A closer look with an expert
September 10, 2024

The electrification of heavy mobility, a key challenge in decarbonising road transport

The IAA Transportation exhibition will focus once again on mobility and transport at its next edition, to be held in Hanover, Germany, from 17 to 22 September 2024. To mark the occasion, ENGIE Vianeo, which will be present at this major event, aims to highlight the need for the heavy mobility sector to make a massive transition to e-mobility, similar to the surge in light electric vehicles. Let's take a closer look at the challenges and prospects of the electric heavy duty vehicle charging sector with Clémence Fischer, Managing Director of ENGIE Vianeo.

Why is there an urgent need to speed up the transition of heavy duty vehicles to electric mobility, and what are the obstacles?

While electric cars are now firmly established in the mobility sector, the transition of heavy duty vehicles to electric power is still an emerging trend. Yet heavy duty vehicles alone are responsible for almost 40% of transport-related CO_2 emissions. As such, facilitating the transition for heavy duty vehicles is vital if we are to meet the challenge of decarbonising transport. There is still, however, a fear among motorists concerning electric vehicle range, which becomes even more of an issue when it comes to long-distance hauliers. In the electric heavy duty vehicle charging market, we have to deal with the constraints associated with transporting goods and the specific regulations to which drivers are subject. In this sector, economic stakes are higher and journeys need to be carefully optimised. The charging offer has to be adapted to the sector's uses: certain deadlines have to be met, and charging times have to coincide with the mandatory breaks for drivers (i.e. 45 minutes), etc. While the technical barrier to electric heavy duty vehicle charging has been cleared, there is still a psychological hurdle to overcome in order to reassure users.

What is the current situation regarding heavy duty vehicles roaming charging?

As heavy duty vehicles consume far more energy than light vehicles, the challenge of electrifying them is both qualitative and quantitative. In terms of quality, very high-power charging station networks are required; in terms of quantity, the number of charging points needs to be increased while ensuring the maximum availability of charging stations. ENGIE

Vianeo is pioneering on-road electric charging infrastructure for heavy duty vehicles on major roads, in logistics zones and in certain cities.

Our fully dedicated electric heavy duty vehicles charging lane is the first network of its kind in France, consisting of five stations between Lyon and Paris on APRR motorway service areas, allowing two heavy duty vehicles to be charged simultaneously. The distinctive feature of this network is the charging output of up to 480 kW, which is a world first for motorways. The goal is now to replicate this lane on other motorway networks, as well as in logistics zones, thereby offering hauliers a reliable national network with ultra-fast charging at a frequency adapted to their routes.

In addition to its charging stations, ENGIE Vianeo is also facilitating the transition of heavy duty vehicle fleets by providing additional tools, in particular to help drivers locate charging stations via our website's heavy mobility page. A charging reservation system will also soon be available so that drivers can minimise waiting times at charging stations. By constructing multi-energy stations to meet the needs of current transport fleets, these vehicles will have access to several green energy vectors, which will also promote the transition.

How is heavy duty mobility perceived now that combustion-powered vehicles are at risk of being banned?

The threat applies to both light and heavy vehicles! Heavy duty vehicles are currently facing regulatory pressure, as the European Commission passed legislation in April 2024 setting very ambitious decarbonisation targets: emissions from heavy duty vehicles sold from 2030 onwards should be reduced by at least 45% compared with 2019, then by 65% in 2035 and 90% in 2040. In response, heavy duty vehicle manufacturers are gradually transitioning to electric vehicles, making it all the more necessary to ramp up the development of charging infrastructure. In addition, the Alternative Fuel Infrastructure Regulation (AFIR) took effect on 13 April 2024, setting a general target for the development of a regional network of charging points for both light and heavy vehicles. Under this regulation, charging stations suitable for heavy duty vehicles are to be installed on main roads as of 2028 and on secondary roads as of 2031.

A financial subsidy of up to €100,000 for the purchase of electric trucks (heavy duty vehicles, buses, coaches) will be made available in France. The installation of charging points may also receive a subsidy. At European level, electric trucks are granted a 50% reduction in road tolls by EU Member States. Motorway service areas have already been equipped on a large scale with fast charging stations for light vehicles following the mandatory introduction of such systems on 1 January 2023. These areas will gradually be extended to include dedicated charging points for heavy duty vehicles.

Join us at the IAA Transportation exhibition
From 16 to 22 September 2024

Stand F29 – Hall 13

With the attendance of:
Clémence Fischer, Managing Director of ENGIE Vianeo
Didier Liautaud, CEO of ENGIE Vianeo

Deutsche Messe AG (Hanover Fairground)
Hanovre, Germany

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About ENGIE Vianeo

ENGIE Vianeo is the ENGIE Group brand that provides day-to-day and long-term support for the development of electric mobility by investing in the public charging station networks that it operates. ENGIE Vianeo's ambition is to accelerate the transition to low-carbon mobility, with commitment, transparency and simplicity. Drawing on the ENGIE Group's cutting-edge expertise, ENGIE Vianeo supports local authorities, companies and transport operators in their decarbonisation efforts to enable all users to travel while limiting particulate and CO_2 emissions. More details: https://www.engie-vianeo.com/