible time, and by 2024 at the latest;
- (b) exposure to levels above the legal limit for nitrogen dioxide are reduced as quickly as possible."
- 4.2 The local plan for NO₂ compliance is defined as that a "*Charging Clean Air Zone Class C with additional measures to be implemented as soon as possible and at least in time to bring forward compliance to 2024*," in accordance with earlier submitted proposals.
- 4.1 The Direction also provides that the GM authorities "*must not vary, revoke or* suspend their implementation of the local plan for NO₂ compliance ... without the prior written consent of the Secretary of State."
- 4.2 The GM CAZ is due to become operational on 30 May 2022. Engagement by government is therefore urgently required enable the required joint policy review, addressing the issues set out above, to be undertaken as quickly as possible.

5. Recommendations

5.1 In light of this new evidence, the Greater Manchester Air Quality Administration Committee are recommended to request that the Secretary of State agrees to pause opening of the next phase of Clean Air Funds at the end of this month to enable an urgent and fundamental joint policy review with Government to identify how a revised policy can be agreed to deal with the supply issues and local businesses' ability to comply with the GM CAP.

Greater Manchester's Clean Air Plan to tackle Nitrogen Dioxide Exceedances at the Roadside

Technical Note: Current issues in the Van Sector

FINAL

January 2022

ARUP **AECOM**

1. Introduction

Overview

- 1.1 Greater Manchester (GM) local authorities have been mandated by the Government to take quick action to reduce harmful Nitrogen Dioxide (NO₂) levels, issuing a direction under the Environment Act 1995 to undertake feasibility studies to identify measures for reducing NO₂ concentrations to within legal limit values in the "shortest possible time". In GM, the 10 local authorities have worked together with the support of transport for Greater Manchester (TfGM) to develop a Clean Air Plan (CAP) to tackle NO₂ exceedances at the roadside, referred to as GM CAP.
- 1.2 Government has directed GM to establish a Category C Clean Air Zone within the GM CAP that targets emissions from vans/light goods vehicles, alongside other commercial vehicle classes, with non-compliant vehicles (i.e. Euro 5 or earlier diesel engine or Euro 3 or earlier petrol engine) to be subject to emissions charges from 1st June 2023. Funds have been made available to help those GM-based van owners wishing to upgrade from non-compliant vans, subject to eligibility criteria.
- 1.3 The GM CAP has been developed based upon the best evidence available at the time, and following prescribed Government guidance. After the initial OBC submission, a series of technical notes were published setting out the results of analysis and research carried out to better understand the vehicles in scope for the scheme. For vans, this included in particular Technical Note 3: Analysis of the Freight Market, Technical Note 12: Evidence of the impact of a 2021 implementation of a CAZ C (without exemptions), and Technical Note 20: GM Specialist Goods Survey Results Summary¹. Further notes were produced setting out the development of analytical tools for freight, with the latest published summary of that work provided in T4 Appendix A of the Modelling for Consultation². Research was carried out with vehicle owners potentially in scope for the scheme, including deliberative research³ and a survey with 800 van owners⁴.
- 1.4 This evidence formed the basis of the development of the Option for Consultation. From March 2020, it became clear that the pandemic would affect the GM CAP; a programme of work was carried out in 2020/2021 to better understand the possible impacts of the Covid 19 pandemic on the Plan, published as the Impacts of Covid Report in June 2021⁵. This evidence, alongside feedback from the Consultation, was used to inform the revised Plan as approved by the ten GM local authorities in June/July 2021.
- 1.5 At that time, GM identified a number of possible risks to the GM CAP, which included concerns about the risk of vehicle price increases and the impact of any further lockdowns in the UK or countries in the supply chain. These were described in an updated Analytical Assurance Statement and sensitivity testing was carried out. These documents have been produced as part of the suite of materials in support of

Appendix A Behavioural Response Cost Models and Demand Sifting Tool.pdf

¹ All available at <u>Technical Documents | Clean Air Greater Manchester (cleanairgm.com)</u>

² https://assets.ctfassets.net/tlpgbvy1k6h2/3AKtd1g0fg5OwQFNzc5FlQ/2b42ae34e93d292a5ec2eb26f7f5e8fb/T4_-

³ <u>GM_CAP_Deliberative_Research_ALL - Spring_2019.pdf (ctfassets.net)</u>

 ⁴ <u>CCTS Listening Exercise (ctfassets.net)</u>
 ⁵ <u>GM CAP- Impact of COVID Report (ctfassets.net)</u>

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the Final Business Case which has been prepared for submission to Government and will be published once approved at a later date.

- 1.6 At that time, GM noted that, whilst the GM CAP reflected the best approach and evidence available at the time decisions were made, it is clear that the Plan is sensitive to some of the assumptions made, and that traffic, travel and economic conditions are in a state of flux. It is vital that the proposals contained in the GM CAP remain appropriate and effective throughout the lifetime of the interventions and therefore GM is putting an adaptive planning process in place. This process ensures that GM can:
 - Set out a clear process for monitoring the performance of the Plan and factors affecting the plan;
 - Review progress towards achieving compliance in the shortest possible time and minimising or mitigating disbenefits; and
 - Identify issues and make the case for change where appropriate and necessary.
- 1.7 Since the GM CAP proposals were approved in June/July 2021, it has become increasingly clear that there have been pressures on the van market affecting the availability of sufficient vehicles to meet demand. Feedback from van users and industry press suggests this is impacting on the price of used vehicles and lead times for new ones. The purpose of this technical note is to provide information about the current van sector and its ability to comply with the GM CAP.
- 1.8 The report draws a series of conclusions and makes recommendations for further work to be considered by GM and the UK government to better understand the current circumstances affecting van owners and the implications for the GM CAP and surrounding policy framework.

Structure of Note

- 1.9 The remaining sections of the report are structured as follows:
 - Section 2 provides an overview of the current van sector in GM;
 - Section 3 describes the national van market trends and vehicle volumes;
 - Section 4 describes issues affecting the demand for vans;
 - Section 5 describes issues affecting the supply of vans;
 - Section 6 sets out the impact of supply and demand on van prices;
 - Section 7 considers the impact of supply constraints and price rises on the GM CAP; and
 - Section 8 provides a summary of the key findings and recommendations.

2. Overview of the van sector in GM

Diversity and importance of the Van Sector

- 2.1 Vans are vital to the UK economy. Nationally, 3.4 million people use or depend on vans for their work and half a million people drive a van as the main part of their job. In total, vans support 10% of the UK's workforce, delivering a combined wage bill of £56bn or 11% of GDP⁶.
- 2.2 There has been a 56% growth in the van sector since 2000, mainly in the larger van market. This has been driven by an increase in the number of self-employed tradespeople and the rapid rise in online shopping. The pandemic has strengthened the trend towards online shopping, with many (especially older) people shopping online for the first time⁷.
- 2.3 More than three quarters of vans are medium or large, and the van market encompasses a wide range of vehicle types, as shown in **Figure 2-1**. Some vehicles will include refrigeration or other modifications, and many van owners will have fitted out their van interior to include shelving, for example.
- 2.4 Vans serve a wide range of sectors, as illustrated in **Figure 2-2.** A quarter of GM's vans fleet serves the construction sector (24%), with other major sectors including wholesale & retail (16%), manufacturing (13%), and transport & storage (9%).

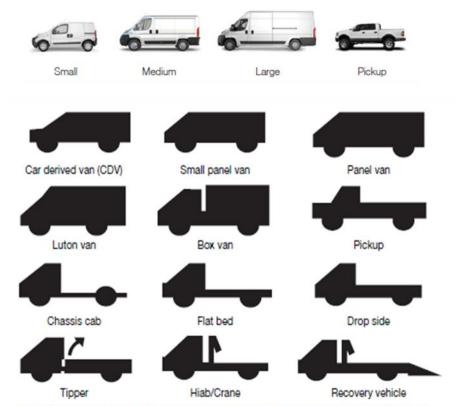


Figure 2-1 Vehicle Types Classified as a Van

Note: other variants include double-cab derivatives of those in Table 3.1, short/medium/long wheelbase derivatives, front or rear-wheel drive derivatives and specialised vehicles such as ambulances, hearses, armoured vehicles and horse boxes.

⁶ Data throughout this section sourced from <u>Note 3 - GM CAP Analysis of the Freight Market (ctfassets.net)</u>

⁷ Statista Accessed 5th January 2022 https://www.statista.com/statistics/1230225/changes-in-online-buying-among-uk-consumerssince-covid-19/

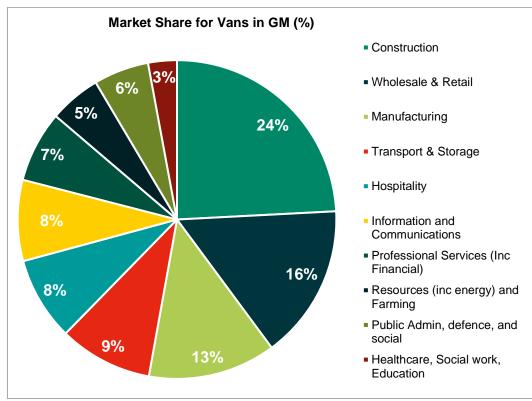


Figure 2-2 Market share for Vans in GM

- 2.5 GM carried out analysis considering how vulnerable different sectors were to the GM CAP. This was carried out before the pandemic, and then revisited based on evidence of the impact of Covid on each sector⁸. A summary of that analysis is shown in **Figure 2-3**.
- 2.6 There is a high proportion of sole traders in the most vulnerable sectors. Van drivers have low average incomes, with analysis suggesting that the cost of the charge could equate to 15% of average income.
- 2.7 Longer vehicle lifespans are associated with smaller businesses and sole traders most commonly found in sectors such as removals and construction. Companies operating larger fleets, such as those in the food and retail sectors, typically replace vehicles more frequently and are therefore more likely to have CAZ compliant vehicles at present, although some parts of those sectors have been badly affected by the pandemic in terms of extended periods of closure or constrained operations.
- 2.8 Research conducted by GM in Autumn 2019⁹ with 800 sole traders and microbusinesses found that 48% of businesses change their LGVs when they are over 10 years old or no longer fit for purpose, in comparison with 20% who update their vehicles before they are 4 years old¹⁰.
- 2.9 The largest sector; construction, makes up 24% of the GM market and includes over 21,000 vehicles affected by the CAP, 38% of the total overall affected vans. LGVs in the construction sector have the longest lifespans, with an average replacement age of 15 years.

⁸ <u>GM CAP- Impact of COVID Report (ctfassets.net)</u>

 ⁹ CCTS Listening Exercise (ctfassets.net)
 ¹⁰ CCTS Listening Exercise (ctfassets.net)



	Castan		CAZ introduced in 2023	
Sectors	Sector Percentage	Vehicle Replacement Age	Non-compliant percentage	Vulnerability
Construction	24%	15	56%	Very High
Wholesale, retail & repair of motor vehicles	16%	10	34%	High
Manufacturing	13%	10	34%	High
Transport & storage	9%	10	34%	High
Accommodation & food services	8%	9	27%	Medium
Information & communication	6%	9	27%	Medium
Professional, scientific & technical activities	4%	10	34%	High
Mining, energy & water supply	4%	10	34%	High
Public admin. & defence; social security	4%	12	45%	Very High
Human health & social work activities	2%	12	45%	Very High
Other services	2%	12	45%	Very High
Financial & insurance activities	2%	9	27%	Medium
Administrative & support services	2%	12	45%	Very High
Agriculture, forestry & fishing	1%	15	56%	Very High
Real estate activities	1%	9	27%	Medium
Education	1%	10	34%	High
Royal Mail	1%	9	0%	Very Low
Total	100%	-	40%	-

Figure 2-3 Vulnerability to the GM CAP by van-owning sector, post-pandemic

Vulnerability Criteria		
10% and below	Very Low	
11-20%	Low	
21-30%	Medium	
31-40%	High	
40% and above	Very High	

Compliance of the van fleet serving Greater Manchester

- 2.10 GM estimates that there are around 278,000 vans serving the region, of which around 136,000 are thought to be located within the GM boundary.
- 2.11 **Table 2-1** presents the number of LGVs estimated to be serving Greater Manchester in 2019, including splits by compliant and non-compliant vehicles which failed to meet Euro VI standards at that point.

	GM Based	Non-GM Based	Total
Compliant	27,290	74,147	101,437
Non-Compliant	108,456	67,535	175,991
Total	135,746	141,682	277,428

Table 2-1 Number of vans in GM by compliance – 2019

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- 2.12 In 2019, there were 277,400 LGVs serving Greater Manchester¹¹ with 37% deemed compliant and 63% non-compliant. Vehicles based in GM had a lower level of compliance than those based outside GM, with only 20% of LGVs deemed compliant and 80% non-compliant (compared to 52% compliance for LGVs based outside of GM). Overall, there were slightly more LGVs serving GM that were not based in GM (141,700) in comparison with LGVs based in the city region (135,700).
- 2.13 The large proportion of LGVs which are non-compliant is in part due to relatively long vehicle lifespans, typically ranging between 9-15 years depending on the industrial sector in question, and due to the fact that compliant vans did not come onto the market until 2015, with the Euro 6 standard coming into force for vans in 2016.
- 2.14 A proportion of the vans in the fleet would normally be upgraded each year, with the oldest vehicles being scrapped out of the fleet. GM's forecasting suggests that the number of non-compliant vans based in GM will have reduced from 108,500 in 2019 to 76,800 by 2023. This means that around 31,600 vans would have been upgraded from a non-compliant to compliant vehicle as a result of business-as-usual purchases.
- 2.15 The anticipated rate of upgrade for vans was revised in 2021 based on evidence that the Covid-19 pandemic had delayed vehicle purchases, such that the fleet was estimated to be around 2 months older than previously forecast. The rationale and methodology for this change is set out in the report "GM's proposed approach to representing the impact of Covid 19 in core modelling scenarios"¹². This had the effect of reducing the number of GM-based vans expected to make a business-as-usual upgrade between 2019 and 2023 by 1.4k.
- 2.16 **Table 2-2** sets out the number of vans estimated to be serving GM in 2023, by whether they are expected to be compliant without the GM CAP being introduced.

	GM Based	Non-GM Based	Total
Compliant	58,935	86,122	145,056
Non-Compliant	76,811	55,560	132,371
Total	135,746	141,682	277,428

Table 2-2 Number of vans in GM by compliance – 2023

Source: FBC Appendix V, T4 Annex C: Vehicle Population Estimates

Impact of the GM CAP on Van Upgrades

2.17 As set out above, it is anticipated that 76,800 GM-based vans will be non-compliant in 2023 and will therefore need to upgrade their vehicle or pay the charge in

¹¹ Based upon 2019 ANPR splits

https://assets.ctfassets.net/tlpgbvy1k6h2/2ZMJ3DJXiv7p3xOeZu4CYQ/247196ef60e33ac89f7f8938e1e16418/Appendix_6D____GM_ proposed_approach_to_representing_the_impact_of_Covid-1

response to the GM CAZ until compliance with the Government Direction has been achieved.

- 2.18 Of these, it is estimated that up to 59,000 may be in scope¹³ for support from the Clean Commercial Vehicle Fund. This Fund provides financial support of up to £3,500 for the purchase of a compliant van up to 1.6t and up to £4,500 for the purchase of larger compliant van up to 3.5t, with a grant of up to £5,000 available for retrofit where available, subject to eligibility criteria. GM has secured £70m to support the upgrade of vans, sufficient to support around 15,900 vehicles.
- 2.19 **Table 2-3** sets out the number of vans estimated to be serving GM in 2023, by whether they are expected to be compliant with the introduction of the GM CAP.

	GM Based	Non-GM Based	Total
Compliant	107,345	129,550	236,895
Non-Compliant	28,401	12,132	40,533
Total	135,746	141,682	277,428

Table 2-3 Number of vans in GM by compliance, with GM CAP – 2023

Source: FBC Appendix V, T4 Annex C: Vehicle Population Estimates

¹³ https://assets.ctfassets.net/tlpgbvy1k6h2/2VNncClzejAvGh3CrVn0oo/d45528de22e593c9be285ddf5b26373b/Appendix_1_-_GM_Clean_Air_Plan_Policy_following_Consultation.pdf Page 32

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3. National Van Market

Overview of the Van Market

- 3.1 On average, around 367 thousand new vans are registered nationally each year. New vehicles are primarily purchased by larger businesses, vehicle rental companies and the leasing sector. Many large fleet operators lease rather than own their vehicles, and most such vehicles are kept for around 3 to 5 years, with vehicles from the rental sector typically entering the second-hand market first. These good quality second-hand vehicles are typically purchased by small businesses.
- Vehicles may then be released onto the market again at 8 to 10 years old, into the 3.2 third-hand van market, which are typically purchased by people and businesses working in the construction, transport and storage sectors.
- 3.3 Compliant diesel vans came onto the market in 2016 (some early models may have been available from 2015), meaning that the second-hand market for compliant vans started to exist at scale from 2019 onwards.
- 3.4 Pre-pandemic evidence suggested that there are around 10-12,000 second-hand van sales per week nation-wide, of which around 4% take place in GM.
- 3.5 This evidence is set out in more detail in GM CAP Technical Note 3: Analysis of the Freight Market¹⁴.

Van Ownership and Usage

- The Department for Transport (DfT) undertook a survey of van activity in Great Britain 3.6 in 2019¹⁵. This looked at van ownership, van mileage, where and when vans are traveling, and environmental factors. The survey field work was carried out in 2019-20, prior to any Covid-19 related restrictions.
- 3.7 The survey showed that the most common primary usage of licensed vans was for 'carrying equipment, tools and materials' (54%), followed by 'delivery/collection of goods' (16%) and 'private/domestic non-business use' (16%).
- 3.8 Over half (57%) of business kept vans were new; 35% owned outright and 22% owned via a hire purchase agreement. Most privately kept vans were second-hand (82%). Within the DfT survey, the keeper of the vehicle is defined as that responsible for registering and taxing the vehicle only. The keeper of the vehicle is not necessarily the owner or the driver. Furthermore, the keeper is either an individual or a business (including sole trader, partnership or limited company).
- Around half of all vans (51%) in Great Britain stayed local, within 15 miles of their 3.9 base, on a typical day.
- 3.10 Associated statistics produced by the department showed that average mileage for vans has remained broadly stable in recent years (pre-pandemic) at around 13,000 miles per year.

¹⁴ https://assets.ctfassets.net/tlpgbvy1k6h2/sxMVbAwfJrcq3tFd9Thb7/fd8843b6d128ef318da320ee22ca6ac5/3_-

<u>GM CAP Analysis of the freight market.pdf</u> ¹⁵ DfT Statistical Release 15 April 2021, Final Van Statistics A

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Van Manufacturers

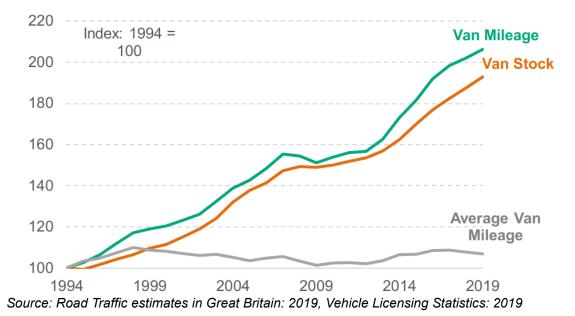
- 3.11 The British van market in 2021 has sales of 355,380 vehicles under 3.5 tonnes. The biggest growth in recent times is in the area of large vans (2.5-3.5 tonnes) which are typically used by parcel companies, food home deliveries and in the construction sector.
- 3.12 The top 10 selling models represent around 60% of the market. Within this top 10 there are three Ford Transit variants which represent 99,185 of sales (28% of the total market) and these vans are made in Turkey. The next best seller is Mercedes Sprinters with 6% of the market. The main van made in the UK is the Vauxhall Vivaro made by Stellantis, and this had sales of 17,957 (5%) of the market.
- 3.13 Almost 95% of vans sold in the UK are imported and reliance on imports has grown over the last twenty years and changed significantly when Ford shut their van plant in Hampshire. Around 330,000 vans were imported last year whilst 60% of vans made in the UK are exported.

4. Van Demand

Historical Trends Pre-Pandemic

- 4.1 The Department for Transport's (DfT) road traffic estimates indicate that van travel has grown substantially over the last 25 years, increasing 106% to 55.5 billion vehicle miles in 2019. Van travel as a proportion of all motor vehicle miles has increased from 10% to 16% over the same period.
- 4.2 This, together with the relationship to the scale of the van stock, is illustrated in Figure 4-1 from the DfT statistical bulletin relating to the 2019 survey¹⁶.

Figure 4-1 Trend of Van Stock and Van Traffic, Great Britain 1994-2019



4.3 The increase in van stock in recent years evident from Figure 4-1 reflects the significant demand for new vans which has been on a consistently upward trend for many years.

Demand Trends Pre-Covid

- The Society of Motor Manufacturers and Traders (SMMT) 2019 Report¹⁷ identified 4.4 the following as aspects in the increase in demand seen in the sector since 2000:
 - the van parc (the total number of vehicles in operation) has grown by 59% while, by contrast, the HGV parc has shrunk by 2%;
 - the majority of this growth has been driven by demand for larger vans (2,600-3,500 kg Gross Vehicle Weight);
 - Factors fuelling this growth include a fundamental shift in consumer behaviour with the growth of online shopping;
 - an increase in vans as businesses seek to develop more agile logistics operations in response to the growth in the 'fulfilment from store' model (a service which previously would have been completed by an HGV); and

¹⁶ DfT Statistical Release 15 April 2021, Final Van Statistics April 2019 - March 2020

¹⁷ Light Commercial Vehicles, Delivering for the UK Economy, 20406035

a rise in self-employment (from 3.3 million in 2001 to 4.8 million in 2017)¹⁸.

Impact of Covid

- 4.5 Van sales have been heavily impacted by pressures associated with Covid. SMMT data shows April and May 2020 being particularly poor months for new van registrations.
- 4.6 Supply constraints on delivery of new vehicles in the early 2020 lockdown, were gradually released into the summer as already purchased and manufactured vehicles could be delivered and received. At this point, new orders were likely delayed due to market uncertainty in the early phases of the pandemic.
- 4.7 However, whilst the early phases of the pandemic and subsequent lockdowns and constraints in 2020 constrained demand, it appears that this effect was temporary based on SMMT new van registration monthly data (see later in **Figure 5-1**) and has been offset by growth in demand from other sectors.
- 4.8 Home deliveries surged during the lockdown in 2020, with traditional 'bricks and mortar' retail affected by closures for at least three months of the year. This led to many consumers increasing their use of on-line deliveries or using it for the first time.¹⁹ This includes the grocery sector, which whilst not subject to the enforced closures of other retailers, saw increased demand for home deliveries as customers looked to avoid social contact in-store.
- 4.9 This has seen an increase in the use of and demand for vans as companies frequently use these vehicles for home deliveries (although some companies have drivers using their own cars). Vans are the vehicle of choice as larger HGVs are impractical and undesirable for most residential streets and the more stringent regulation and licensing requirements of those vehicles.²⁰

Green Agenda/Corporate Social Responsibility

- 4.10 Many fleet operators and individual van owners are looking to transition their fleets to vehicles using low or zero emission fuels. In the Mayor's round table session with large fleet operators held in December 2021, many commented that they had corporate goals to speed up the transition of their fleet to electric, from Euro 5 or 6 diesel, but that they were finding it difficult to do so because of the issues in the supply chain. In some cases, this meant that they were retaining existing vehicles for longer whilst they waited for new vehicles to arrive.
- 4.11 Electric vans in particular are increasingly attractive as their price relative to conventionally fuelled vehicles drops, range increases and lifecycle costs become more certain. Sales of electric vans are increasing, albeit from a low base and a lower market share than electric cars²¹. This may be placing additional demand pressure on the market, if operators are bringing forward vehicle replacements.

¹⁸ Trends in Self-Employment in the UK Office for National Statistics

¹⁹ Statista Accessed 5th January 2022 <u>https://www.statista.com/statistics/1230225/changes-in-online-buying-among-uk-consumers-since-covid-19/</u>

²⁰ Motor Trader Accessed 5th January 2022 <u>https://www.motortrader.com/motor-trader-news/automotive-news/booming-home-delivery-construction-fuel-demand-vans-auction-25-08-2021</u>

²¹ Fleet Europe Accessed 5th January 2022 <u>https://www.fleeteurope.com/en/last-mile/europe/analysis/why-electric-van-sales-are-set-soar?a=JMA06&t%5B0%5D=e-</u>
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Clean Air Plan Initiative

- 4.12 Modelling associated with the CAP forecast that almost 70% of van owners whose vehicles operate in Greater Manchester were expected under previous conditions to upgrade their vehicles to Euro VI engines or better to avoid the charge, taking advantage of associated funding support. Similarly, the London Ultra Low Emission Zone, along with other smaller city centre CAZs will lead to increased demand for compliant Euro 6 models.
- 4.13 This will increase demand for compliant vehicles, and more substantially at a regional level in GM and London, which for the used vehicle market could lead to regional disparities in purchasing trends and therefore demand across the wider UK.

Forecasting Van Demand

4.14 In October 2021 SMMT released a forecast of van sales for the next 3 years, demonstrating that they expect registrations to increase each year to 2023.

Table 4-1 Forecast van sales between 2021 and 2023, SMMT

Fo recast Year	2021	2022	2023
Projected van registrations (thousands)	340*	364	378

Source: SMMT

Note: The 2021 sales achieved 355,000, 15,000 more than the October 2021 projection.

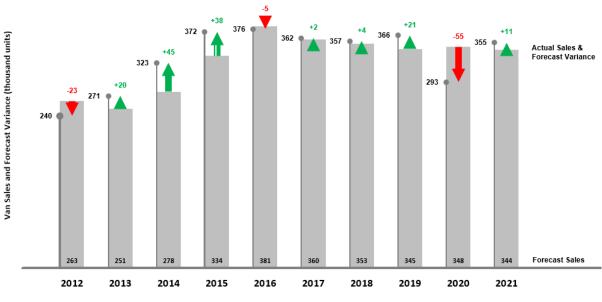
- 4.15 The SMMT historic forecast van sales estimates are useful to understand how the manufacturing base anticipates demand and enables supply. The SMMT annual forecasts have been analysed against the actual van sales to help gain insight on trend in supply versus predicted demand.
- 4.16 Figure 4-2 and Figure 4-3 show the variance between actual new van registrations and the SMMT January forecast for the forthcoming year and the following year, respectively²².

LCV&t%5B1%5D=Dataforce&t%5B2%5D=Arrival&t%5B3%5D=EV100&t%5B4%5D=Renault&t%5B5%5D=Nissan&t%5B6%5D=Merced es-Benz%20Vans&curl=1 ²² SMMT accessed 9th January 2022, https://www.smmt.co.uk

ARUP **AECOM**

Figure 4-2 SMMT Van Sales, Actual Sales and Variance from 1-Year Forecast

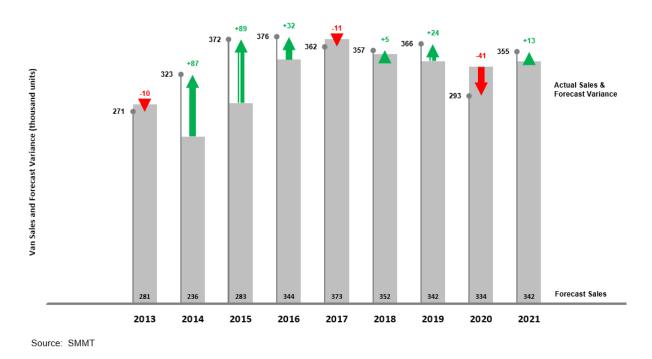
Forecast Sales for the Forthcoming Year vs Actual



Source: SMMT

Figure 4-3 SMMT Van Sales, Actual Sales and Variance from 2-Years On Forecast

Forecast Sales for Two Years On vs Actual



- 4.17 What this shows is that the SMMT forecasts have typically under-predicted sales, with the 2 Years On under-prediction more significant, which may be expected if demand is increasing quickly above previous trends.
- 4.18 The graphs also show that prior to the Covid-19 pandemic total van sales had been stable since 2015, with average sales at 367,000 per annum. Van sales in 2021 recovered back to close to typical levels, after the substantial drop in 2020. So,

whilst 2021 sales maybe similar to pre-Covid, the overall reduced new vehicle sales in 2020/21 would require a very significant increase in 2022 to recapture lost sales in time for the CAP 2023 opening. To simply recover the lost sales in 2020/2021, the 2022 registrations would need to be 448,000, equivalent to an immediate 23% increase over pre-Covid levels. This is in the face of supply constraints in the manufacturing process and ongoing economic uncertainty. In fact, the SMMT forecasts for 2022/23 presented in **Table 4-1** suggest continued typical levels, meaning there is predicted to be a shortfall in the new van fleet and associated impacts for the used van market too.

4.19 However, it can also be inferred that despite these constraints, manufacturing in 2021 has managed to deliver at previous levels of supply, and also owners purchasing new vehicles have been able to afford them. This indicates that there is strong and resilient demand in some sectors, at least those companies able to purchase new vehicles. What isn't clear from these data is how this might filter to the used van market nor whether some groups or sectors are deferring purchases due to high prices or lack of availability of suitable vehicles. The CAP behavioural modelling has been based primarily on a sustainable used van market and associated pricing, rather than the cost and availability of new vehicles.

5. Van Supply

Impact of the Pandemic

- 5.1 The pandemic had an initial direct impact on all types of vehicle production as production lines were halted at various times around the world dependant on local lockdown rules. The ability of vehicle manufacturers to respond to demands for increased production is still being limited by the pandemic amongst other factors.
- 5.2 One factor arising from the pandemic is the pronounced effect that it had on the logistics sector, with employees across the supply chain required to isolate causing delays in the supply of parts, with parts from places such as Asia being unavailable due to production issues and temporary staff shortages there.²³
- 5.3 To review the impact of Covid-19 on national van sales, data from 2019 to 2021 for the registration of new vans has been used from SMMT.²⁴ As the registration data demonstrates in **Figure 5-1** van sales were significantly lower in March, April and May 2020 during the first lockdown.
- 5.4 **Table 5-1** displays the total number of vans registered in 2020 and 2021 compared to the last pre-pandemic year of 2019. Sales in 2019 were similar to the previous 5-year average of 367,000 and is therefore a reasonable comparator. In 2020 there were significantly fewer new sales with the total registered down 20%. There was some recovery in 2021 though sales remained 3% below pre-pandemic levels. The net effect is a reduction of over 80,000 new vans in circulation compared to what would have been expected based on pre-pandemic sales.

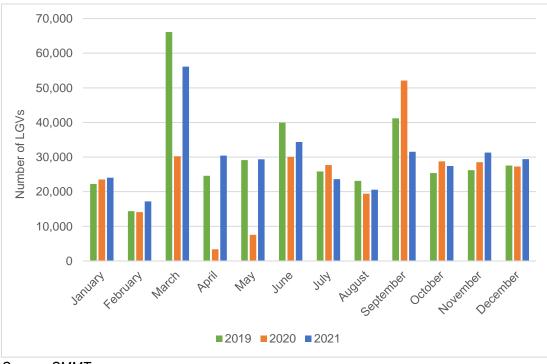


Figure 5-1 Registration of New Vans from 2019 to 2021

Source: SMMT

²³ Baker McKenzie Accessed 6th January 2022 <u>https://www.bakermckenzie.com/en/newsroom/2020/04/global-supply-chains-under-huge-pressure-covid-19</u>

²⁴ LCV Registrations – SMMT - https://www.smmt.co.uk/vepbg-opg/lcg-ogjistrations/

Year	Total	% Change from 2019
2019	365,778	-
2020	292,657	-20%
2021	355,380	-3%

Source: SMMT

Semiconductor Shortages

- 5.5 The global shortage of semiconductors began in the first quarter of 2021. Analysis by McKinsey²⁵ suggests that the demand for semiconductors in the auto industry in 2020 was below expectations by around 15%. But at the same time, some other market areas experienced rapid expansion, resulting in overall growth of 5% to 9% in semiconductor sales above forecasts. When the automotive sector's demand recovered, the semiconductor industry had already shifted production to meet demand for other applications.
- 5.6 As with other markets and industries there are also now Covid-related closures at semiconductor factories and international shipping ports²⁶.
- 5.7 Consultation with SMMT and vehicle manufacturers demonstrates the significant impact of the semiconductor shortage, with new vehicles typically containing over 1,000 semiconductor chips. This has led to manufacturers reducing their production targets, limiting the number of new vans entering the market.
- 5.8 Reports from Commercial Fleet earlier in 2021²⁷ highlighted that new vehicle supply was affected by the global semiconductor crisis with lead times for new vehicles increased and then standing at up to 12 months for certain factory-order models. Manufacturers were also reported to be removing some non-essential components (e.g. infotainment systems) from vehicle specification to maintain production.

Britain leaving the EU

5.9 It is challenging to disaggregate the impact of Britain leaving the EU and the Covid pandemic on supply chains and consumer confidence, however the changing trading arrangements with the EU meant that there were supply issues as businesses got used to new customs requirements (particularly in January/February 2020), which caused delays at major ports. This backlog is likely to have fed into the number of vehicles produced and subsequent registrations.

²⁵ https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/coping-with-the-auto-semiconductor-shortage-strategies-for-success

 ²⁶ https://www.autocar.co.uk/car-news/business-tech%2C-development-and-manufacturing/latest-updates-semiconductor-chip-crisis
 ²⁷ https://www.commercialfleet.org/news/van-news/2021/04/28/used-lcv-prices-to-rise-as-semiconductor-supply-crisis-hits-new-van-production

Views from the Industry

5.10 Consultation was undertaken with SMMT and van manufacturers, as well as a review of industry press on the issue.

Conversations with Society of Motor Manufacturers and Traders (SMMT) in 2021 & 2022:

The semi-conductor shortage has had a significant impact on vehicle production, with the typical vehicle comprising of 1,500 semi-conductor chips. Due to Covid-19 restrictions in South East Asia, approximately 19 semi-conductor plants have been closed, affecting supply. In addition, due to 'stay-at-home' restrictions, demand from other sectors such as the gaming industry has risen, further reducing supply. Car producers have been hit hardest as it is more difficult for high volume manufacturers to source chips. HGV manufacturers have more specialist providers which means they can source chips more easily and overall volumes are much lower.

The lag on production means that shortages are being felt now and are likely to become more pronounced in early 2022.

As a result of this shortage some specialist orders are not being fulfilled until 2023. The typical delivery date for an HGV has increased from 12 to 26 weeks. However, the SMMT believe this will stabilise and return to normal, with no medium- or long-term impact. They envisage it will take 12 months to correct so some time during 2023.

SMMT also reported that manufacturers were now looking at sourcing semiconductors from alternative providers, including those not previously focused on the automotive sector

Conversations with Volkswagen Van Centre Greater Manchester, 2021:

VW's most popular van model, the Transporter, is produced at the company's German-based plant and brought over to the UK. Transporters are already sold out for 2022, meaning new customers will now need to wait until Q1 2023 for their van.

Several issues underpin the shortage in vans. The most pressing issue is the shortage in semi-conductors.

Another factor is the 70% increase in the price of steel which has resulted in price rises for customers. Together, these issues have led to four price increases in the last 12 months. As a result, Volkswagen has ceased to provide its usual price guarantees for all new sales and customers have now lost price protection.

The second-hand market is performing strongly. Customers are reselling their vans now more than they ever have before and prices are the highest they have ever been

- 5.11 Reports from industry press also state that supply issues could last until 2023. Speaking at the IAA Munich auto show in September 2021 Daimler CEO Ola Kallenius said soaring demand for semiconductors means the auto industry could struggle to source enough of them throughout next year and into 2023, though the shortage should be less severe by then. BMW CEO Oliver Zipse said: "I expect that the general tightness of the supply chains will continue in the next six-to-12 months."
- 5.12 Numerous Ford models are affected and Ford's plant in Turkey, where the Transit van is built, was also closed this summer. The manufacturer is now shipping some models with missing features as noted previously in this report.
- 5.13 Other reports are stating six to nine month lead times for ubiquitous models such as the Ford Transits.
- 5.14 Information from the wider commercial sector was also provided by the Road Haulage Association (RHA) that reflected some of the issues their members were experiencing. Whilst this relates to the heavy goods vehicle sector, it does reflect a similar picture in terms of supply side issues within the automotive market.

Selected extracts from RHA member correspondence:

(1) We have currently stopped pricing & closed our order books for the short term due to the increased difficulty in predicting pricing close to 12 months down the line.

(2) We had requested rate from our commercial supplier for a tractor unit and 2 trailers on long term rental, but we were quickly met with a response of "unfortunately this isn't something we are going to be able to provide in time for next year". I have also spoken with {anonymous} used and could be supplied a used tractor unit, but that option is very limited to what vehicles are coming in off contract. as for new purchase we were told by a sales rep at {anonymous} we would be looking at 2023 deliver times now.

(3) We predominantly run {anonymous} HGVs. Having had a verbal conversation with the dealer about pricing and lead times, we have been advised by them that for any orders placed within the next few weeks we will be looking at quarter 1 of 2023 for delivery of a chassis to the dealer. We then have to factor in further time for crane installation and truck body build etc. Realistically if this remains the case, we will end up not getting new trucks until the end of Quarter 2 of 2023, almost 2 years from now! They have also said that pricing quoted is not guaranteed and is subject to fluctuation due to pricing of raw materials changing between now and the vehicle being built and supplied.

(4) {anonymous} have closed their order books last Friday untill 2023, they are concentrating on back orders and are waiting for their suppliers to provide software for their hardware, i.e computers to operate the gearboxes etc etc. They have loads of incomplete trucks at {anonymous} airport awaiting cpu's for various tasks.

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6. Van Prices

New Vehicles

- 6.1 Van prices are a function both of the production and supply costs, combined with market demand versus available supply.
- 6.2 As a result of the constraints described previously, new vans are therefore expected to see their value rise more acutely as the semi-conductor crisis persists limiting supply, alongside the newfound shortages in other crucial resources such as rubber and metal, thus pushing up costs.²⁸
- 6.3 The rising costs of materials, caused in part by reduced production associated with Covid are also affecting vehicle prices, with VW reporting that the cost of steel has risen significantly during 2021, causing them to raise prices. Steel prices have reduced in recent months but remain volatile.²⁹
- 6.4 For reasons of commercial sensitivity, it has not been possible to obtain reliable data on changes to prices paid for new vans during the period under review. Advertised prices may be obtainable but records on actual sale values are not available.

Used Vehicles

- 6.5 It was to be expected that the reduction in new vehicles entering the fleet in 2020/21 would also have a knock-on effect to the used van market as the natural turnover of vehicles is stalled, reducing supply at this stage as well. Given the ongoing demand, this would normally lead to increased prices and there is considerable evidence of this occurring as shown later in this section.
- 6.6 Used light commercial vehicle values rose during November according to BCA (www.bca.co.uk) as demand for vehicles to service the online and home delivery sector increased in the run-up to Christmas with average values increasing by 15% from the start of November. Average monthly values continue to be well ahead year-on-year, with November 2021 values up by 16.4% increase compared to the same month last year.
- 6.7 Stuart Pearson, COO at BCA UK, said: "The used LCV market remains exceptionally competitive and average selling values at BCA have consistently outperformed guide price expectations throughout 2021. The strong market that we've experienced reflects the ongoing economic shift supported by consume-driven online activity plus the well-documented challenges with new LCV supplies. In addition, and as we anticipated, we have seen demand increase in the final weeks of the year to meet the needs of the hub delivery, courier and final mile home delivery sectors."
- 6.8 Matthew Davock, director of commercial vehicles at Cox Automotive, believes the wholesale performance of the past 12 months will never be witnessed again, but warns that the early part of next year, at least, looks to continue similar trends.
- 6.9 He said the market is likely to reposition itself when stock shortages are resolved halfway through 2022. According to Davock, "the shortage in the supply of used Euro 6 vans and demand for vehicles that comply with emissions zones such as ULEZ, will

²⁸ Ibid

²⁹ Trading Economics Accessed 6th January 2022 https://trading.com/commodity/steel

impact the market for the next few months at least, affecting wholesale stock dynamics for at least the next three years".

- 6.10 Earlier in the year BCA reported that used van values remained stable in September, following a period of rapid growth, earlier in the year. That earlier growth was of the order of 25% based on a year on year comparison from September 2021.
- 6.11 The general picture is of considerable market volatility, most pronounced earlier in 2021 but still remaining to some extent as we enter 2022. Overall used light commercial vehicle price rises of at least 40% between the pre-pandemic market and late 2021 are not uncommon.
- 6.12 Commercial Fleet News reported in July 2021³⁰ reported significant increases in secondhand van prices including the example of a three-year-old medium-sized van, with 60,000 miles, being 58% higher at that time than it was at the start of 2020. The same report included data, from Cap HPI, which revealed that "the typical medium van was worth £7,550 18 months ago, but is now achieving an average selling price of £11,900 an increase of £4,350". The graphic from CAP HPI is reproduced as Figure 6-1.

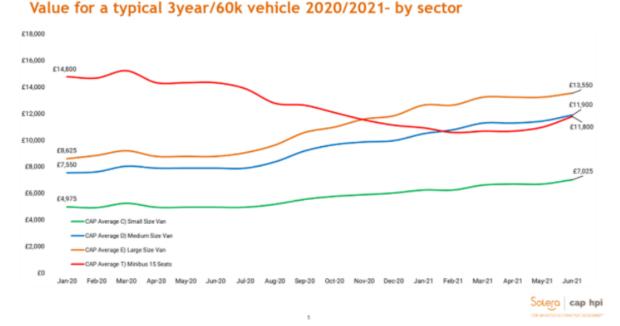


Figure 6-1 Data from CAP HPI on Used Van Price Trends (as of July 2021)

6.13 It should be noted that this reflects wholesale prices (which a dealer pays at places like auctions) as opposed to retail and therefore the dealer margin is not included. This data is collected by Cap HPI, which collects data on transactions in the automotive sector, recording each sale live as it is completed. Dealers are likely to pass on this increased cost to customers or chose to take a reduced margin. Alternatively where demand is high and additional funding is available related to CAZ scheme with associated deadlines, margins may be increased. There is therefore a difference in absolute value between this information and data elsewhere in this report.

³⁰ https://www.commercialfleet.org/news/van-news/2021/07/05/used-van-values-up-50-in-18-months-despite-mileage-and-ageincreasing Page 45



- 6.14 A review of online adverts shows the price of one of UK's most popular vans in 2022 was 13% higher in real terms (£19,495) than a model of the same age in early 2019 (£17,244).³¹ The values are presented in **Table 6-1**.
- 6.15 Specialist vans like dropsides, tippers and Lutons are achieving big values at auction due to the lack of availability on new conversions. Fleet managers are also reporting that they are running vans for longer, with 6-9 month extensions on leases or hiring additional rental vans rather than replacing them.₃₂

Туре	Manufacture Year	Sold Year	Age	Mileage	Price	Increase by
Ford Transit Custom	2016	2019	3	50,000	£17,244	-
Ford Transit Custom	2018	2022	3	50,000	£19,495	13%

Table 6-1 Example change in second-hand van prices between 2019 and 2022

Source: Autotrader UK



³¹ <u>https://www.carpricetracker.com/car/239343/Ford+Transit+Custom+2.2+TDCi+290+L1H1+Limited+Double+Cab-in-Van+6dr</u> ³² Automotive Management Accessed 4th January 2022 <u>https://www.am-online.com/news/market-insight/2021/10/15/supply-shortages-</u>

7. Impact of supply constraints and price rises on the GM CAP

Compliance in the shortest possible time

- Modelling carried out to support the decision to approve the GM CAP, carried out in 7.1 June 2021, demonstrated that the Plan is forecast to achieve compliance with legal limits of NO₂ concentrations by 2024, as per the Ministerial Direction, based on the proposals set out in the Policy³³ and the assumptions made at that time in terms of the age of the fleet and the cost of upgrade amongst other factors³⁴.
- 7.2 Sensitivity testing has been carried out to better understand the possible impact of uncertainty in the appraisal of the Plan. In particular, the aim is to understand whether variations in the assumptions underpinning the modelling, or the modelling methodology, would lead to a different decision or outcome, or conversely to provide additional confidence in the conclusions.
- 7.3 The evidence set out in this report has implications for two aspects of the sensitivity testing. Firstly, in terms of the rate of business-as-usual upgrades and the age of the fleet in the 'Do Minimum' scenario (in other words, how old the vehicle fleet would be without any action being taken by policy makers). Secondly, in terms of the impact of changes to the cost of upgrade on how vehicle owners may respond to the measures introduced by the GM CAP.

Rate of upgrade and the age of the fleet

- 7.4 The Do Minimum fleet mix as modelled at Consultation assumed a normal pattern of vehicle upgrades, including the purchase of new vehicles, trading of second-hand vehicles and the scrapping of the oldest vehicles from the fleet.
- 7.5 However, GM's analysis suggested that the impacts of the Covid 19 pandemic included:
 - Reduction in the number of new vehicles manufactured due to lockdowns:
 - Delay in transactions due to lockdown constraints; .
 - Reduction in vehicle upgrades due to direct economic impact of lockdown or wider recessionary impacts, or because vehicles are not being used as heavily as before; and therefore
 - The oldest vehicles remaining in the fleet for longer.
- 7.6 Analysis showed that these impacts vary between different vehicle types and business sectors with some more affected than others.
- 7.7 As a result, adjustments were made to the car, van and taxi fleets to reflect the emerging evidence that the normal pattern of vehicle upgrades has been affected for those fleets³⁵.
- 7.8 Although the evidence suggests that these adjustments are reasonable, uncertainty remained as to whether sales will 'catch up' to their pre-pandemic trajectory or indeed

³³ Appendix 1 - GM Clean Air Plan Policy following Consultation (ctfassets.net)

³⁴ DRAFT GM CAP Post-Covid Post-Consultation AQ Modelling Summary Report v1 (ctfassets.net)

³⁵ <u>Air Quality Modelling Summary Report Appendix D (ctfasse</u> Page 47

continue to remain below previously assumed levels as a result of the pandemic or other factors and therefore sensitivity testing relating to fleet age assumptions was carried out as follows:

- Fleet is older than modelled: HGV, vans and private cars all assumed to be one year older than pre-Covid Do Minimum, taxi to be two years older, no change assumed to Bus. This test showed increased concentrations sufficient to delay the year of compliance. The roads outside of the inner ring road are more sensitive to this test, because car and van emissions are more prevalent compared to buses. However, it is considered unlikely that the fleet age would be as old as this test assumes, given that changes have already been applied to the core to reflect Covid-19 related delays in vehicle upgrades. The most recent data from SMMT suggests that whilst vehicle sales have not caught up with prepandemic conditions, van and car sales have not been delayed to the extent of a full year.
- Fleet is as per the pre-Covid Do Minimum (the Consultation Option Do Minimum) as Covid-related changes prove to be transitory and fleet quickly reverts to trend, with the fleet tested as assumed in the Consultation Option Do Minimum. This test produced a reduction in concentrations, but with exceedances remaining in 2023 and therefore would not affect the decision to proceed with the GM CAP but demonstrates that there could be greater certainty of achieving compliance as forecast if vehicle sales recovered to their prepandemic position.
- 7.9 GM has used the national SMMT vehicle registrations to assess fleet impacts. The latest data on van registrations to end 2021 suggests that the assumptions with regards to vans remain valid, but given the supply and demand issues set out above, GM will need to keep the evidence under urgent review.
- 7.10 Monitoring of the on-road fleet will be undertaken throughout the lifetime of the Plan using ANPR data and can be compared with the quarterly/annual SMMT releases to assess whether the Plan is likely to be affected by changes to purchasing patterns other than those forecast.

Price of upgrade and behavioural responses to the GM CAP

- 7.11 In summer 2021, GM was concerned that prices could increase as a result of constraints in the availability of compliant vehicles, as set out above, or due to increased demand arising from sustained behavioural changes post-pandemic. For example, GM was aware that the rise in internet shopping during the initial lockdown periods led to increased demand for vans, with anecdotal evidence that vans temporarily released by construction firms were re-purposed for deliveries during lockdown. In summer 2021, GM noted that a sustained increase in van demand could place pressure on the van market and that media reports were suggesting that the price of second-hand vans may be rising. Since then, the evidence of price rises resulting from supply not being able to keep up with demand has strengthened, as set out in this report.
- 7.12 Sensitivity testing carried out in 2021 suggested that whilst HGV behavioural responses are relatively insensitive to vehicle price increases, for vans an increase of 8% in the price of vehicles (compared to the price as assumed in the modelling) could be sufficient to delay compliance by one year, all other things being equal. Page 48

- 7.13 This is because if van prices rise, more van owners are expected to stay-and-pay rather than upgrade their vehicle, and therefore the emissions reductions would be less than previously forecast.
- 7.14 The evidence suggests that currently price rises in excess of 8% are being experienced in the van market and therefore that, if these price rises were to be sustained to 2023, and all other things being equal, GM could face an increased risk in terms of achieving compliance by 2024.

Socio-economic impacts on vehicle owners

- 7.15 If, by June 2023, van owners have been unable to access an affordable compliant vehicle, they may reconsider how to respond to the scheme.
- 7.16 Van drivers/owners may look to pass the charge onto customers and keep their non-compliant vehicle. As discussed, the demand for those working in the construction/home improvement sector (tradespeople) in particular means that there are often long lead times for work to commence as skills gaps emerge and the price of materials rises.³⁶ In the context of higher prices and long waiting times, customers may be more willing to accept these charges, which are likely to represent a small proportion of the overall cost of the work. Those charging lower rates or in more competitive markets will be less able to pass on the cost to their customers. If realized, the impacts of this would be a reduction in the environmental benefits of the GM CAP and increased costs for consumers.
- 7.17 Vans in certain sectors often have low load factors (e.g. operate without a full load) and as such it is feasible that van drivers may switch to larger passenger cars, particularly estate or Multi-Purpose Vehicle (MPVs such as a Ford Galaxy) cars. Some parcel company business models have drivers using their own vehicles, usually cars and it is not uncommon for tradespeople to use larger estate cars if it suits their required tasks. As cars are not subject to any charges associated with GM CAP, this approach may become more attractive. Depending on the type of cars that businesses and drivers transition to (and their availability), this could reduce the environmental benefits of the scheme.
- 7.18 The Funding policy is designed to support the smallest businesses, sole traders and private owners to upgrade their vehicle. However, in the worst case scenario, if van owners cannot afford to upgrade their vehicle even with the funding available, and are not able to pass on the cost of upgrade to their customers, they may cease trading or leave the region.
- 7.19 The impacts of the pandemic and Britain leaving the EU have not been experienced equally across business sectors, with some experiencing major disruptions, costs and loss of business whilst others have been able to benefit from new opportunities created by new ways of working and living. GM's evidence already suggested that a number of vehicle owners were at risk of being placed in hardship as a result of the scheme and it is clear that rising vehicle prices risks worsening that position. However, better evidence is needed to understand the possible nature and extent of such impacts, and who is most at risk.

³⁶ PBC Today Accessed 5th January 2022 https://www.pbctod

8. Summary and Recommendations

Summary of current conditions in the van market

- 8.1 Pre-pandemic, there was significant growth in van mileage and van stock over a number of years and the expectation was that both growth trends would continue.
- 8.2 However, whilst the early phases of the pandemic and subsequent lockdowns and constraints in 2020 constrained demand, it appears that this effect was temporary and has been offset by growth in demand from some van-owning sectors.
- 8.3 The pandemic had a major impact on the number of new vans sold in the UK, initially due to the halting of production lines and local lockdowns around the world.
- 8.4 Whilst new van sales recovered to some extent, they are still not back to 2019 levels and so there is a substantial 'lost supply' that has not been recovered equating to 80,000 vehicles on a conservative assumption that 2019 levels had been maintained.
- 8.5 The global semiconductor shortage has also impacted the automotive industry and its effects are ongoing.
- 8.6 Britain leaving the EU may also have had an impact but it is not possible to separately identify that.
- 8.7 The industry is reporting significant supply issues with extended lead times for new orders.
- 8.8 It is anticipated that the introduction of clean air zones at particular locations in the UK will introduce some regional disparity in terms of the availability of certain vehicles and place additional demand pressure on the market in general.
- 8.9 Reliable data on the variation in the price of new vans as a consequence of the supply side issues discussed in Chapter 4 is not available.
- 8.10 There is substantial evidence of significant price increases in the second-hand van market the scale of those rises has a high degree of variability depending on the particular vehicle. The extent of the reported rise varies between 13% and almost 60%.
- 8.11 Overall, the evidence suggests that demand for new and second-hand vans remains strong, and therefore that the loss of supply caused by lockdowns in 2020 and more recently by the semi-conductor shortage is leading to price rises in the new and second-hand markets, and to long lead times for new vehicle orders.

Recommendations

- 8.12 The latest fleet surveys were carried out pre-pandemic in 2019. Given the volatility in the commercial and private vehicle markets, ANPR surveys/analysis should be carried out as soon as possible to quantify the on-the-road vehicle fleet in GM by vehicle type, age and compliance status.
- 8.13 Whilst there is strong evidence relating to the supply of new vans, there is less insight into the full extent of demand beyond the evidence of rising prices. A better understanding of demand would provide insight into the extent of the shortfall in the

market. Further consultation with manufacturers, traders and van owners would be informative.

- 8.14 There is a lack of robust national data on second-hand van transactions which is important in the context of forecasting and monitoring the impacts of the various clean air zones around the country. This data should be made available by Government.
- 8.15 There is a lack of robust national data about vehicle prices; this needs to be addressed by Government.
- 8.16 In addition, it is unclear as to how those affected will respond to the changing circumstances. Research was undertaken with van owners in 2019, followed by consultation activity in 2020, prior to issues described in this note becoming as pronounced as they are at present. Previous assumptions may need to be revisited, which would require engagement with those who operate non-compliant vans.
- 8.17 It appears that supply constraints and price increases may be more severe for those operating more unusual or specialist vehicles. More research and analysis is required to better understand the types of specialist vehicle operating in the LGV market and how these are being affected by current market circumstances.
- 8.18 It is apparent that there is strong demand for vans and that high prices are currently being tolerated without reducing demand for vehicles. This suggests that some sectors may be experiencing growth and stronger economic conditions. Nevertheless, it is also clear from previous evidence that rising prices will mean that, for some, it is increasingly unaffordable to upgrade their vehicle. Therefore, more work is required to better understand market conditions by van-owning sector, and to reassess how vulnerable different groups are to the impacts of the GM CAP.
- 8.19 In particular, GM and Government could consider revisiting analysis carried out previously on the socio-economic impacts of the GM CAP and also review any potential equalities issues that may emerge from changing market conditions.

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