Vans: why is going electric taking so long?

27 05 2021
T&E’s van campaign

1. Introduction
2. T&E’s van CO2 report
3. Our policy goals
4. Discussion / questions
Introduction

Where are we at?
- Vans are the fastest growing source of CO2 emissions in road transport
- Very low supply of electric vans

Why?
- Boom of home deliveries during the COVID-19 pandemic
- Vans account for a growing share of air pollution esp. in cities

Key objective: Accelerate the shift to ZEV to meet the 2050 decarbonisation objective
- by 2035 all new vans sold must be electric
- by 2030 half of new vans must be electric
COVID-19 impact on parcel delivery volumes

Source: T&E analysis, data from main delivery companies' annual reports

* La Poste and Geopost data compare H1 2019 with H1 2020; Poste Italiane and Bpost data compare 9M 2019 with 9M 2020; Royal Mail and GLS data compare March-September 2019 and March-September 2020; DHL data compare 2019 with preliminary results from full year 2020
A rising air pollution issue

- Van represent 14% of vehicle NOx in cities (JRC data)

- The average van emits almost twice the NOx of the average car

Why?

- Vans are mostly diesel (> 90%)

- Vans are heavier than cars
2. T&E van CO2 report

European van market unplugged: how weak regulation is failing electrification
Vans are the fastest growing source of emissions

- Vans accounted for 13% of road transport CO2 emissions in 2019 in the EU.
- 10% increase in CO2 over the past six years.
- Van emissions: 113.1 MtCO2 in 2019 vs 71.5 MtCO2 in 1990.
- Increase in van emissions is approx 3 times greater compared to cars or trucks (58% rather than ~20%, 1990 to 2018)

Data source: Member State reporting to the UNFCCC
Van sales are booming - but very little electric

- Van sales increased by 57% between 2012 and 2019.
- Van sales ‘only’ decreased by 15% in 2020 compared to 2019 and following the COVID-19 crisis.
- Heavy van sales (> 1,760 kg) now represent 69% of new van registrations (up from 56% in 2015)

Source: T&E analysis, 2012-2019 data from the EEA monitoring of CO2 emissions from vans, 2020 data from Dataforce

Class I < 1,305 kg, Class II between 1,305 and 1,760 kg and Class III > 1,760 kg
Van CO2 targets are too weak to reduce emissions

- New vans emissions have been stagnating since 2017.
- In contrast to cars, the 2020 CO2 target for vans did not lead to any emissions decrease.

Source: T&E analysis, 2012-2019 data from the EEA monitoring of CO2 emissions from vans, 2020 preliminary data from Dataforce
CO$_2$ standards are not driving the e-van market

- In 2020, only 2% of vans sold were electric compared to 11% of cars.
- Almost no e-vans in the heavy van category (0.7%)
- Companies build their own vehicles or are ordering from start-ups (e.g. Streetscooter from DHL)
2020 e-van sales split in selected countries

Source: T&E analysis, 2020 data from Dataforce
Van-makers had to do very little to reach the 2020 target

- Because heavier vans were sold (mass adjustment), the 2020 average target increases from 147 gCO2/km (on paper in the regulation) to 159 gCO2/km.
- Since 2017 most van-makers were already very close to their 2020 target.
3. Our policy goals
What would happen without real reform?

Current van CO2 targets:
- 15% reduction by 2025 (2021 baseline)
- 31% reduction by 2030

T&E’s modelling scenario under current regulation:
- 8% BEVs in 2025 and 17% in 2030 in central scenario
- Less than 2% BEV up to 2029 in high flexibility scenario
The challenge - tackled by a twin track approach

To meet 2050 climate neutrality:

- Half of new vans sold should be electric in 2030
- All vans should be electric in 2035

<table>
<thead>
<tr>
<th>Year</th>
<th>CO2 emission reduction</th>
<th>ZEV sales target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2025</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>2027</td>
<td>31%</td>
<td>25%</td>
</tr>
<tr>
<td>2030</td>
<td>60%</td>
<td>50%</td>
</tr>
<tr>
<td>2033</td>
<td>86%</td>
<td>80%</td>
</tr>
<tr>
<td>2035</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Why both CO2 reduction and ZEV sales targets?

For BNEF e-van sales could be between 46% (techno-economic potential) and 73% (Green Deal compliant) in 2030.

Source: T&E modelling of current policies, and Bloomberg NEF forecasts from *Hitting the EV inflection point*, 2021
E-vans v. diesel: what about costs?

Small e-vans are already cost-competitive on a TCO basis.

TCO parity for medium and large vans will be reached in 2022 and 2023.

Upfront purchase cost parity for medium and large vans will be reached in 2025 and 2026 according to BNEF.

---

Through cooperations between Voltia and three European leasing companies, customers can use the electric van Nissan e-NV200 XL Voltia for less than 550 euros per month in leasing.

Voltia says that this rate “is a result of an innovative approach to residual values, in combination with a longer lease period and low maintenance costs, reflecting the specific benefits of an EV”. Voltia has not mentioned the names of the leasing companies in their announcement of the offer, which includes electricity, insurance and maintenance, with slight variations depending on vehicle configuration and country-specific electric vehicle subsidies.
EU regulation doesn’t match city ambition

- Emission zones are the single most important driver of e-van sales (also according to van-makers)

- **EU reform is vital to make the ambitions of cities a reality** - there is nowhere near enough e-van supply to meet cities’ goals
What does the EU’s Sustainable Investment say?

- From **2026** only ZE vans qualify as sustainable under the EU Sustainable Investment Taxonomy.

- In other words, one arm of the Commission is clear that only zero emission vans are 'sustainable' from 2026.
4. Questions/Discussion
Thank you!