

Real estate with EV charging to command a premium post-2030

Electric transport growth is anticipated to accelerate after 2030 suggesting that demand for charging infrastructure at logistics sites will also increase. But the extent of this demand will vary among logistics sites. This creates financial opportunities, especially for landlords in strategic locations who are well prepared



Policies will accelerate growth of electric transport after 2030

Due to future expected policies at the EU and national level (a mix of pricing policies, stricter emission and reporting standards and subsidies), electric transport will increasingly become the most financially attractive option or will simply be mandated. We expect an acceleration of electric transport growth after 2030. This will subsequently increase demand for charging infrastructure at logistics properties.

Innovation will boost electric transport

In addition to the effect of expected policies, technological developments will continue to facilitate the electrification of commercial road transport. Take for example the range of new electric trucks, which will be around 500km next year, compared to around 100km in previous years. Looking

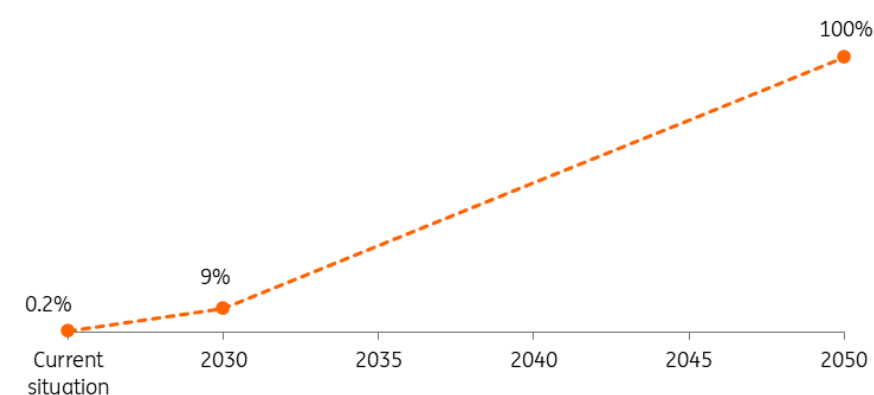
ahead, the range is expected to increase further.

Share of electric transport still small

The current share of electric commercial vehicles in the total fleet is still small, although the trend is positive. In the European Union currently, about 1.2% of delivery vans (lighter than 3.5 tons) and just 0.2% of trucks (heavier than 3.5 tons) are battery-electric. But the share of e-trucks in new sales [is about to step up in 2025](#), with the introduction of new CO2 regulations coming into force for manufacturers.

Acceleration of net-zero transition needed to meet climate targets

Current and targeted shares of zero-emission trucks in total European fleet



Source: EAFA, ACEA, ING research

Growth of electric transport to accelerate after 2030

Before 2030, the number of zero-emission trucks is expected to increase to around 7-10% of the total fleet in the EU. After that, growth is expected to accelerate significantly, with a reduction target of 65% for new trucks in 2035 and 90% in 2040. Ultimately the zero-emission fleet will have to meet the climate goal of 100% zero-emission transport by 2050. Most of these vehicles are expected to be battery-electric trucks, with only a small portion (possibly up to 10%) ultimately being hydrogen-electric vehicles.

Charging on own sites will eventually replace refuelling at the pump

Ultimately, charging electric vehicles will replace the traditional refuelling of diesel vehicles at the pump. In this new situation, companies will want to charge their vehicles as much as possible at logistics properties that they own or lease, rather than at publicly accessible charging stations, because:

- **Lower tariffs per kWh:** charging at public infrastructure is relatively more expensive than charging commercial vehicles on private property (owned or leased). That is because providers of public charging stations add a surcharge on top of the cost per kWh for the use of the infrastructure to recoup the initial investment costs (for the charging stations, land

costs, etc.). Additionally, in many countries, large corporate consumers benefit from the relatively lower electricity prices that apply to them.

- **Time savings:** charging on private property will limit the extra time companies spend on charging electric vehicles because this allows for more efficient and controlled charging processes and thus reduces employee downtime and limits any extra personnel costs. Battery charging will definitely take more time than filling up the tanks of commercial vehicles at a petrol station. But charging options on private property mean that charging can be integrated with other logistical processes on the site and saves drivers the time to drive to an external charging location. For vehicles that are already stationary on the site at night, it is efficient to charge them during those hours. The above can translate into significant time and cost savings since personnel costs account for about 50% of the total operational costs of transport companies.
- **Greater control over energy costs:** charging vehicles on private property increases companies' control over the availability and cost of electricity. Electricity generation and/or storage at logistics sites provides companies opportunities to lower the costs per kWh compared to the central power grid and lower the cost per kilometre driven. And in the case of a dynamic electricity contract, companies can shift their electricity consumption as much as possible to times when the kWh price is lower.

Majority of charging needs at parking locations

In the future, charging demand will be higher at logistics sites with parking spaces for commercial vehicles after working hours. In these cases, commercial vehicles will naturally charge overnight at those locations. However, stationary vehicles may well be parked in external locations. Take for example retailers who have fully outsourced their transport activities to partners. These partners generally have separate depots to park their trucks overnight, where they will charge their vehicles. This will lower the charging demand at the logistics sites where these vehicles operate. In addition, in the Netherlands, delivery vans regularly spend the night in the driver's residential area.

Future charging demand unevenly distributed between locations

Aside from the presence of a parking location for commercial vehicles, there will be other factors at logistics sites that influence charging demand. As a consequence, the earning potential of charging stations for property owners will vary per site. Expected earnings will be lower for locations with lower future charging demand. For landlords, it is therefore important to make a good estimate of the future charging needs at their logistics sites so that they can align their investments in charging infrastructure accordingly.

Various factors influence the charging demand at logistics sites

Example of a logistics site with relatively high charging demand

-
- High amount of heavy trucks loading and unloading on the site
 - High demand for overnight on-site charging of commercial vehicles
 - High demand for interim charging of commercial vehicles on site during the day
 - High demand from surrounding companies to charge vehicles on site
-

Source: Rijksoverheid, Panteia, analysis by ING research

Added value of logistics real estate with charging options will increase

The expected growth of electric commercial vehicles will increase the value of logistics real estate with charging options. By offering charging options that match the needs of the logistics site, the owners of these locations can increase their returns. At this point, the extra value of charging infrastructure at logistics sites is not yet reflected in logistics real estate prices. The current small share of electric commercial vehicles is an important explanation.

Looking forward, tenants with an electric fleet will be willing to pay higher rents for logistics sites with charging options for two reasons:

- **Cost savings:** the costs of charging electric vehicles on own premises are lower than the costs of charging at public charging stations. The cost difference between the two will increase tenants' willingness to pay for locations with charging options;
- **Lower operational risks:** the ability to charge commercial vehicles on own premises reduces operational risks. It enables logistics companies to charge their vehicles where and when they want, which contributes to the reliability of their service delivery.

Investors will be willing to pay more for logistics real estate with charging options too:

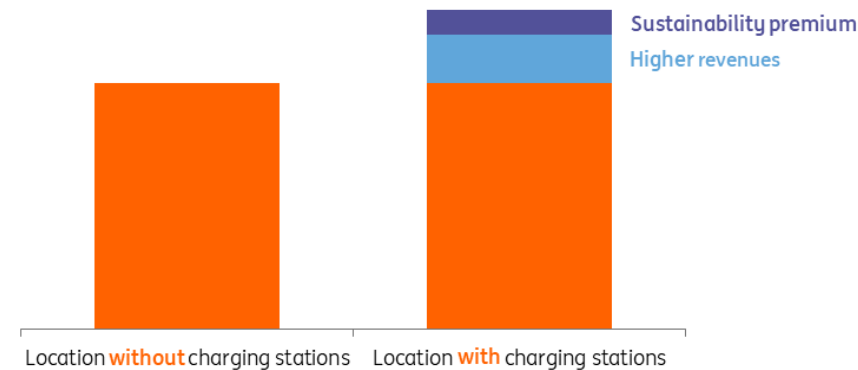
- **Higher expected returns:** higher rents and lower vacancy risks increase expected income from logistics properties with charging options;
- **Helps to meet sustainability standards:** offering charging facilities contributes to the transition to a zero-emission economy. Once the availability of charging options becomes an explicit factor in the sustainability standards of real estate investors, this will increase their willingness to pay for logistics real estate with charging options.

The lower the costs per kWh, the higher the added value

Landlords that are able to offer a lower price per kWh for charging commercial vehicles – via energy generation, storage and/or smart charging - will capture higher value increases. Currently, the costs of fuel expenses in the transport sector amount to around 20% of the total operational costs. By renting sites with lower charging costs, transport companies can offer more competitive rates and strengthen their market position. These cost savings will partly translate into higher rental costs for the specific location, increasing the value of the logistics property. Property owners that are able to offer lower costs per kWh, are therefore expected to capture expected returns.

Value of logistics real estate with charging options expected to increase

Illustration of the future value of logistics real estate



Source: ING research

Need for landlords to consider investments in charging options still low

Right now, the urgency for property owners to consider investing in charging options is still relatively low. Demand is still small, and pioneers in the electrification of transport may decide to invest in charging infrastructure on rented sites themselves, with the landlord's permission. This is for example the case in the Netherlands. In this way, tenants can act faster than if they were to push the landlord to make these investments.

Companies that decide to do so, need to have sufficient financial resources to make this choice. We also expect that the required investments in charging infrastructure are relatively limited in these cases. This matches with the current focus of market players on the electrification of delivery vans. Compared to the electrification of delivery vans, the electrification of trucks will require:

- Much higher investments in grid reinforcement;
- Much more expensive fast chargers (150-350kW or more).

Investment in charging options will fall on property owner

Looking ahead, investments in charging infrastructure at logistics sites will mainly fall on the landlord. Investments in solar panels, (substantial) investments in a larger grid connection and charging solutions will generally increase the property value. Eventually, the property owner (and not the tenant) will reap the benefits. Tenants will therefore be reluctant to make the investments themselves. This will apply to a greater extent to tenants with shorter remaining lease terms and for instance, with higher required investment costs.

In addition, under current laws, charging stations are legally considered part of the real estate. Tenants that invest in charging infrastructure themselves thus face the risk that the legal owner of the location automatically becomes the owner of the charging stations - unless the tenant and landlord formally agree otherwise.

What will drive property owners' profits from higher charging demand at logistics sites?

We earlier emphasised that in the future, charging demand at logistics sites will differ depending on the location. This is why property owners need to explore the expected charging demand of a location before investing in charging infrastructure. The earning potential from charging stations will logically be higher at locations with higher demand. Additionally, three criteria must be met to financially benefit from on-site charging stations at logistics sites.

Three pre-conditions: grid capacity, space and demand

On the supply side, sufficient grid capacity and spare space at logistic sites are needed to offer on-site charging stations and generate electricity. On the demand side, the occupancy rate of charging stations needs to be high enough to cover the initial investment costs.

1. **Available grid capacity on the site:** Charging electric commercial vehicles will regularly require a heavier grid connection. The landlord or tenant (with the landlord's permission) of the property must apply for this with the grid operator. Due to the [grid congestion in Europe](#), it can take up to [10 years](#) in some regions (this is for example the case in some regions in the Netherlands), before the grid operator can carry out the requested work. The influence of landlords and tenants on this issue of grid connection is limited, creating an advantage for owners of logistics sites that applied for grid reinforcement a long time ago, or where the contracted grid capacity is substantially higher than the current consumption.
2. **Available space for charging infrastructure and decentralised generation:** The availability of sufficient space is needed to offer attractive charging options at logistic sites. Space is first needed to create charging stations and parking spaces for stationary vehicles, but also for energy generation and storage. However, so far, it has been common to maximise the number of square metres of built-up land in new developments, because of the positive effect on rental income. The availability of space is likely to be a bottleneck in some locations. Additionally, the roofs of distribution centres will not always have sufficient load-bearing capacity to support the extra weight of solar panels. In the Netherlands, this is the case for an estimated [one-third](#) of the roofs. Finally, insurers set requirements for the minimum distance between buildings and charging stations and batteries, for fire safety reasons and to reduce collision risks. In new developments, developers would therefore do well to take into account the future charging needs on the site in the design.
3. **Charging on sites with higher occupancy rates is more attractive:** A higher occupancy rate per charging station (number of hours a vehicle is connected to the charger) lowers the price per kWh. By lowering the price per kWh, property owners can increase the attractiveness of their location for charging commercial vehicles. A higher occupancy rate means that the initial investment costs of the charging infrastructure (purchase costs of charging stations and investments in grid reinforcement) are spread over a larger number of kWh. Estimates in the Netherlands show that the price per kWh at a (fast) charging station can be [more than halved](#) by increasing the occupancy rate.

The potential occupancy rate largely depends on the tenant's characteristics. Additionally, landlords at strategic locations may have opportunities to attract some of the charging demand from surrounding businesses. By offering (semi-)public charging plazas at these locations, the landlord can increase the occupancy rate. This is beneficial for the users of the

charging station (as it lowers the price per kWh) and for the landlord (as it increases the return on the charging station). The first mover advantage is important to note here: landlords who delay risk having surrounding businesses meet their charging needs elsewhere.

Earning potential of charging options is greatest for landlords at locations with sufficient grid capacity, space and charging demand

Conditions for logistics real estate owners to financially gain from on-site charging stations

Sufficient space for:



Charging infrastructure



Stationary vehicles



Solar panels



Energy storage

} Helps to reduce variable costs per kWh

Sufficient charging demand from:

- Tenant
- Surrounding companies

} Helps to reduce fixed* costs per kWh

Source: ING research

*Initial investment costs include investments in grid reinforcement and charging infrastructure

Timely preparation essential

In the short term, property owners have limited influence over grid capacity, available space, and occupancy rates. This leads to two important implications:

- Timely preparation can help property owners to anticipate future charging demand quickly;
- Property owners with more favourable starting positions (based on the above factors) will have a competitive advantage.

Author

Mirjam Bani

Sector Economist, Commercial Real Estate & Public Sector (Netherlands)

mirjam.bani@ing.com

Rico Luman

Senior Sector Economist, Transport and Logistics

Rico.Luman@ing.com

Disclaimer

This publication has been prepared by the Economic and Financial Analysis Division of ING Bank N.V. ("ING") solely for information purposes without regard to any particular user's investment objectives, financial situation, or means. *ING forms part of ING Group (being for this purpose ING Group N.V. and its subsidiary and affiliated companies)*. The information in the publication is not an investment recommendation and it is not investment, legal or tax advice or an offer or solicitation to purchase or sell any financial instrument. Reasonable care has been taken to ensure that this publication is not untrue or misleading when published, but ING does not represent that it is accurate or complete. ING does not accept any liability for any direct, indirect or consequential loss arising from any use of this publication. Unless otherwise stated, any views, forecasts, or estimates are solely those of the author(s), as of the date of the publication and are subject to change without notice.

The distribution of this publication may be restricted by law or regulation in different jurisdictions and persons into whose possession this publication comes should inform themselves about, and observe, such restrictions.

Copyright and database rights protection exists in this report and it may not be reproduced, distributed or published by any person for any purpose without the prior express consent of ING. All rights are reserved. ING Bank N.V. is authorised by the Dutch Central Bank and supervised by the European Central Bank (ECB), the Dutch Central Bank (DNB) and the Dutch Authority for the Financial Markets (AFM). ING Bank N.V. is incorporated in the Netherlands (Trade Register no. 33031431 Amsterdam). In the United Kingdom this information is approved and/or communicated by ING Bank N.V., London Branch. ING Bank N.V., London Branch is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. ING Bank N.V., London branch is registered in England (Registration number BR000341) at 8-10 Moorgate, London EC2 6DA. For US Investors: Any person wishing to discuss this report or effect transactions in any security discussed herein should contact ING Financial Markets LLC, which is a member of the NYSE, FINRA and SIPC and part of ING, and which has accepted responsibility for the distribution of this report in the United States under applicable requirements.

Additional information is available on request. For more information about ING Group, please visit www.ing.com.