

NCGM and Petit Forestier – Reducing the Environmental Impact of Deliveries to London’s West End

Background

The environmental impact of internal combustion engine (ICE) vehicles is increasingly seen as a problem, especially in dense urban areas such as Central London. These vehicles have an impact on air quality due to particulate matter (PM) and NO2 emissions, as well as using fossil fuels, increasing CO2 emissions. NCGM have partnered with Petit Forestier to help traders reduce their environmental impact in a cost-effective way.

Vans from New Covent Garden Market (NCGM) traders make daily deliveries into the West End of London, where many of their customers are located. Almost all these vans are ICE vehicles, contributing to this overall issue. This is something that all involved would like to address.

The approach to support with reducing the impact of deliveries is to **Reduce, Remode** and **Retime**:

- Reduce focusses on reducing the number of delivery trips being made (e.g. through consolidation).
- Remode looks at how they are made (e.g. moving from ICE to EV, from van to cargo bike etc).
- Retime is changing the time of day they are made (e.g. deliveries at periods when traffic is low will be faster and spend less time in traffic, reducing emissions).

NCGM were asked by landowners in the Covent Garden area and Westminster City Council, to work with the Covent Garden Market Authority (CGMA) and investigate whether there was scope to reduce the impact of deliveries being made from market into the Covent Garden area. This report summarises the result of that work.

Reduce

NCGM started by exploring the option of reducing the number of vehicles on the road. This looked at combining deliveries of several traders onto one vehicle, which would then make smaller visits. For example, a single vehicle might do all the deliveries from NCGM to South Covent Garden, another to North Covent Garden etc. This would reduce the number of vans going to each area, resulting in a reduction to both congestion and emissions.

To test this, NCGM accompanied delivery rounds for several traders to see the areas they covered and their approach to making deliveries. The conclusion was that this option would not result in a significant reduction in environmental impact.

The reason for this conclusion is that most traders have a delivery route for a full van that only covers a small area. An example area can be seen in Figure 1. These drops are in an area of 1.5km². Whilst the routes for each trader overlap and could be consolidated, there will not be a significant difference in impact, if four vans cover the whole area. There may be one or two locations where customers are located in a small area that could benefit from shared deliveries, but this would be because it reduces congestion at the kerbside rather than has an environmental impact. Our view is that it is not possible to consolidate the number of delivery trips into the area.

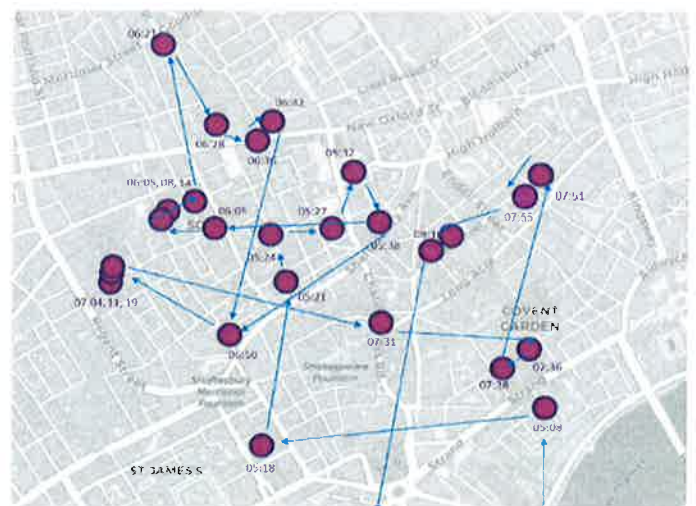


Figure 1

Remode

Remoding requires changing the way deliveries are made to reduce impact. In some supply chains, this can involve moving from delivery by van, to delivery by cargo bike and walking freight. This approach is frequently used by parcel carriers and works well when there is a small drop size and a high drop density. For example, single cargo bikes can carry up to 50 small parcels on a delivery run across an area of a few streets. However, the large drop size for NCGM customers, means that a cargo bike could probably do only one or two drops before having to return to the market, making this approach not effective. This is why a move from ICE vans to EV vans is the best option to reduce the environmental impact of deliveries, an option which NCGM are focusing on with the support from Petit Forestier.

Retiming

Another option for reducing impact is retiming deliveries. This is usually seen as a way of moving deliveries to a time of day when the road and kerbside is less congested. NCGM deliveries are usually made early morning as congestion is minimal. Drivers are skilled at making their deliveries in the most appropriate order taking into account timing and access restrictions but this does increase the distance covered and hence the emissions produced. Our observation is that around 50% of the deliveries are made when premises are still closed, either because the driver has keys or because there is an appropriate location in which to leave the goods. The remaining 50% are made when premises are open and this means extra milage and inefficiency, as drivers may have to wait until they are open, or have to return to a specific area later.

Conclusion

The daily flow of vans from NCGM to the West End unfortunately cannot be reduced through consolidation of deliveries and with retiming of deliveries being dependant on the customer. Moving from diesel to electric vans is the option NCGM have concluded will have the most positive environmental impact. Even though traders have expressed their reluctance to make the change without being hit with additional costs, Petit Forestier have a solution for this. Petit Forestier offer short, medium and long-term rentals with a full service offering that includes the most comprehensive range of refrigerated vehicles on the market. With 12 depots across the UK, providing 24/7/365 breakdown and maintenance support, they provide peace of mind that traders can fully focus on delivering high quality produce to their customers, without having to worry about additional costs.