City of Amsterdam
Privileges for operators of electric freight vehicles

Purpose

- Provide an overview of incentives granted to logistics companies using Electric Freight Vehicles (EFVs) by the City of Amsterdam, and an evaluation of their effect on operations over a period of six months

Evaluation

- Reduced walking distance for drivers to make the deliveries saved on average between 15 and 45 minutes per vehicle per day, and increased the number of drops by up to five per hour
- Proximity to destination led to reduced driving time, faster (un)loading and an increased number of deliveries

Conclusion

- Reduction in time for operations leads to cheaper and more efficient deliveries, and a reduction in costs for the shippers
- Parking privileges lead to a reduction in stress for the drivers and higher productivity

Purpose

As a partner in the FREVUE project, the City of Amsterdam has been actively supporting the uptake of electric freight vehicles (EFVs), using different incentives, from purchase subsidies to encouraging zero emission deliveries in the procurement of its own office supplies.

Among the most effective actions are operational incentives for freight companies using EFVs in the city centre. These incentives aim at contributing to a positive business case for logistics companies using zero emission vehicles. From March 2015 to April 2017, the City of Amsterdam granted traffic regulation exemptions to seven logistics operators using EFVs, for both vans and trucks.

This factsheet provides an overview of these privileges and an evaluation of the effects on operations after a period of six months. The evaluation was carried out by TNO, the research partner responsible for the economic analysis under the FREVUE project.

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Implementation

From March 2015, approximately 20 vehicles from seven companies were exempted from parking prohibitions in tailored designated areas. These exemptions allow electric freight vehicles to (un)load directly to the pavement, to operate outside the time access windows and to enter certain pedestrian zones.

The areas were defined based on participants' preference and traffic situation, and the logistics operators could ask for exemptions specific to their business. As a result, the number of exemptions provided varied by participating operators, ranging from three to 28.

Evaluation

The logistics operators that were granted exemptions were interviewed about the experience after a period of six months. They were asked about the perceived effects of privileges on their daily operations, both in quantitative (time and money) and qualitative terms.

Quantitative results: time and money

Five out of seven operators reported time savings:

- **Less walking distance** from vehicle to delivery address for the driver as a result of drivers being able to park their vehicles closer to the delivery addresses. This saved on average between 15 and 45 minutes per driver per day. As the time per stop was shorter, with vehicles spending less time in the city centre, this led to **lower labour costs per day**.

Depending on the route and the specific details of a day (e.g. size of deliveries, addresses to be visited) operators could use the time saved to make **4 to 5 additional drops per hour** compared to a conventional diesel vehicle with no exemptions granted.

- **Decreased unloading time** with average savings of 4 to 5 minutes per stop. This meant that on average the operator saved 25 to 30 minutes per day. As a result, logistics operations were to some extent **cheaper for the shipper**

- **Less driving time and distance spent finding parking,** leading to an average of **five to six additional stops per day** than with a conventional vehicle for which no exemptions where granted.

In brief

Reduced walking distance and decreased unloading time results in:

- ✓ Additional drops per hour
- ✓ Lower labour costs per day
- ✓ Cheaper operations for shippers

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Qualitative results: less stress and better performance

Several operators reported other direct effects of the exemptions on their operations:

- **Decrease in stress** for the drivers, which led to **higher productivity**, i.e. fewer mistakes. The drivers normally pay the fines for parking illegally themselves, and as a result hurry in making the deliveries when no legal parking is available. Without the anxiety of receiving fines, they were able to deliver a better service to the receiving clients, resulting in fewer mistakes.

During the trial, the number of fines as well as discussions with enforcement officers decreased considerably.

- **Fewer aggressive behaviour incidents** by other traffic participants as drivers did not have to park illegally to carry out their job. Aggressive and honking passenger cars result in delivery men being in a hurry and less receiver-friendly.

In brief

Privileges result in:

- ✓ Less stress
- ✓ More accurate service
- ✓ Fewer fines
- ✓ Less aggressive behaviour from the public

Conclusion

Operators

Overall, most of the interviewed operators gave a positive feedback on the privileges, due to the operational benefits perceived. Their favourable response was also influenced by the enthusiasm reported by the drivers: less stress, fewer confrontations with the general public and enforcement officers, fewer fines, and less time pressure resulted in a more pleasant working environment. In one case, this also led to a more efficient performance, as the operator experienced fewer complaints from receivers due to mistakes or incomplete deliveries.

City of Amsterdam

- With this pilot, the City of Amsterdam wanted to test the potential benefits of traffic regulation exemptions for logistic operators, and the resulting effects on the business case for electric vehicles. Can exemptions be an important incentive for companies to go electric?
- The pilot also tested potential negative effects of the exemptions on road safety. While there were no negative effects reported, interviews with local businesses suggested that the exemptions brought a positive perception of the effects of electric vehicles on air quality and noise levels in the areas interested by the trial.

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- The City of Amsterdam is very pleased with the outcome of the pilot. As a result, they are currently working on **broadening the pilot to the whole city**, and at the same time ensuring a stricter enforcement to prevent conventional vehicles parking at the exempted locations.

Recommendations

In addition to the direct effects of the exemptions on the operations, the companies that benefitted from the privileges provided their feedback on how the City of Amsterdam could support their business case further.

These are some of the ideas that emerged:

- **Wider time-windows**

The current delivery time windows in Amsterdam, based on regulations and shop opening hours, are rather short, reducing the operating time to as little as one hour. As a result, operators employ several vehicles to carry out all the deliveries, with more than one man per vehicle. A wider time window would reduce the vehicles on the streets as well as staff costs.

- **The use of the tram-lanes**

The operators agree that the use of tram lanes would save time, due to usual traffic jams on car lanes.

- **Stricter enforcement**

Stricter enforcement of fines would prevent conventional vehicles to park at the exempted locations, as well as stop passenger cars to stop at (un)loading bays, making the exemptions more valuable. Therefore the use of electric vehicles for freight would be further encouraged.

- **Longer time (than one year) for exemptions**

All operators agreed that an extension of the privileges would be beneficial, not only for the positive results observed, but also because it would lead to long-term agreements with the receivers, making the deliveries more efficient.

- **More areas where exemptions can apply**

Exemptions should be applied beyond the city centre.

Further information:

Report: Intermediate evaluation logistics effects policy privileges in Amsterdam for Electric Freight Vehicles http://bit.ly/2lyfRpi

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