einride

2024-02-23

Response to the consultation on subsidy for public charging infrastructure for heavy transport

Who we are:
Einride is a freight technology company pioneering a new era of road freight by building a sustainable, safe and smart end-to-end shipping solution. Founded in Sweden in 2016, Einride is expanding to the rest of Europe and the United States. Einride operates Europe's largest fleet of battery electric trucks - a fleet of both manned and autonomous electric trucks. Einride is present in Sweden, Norway, Germany, Belgium, Netherlands, the UK and the U.S.

General view:
Einride is positive about the proposed subsidy for public charging infrastructure for heavy transport. Heavy goods vehicles account for 11% of CO2 emissions in the Netherlands, and thus the rollout of battery electric heavy trucks and related charging infrastructure will play an important role in combating climate change.

About the subsidy:
Several European countries have implemented subsidy schemes targeting the construction of public charging infrastructure for heavy duty vehicles, which have significantly accelerated the uptake of battery electric trucks. In Sweden and Norway, companies can receive subsidies of up to 70-80% of the investment costs while in Austria companies can receive up to 40% of the investment costs in subsidies. Common for these subsidy programs is that they are all heavily oversubscribed and high in demand. This can partly be explained by subsidies that are large enough to make a real difference in the business case when building charging infrastructure for electric trucks. Thus, it is crucial to provide a large enough subsidy amount that will enable chargepoint operators to invest in charging infrastructure for electric trucks.

Einride is positive about the inclusion of energy storage in this subsidy scheme. Integrating a battery into charging stations will play a crucial role in accelerating the roll out of charging stations. By incorporating a battery storage system, it is possible to optimize the efficiency of charging infrastructure and build stations where there is not enough capacity initially. Firstly, a battery provides a reliable source of backup power, ensuring uninterrupted operation of the charging stations even during grid outages or fluctuations. This reliability is essential for maintaining a seamless charging experience for users and preventing any disruptions in service. Additionally, the use of a battery allows charging point operators to implement smart charging solutions, such as load balancing and demand response capabilities. These features enable management of energy consumption more efficiently, reducing peak demand charges and overall

operational costs. Furthermore, a battery storage system can facilitate the integration of renewable energy sources, such as solar or wind power, into the charging infrastructure. By storing excess energy generated during off-peak hours, it is possible to maximize the utilization of clean energy and minimize the carbon footprint.

In general, the technical requirements stated in the proposal are appropriate. Nevertheless, they would benefit from a slight adjustment. In the current proposal, the charging station must provide at least 1400 kW with every charging point providing minimum 200 kW with at least 2 charging points providing 350 kW. However, 1200 kW might be a more logical minimum limit since most chargers are 300, 400 or 600 kW. It will therefore be easier and more cost efficient to provide 1200 kW than 1400 kW. In addition, many transformation stations are 1250 kW, which also suggests that a 1200 kW minimum power per station might be a more suitable minimum limit.

The process of building charging infrastructure is often heavily impacted by unpredictable external factors, such as supplier lead times and network capacity, and it is therefore difficult to estimate the time needed for completion of the charging station. Thus, it is positive that the time of realization of the charging infrastructure is proposed to be two years which will allow for sufficient time, also taking into account unpredictable delays. In some markets, time of realization has been ranging from 6 - 12 months with limits on how many times an extension can be granted. This is in most cases too short of a time frame, especially when many factors are out of the applicant's control.

Einride has experience of applying and receiving subsidies across several European countries and some other aspects that should be considered are, for example, time of order placement. Allowing for order after submission of application enables faster completion time and thus faster rollout of electric trucks. If orders cannot be made until approval, the projects can take longer time to complete due to e.g. changed supplier lead times and price increases between time of application and time of approval. Thus, Einride would encourage the subsidy scheme to allow for orders as soon as the application is submitted. Another aspect is the application windows. Operational planning does not typically overlay short application windows. Continuous calls, on the other hand, allow for operator flexibility and a higher degree of confidence in utilization of charging infrastructure and thus a better business case. Thus, Einride would recommend the subsidy scheme to have longer calls or calls open until the budget is exhausted.

Einride, is one of the leading companies in electrifying heavy duty transports in Europe, are willing to contribute with our learnings and data also to the Dutch Authorities on

scaling the rollout of an heavy duty electrified road transport system in Europe, including Netherlands.