

The building blocks for an open market for EV charging infrastructure in the EU

ChargeUp Europe is publishing an *'open market building blocks'* series to highlight a number of areas where the principles of an open market model are not in place at present, and we believe policy intervention is needed.

This particular paper examines the issue of *fast charging concessions on highways and main traffic corridors and the need for coordinated, open and non-discriminatory concessions*. This paper can also act as guidance for the European Commission recommendations on planning and permitting processes on alternative fuels infrastructure, announced in the Sustainable and Smart Mobility Strategy.

A coordinated, open and non-discriminatory EU-wide approach to fast charging concessions on highways and main traffic corridors

To ensure the successful transition to electric mobility and promote a connected Europe, it is essential that a high-quality fast charging network is rolled out along highways across Member States. Today, EV infrastructure roll-out on highways is still in its infancy, and the policies and practices that underpin it lack EU wide coherence, causing a fragmented landscape across Member States, which hampers investment in this much needed infrastructure. While in some Member States, a cross-country fast charging network on highways is taking shape, in others it is completely absent.

In order to break the deadlock of inaction and under-investment in fast and high-performance charging in some areas of Europe a coherent policy approach is needed to:

1. Ensure that highway charging covers all user segments, from passenger cars and light commercial vehicles to heavy duty vehicles. The policies should be reviewed at set intervals over time.
2. Open up service areas for exploitation by charging businesses, and;
3. Ensure tenders are issued fairly, are non-discriminatory in design and open to new market players that meet clear quality criteria.

With the expected surge in demand for EVs, the required investment needs for a pan European charging ecosystem along (TEN-T) highways should be brought into focus so that a new competitive market will materialize.

On the one hand the EU should map out the fast charging needs as part of a comprehensive European charging infrastructure strategy based on the Member States' infrastructure requirements. At the same time, it should coordinate a coherent highway concession policy for fast charging stations across Member States to foster fair competition.

The revision of the AFID and TEN-T guidelines should provide the right policy frameworks to encourage private investment and set out the principles for Member States to develop site-allocation strategies for fast charging stations along highways and main traffic corridors. The organisation of open and non-discriminatory tender procedures is key in this regard.

Without this, the rapid rise of EV charging infrastructure in the coming years could be thwarted and is most likely to result in an uncoordinated approach leading to systemic inefficiencies, differing availability, varying quality of infrastructure and service levels across Member States, undermining the connectedness of Europe.

What specific EU-level action is needed?

The European Commission should provide guidance through the revision of the AFID and TEN-T guidelines, ensuring that highway concession procedures are in line with principles of EU competition law, by focusing on the following actions:

National Site allocation plans

- Require member states to identify locations where fast charging infrastructure should be developed through a national site allocation plan, starting with highways and high-traffic corridors.

Open, non-discriminatory procedures

- Put policies in place to guide the organization of public and competitive procurement processes, such as a tender procedures for fast charging concessions.
- Ensure that these public procurement processes are non-discriminatory and based on an open market model; these concessions should be accessible to all interested, relevant market parties, including SMEs and independent charging operators.
- In this regard, it is recommended that concessions for EV fast charging infrastructure are separated from other concessions at that location (e.g. petrol or hydrogen). The risk of bundled concessions, or of making EV charging infrastructure an obligatory service alongside other services or energy carriers will act as a barrier to entry for independent market parties. This reduces competition and ultimately affects the quality of service and price for consumers.
- Ensure that tenders value first and foremost the quality of the overall charging service proposed, and related value to the consumer, to ensure a long-term, high-quality pan European fast charging network.
- The tender procedure should ensure that all players have an equal opportunity to compete and that a qualitative, measured choice has been made for a given party in a fair and transparent manner.

Contract Duration

- Ensuring that the conditions set in the tender require a sound business case is crucial to ensuring that the tender is competitive in its design and attracts high quality bids from market participants. In this regard, **the most important criteria for the sustainability and quality of EV charging service is contract duration. At least 15 years is needed** to make a business case that covers losses over the initial years when EV charging demand across different vehicle segments is still relatively low.

Physical space

- Furthermore, **it is essential that concessions include physical space sufficient to build a full station that can be modularly scaled up as demand grows.** By the time a large proportion of the fleet becomes electric, busy service areas will need to cater for a capacity of 20-30 chargers (similar to large petrol stations today). In the new design of highway concession policy for fast charging, it is therefore important to already consider the long-term requirements of physical space and grid capacity required to meet the future demand.

Lessons from country experience

Members of ChargeUp Europe have years of experience with tender procedures and below we outline key principles and examples of how concession design impacts the EV fast charging market.

Whilst a lot of progress is being made within Member States towards the roll-out of fast charging infrastructure, the examples also illustrate that there is still improvement needed with regards to

highway concession policies, and that at the moment not all Member States are in line with the European position as laid out in the current text of the AFID (recital 30)¹.

Principle: Open dedicated fast charging tenders lead to high-quality service

One of the key principles for building an open and competitive market is ensuring the separation of EV fast charging infrastructure from other concessions at locations. Unbundling concessions ensures the ability of independent market parties to compete on an open and fair basis, because it allows EV infrastructure companies to bid for a tender independently. This boosts competition and ultimately improves quality of service and price for consumers.

A good example of this in practice is the 2018 tender from The Swiss Federal Roads Office (FEDRO). FEDRO organised a tender for 100 fast charging stations along Swiss highways. The sites for the charging stations will be contracted for a period of 30 years and come with a pre-installed grid connection, saving time in the realization process of the stations. The tender allocated 100 locations in 5 batches of 20 sites with locations directly along the motorway throughout Switzerland. The key locations were made available for charging infrastructure through a public tender procedure which is separated from the tender process for petrol stations and allocates an individual plot for fast charging on the service area. This allows new players to join the bid, increasing competition, and thereby investment in quality charging infrastructure on high traffic locations.

The separation of concessions is vital to:

- Increase the quality of the fast charging stations
- Allow companies to give a complete 'fast charging' experience to customers
- Open up the market to pure play fast charging operators.

Principle: Enable Open and competitive markets

Highway service areas act as vital locations to ensure vehicles and drivers can recharge and refuel. A key principle is the distinction between services, including EV charging and fuels such as petrol. To deliver the widest choice and most competitive offers to drivers, all interested market parties should have the right to bid for and provide services in these areas and the difference in services should be recognized and treated on an individual basis. To make this possible, public procurement processes for the right to provide fast charging should be open to new and existing parties.

This has been made possible in the Netherlands, where, in 2012, the government introduced a policy opening the service areas for exploitation for EV charging by any interested party. It organized a lottery system where any market party could express interest to exploit individual service areas of their choice. The selected party obtained the right to request a permit for a selected lot on the service area for 15 years. It allowed fast charging operators to set up their business on publicly owned service areas directly along the highway, next to existing petrol stations.

By treating the sale of electricity as a new market and opening it to new players, the result is that many parties, both incumbents and new players, can now compete in the public procurement process for the right to exploit part of a service area for fast charging. Most recently (November 2020), the highest court of the Netherlands ruled, based on EU competition law, that the exclusive issuing of permits for chargers as an additional service to restaurants and petrol stations along the highway is not allowed. Instead, in line with EU law a public procedures open to all interested parties must take place when granting these permits. The Netherlands now has Europe's most comprehensive network of fast charging stations directly along the highway with cross-country coverage.

The above principles and examples can act as excellent use-cases in helping authorities develop the most effective, open and competitive tender processes which can deliver for the market and for the driver.

¹ AFID Recital 30 - "In the development of infrastructure for electric vehicles, the interaction of that infrastructure with the electricity system, as well as the electricity policy of the Union, should be consistent with the principles established under Directive 2009/72/EC. The establishment and operation of recharging points for electric vehicles should be developed as a competitive market with open access to all parties interested in rolling-out or operating recharging infrastructures."

Principle: Avoid bundling

In some countries, the tenders include the exploitation of an entire service area, including all its services. The bundling of these services means that only market parties large enough to be able to execute all these services and deliver different forms of energy can participate. In practice, this means that only incumbents can participate in these tenders, while for independent EV infrastructure companies or other interested parties, there is no chance to participate.

Such a situation exists in Belgium, for example, where regional policy regulating highway service area concessions has led to a scenario where the concession holder is responsible for the overall service area quality of service, including the quality and speed of roll-out of charging infrastructure on their sites. As a result, there is less competition and no opportunity for the EV charging industry to build an independent business case in this new market for the sale of electricity at highway service areas.

Principle: Avoid conflicts of interest

There can also exist cases where concessions for highway service areas on the public highway system are awarded to a consortium that must include petrol, fast-charging and food services. This can create a system where a consortium needs to consist of companies with competing business models, leading to a potential conflict of interest.

Such a situation is seen in France on public (non-toll) highways. This favours large, established companies with more negotiation power who can potentially exclude high-quality EV charging partners who offer premium services. If EV charging companies are not able to find a consortium partner willing to accept the conditions needed for high-quality charging services, they are ultimately excluded from the market and successful consortiums can propose compromise solutions where not necessarily the best, or economically viable, EV charging solution is offered.

Conclusion

The principles outlined in this paper and the examples used aim to help authorities in moving to an open and non-discriminatory approach to fast charging concessions on highways and main traffic corridors across the EU. It is vital that tenders permit all market players to propose uncompromised fast-charging solutions that compete on their own merits. This will lead to contracts being awarded for the best EV-charging solutions, ultimately providing better service and value for customers across the EU.

About ChargeUp Europe

ChargeUp Europe is the industry association for the electric vehicle (EV) charging infrastructure sector. Our association works to accelerate the switch to zero emission mobility and ensure that EV drivers can enjoy a seamless charging experience with access to high quality, readily available charging infrastructure across Europe. As of today, our 11 member companies are active in all 27 EU Member States, the UK and EFTA, with over 250.000 charging points in the EU.

About AVERE

AVERE (The European Association for Electromobility) is an association that promotes electromobility and sustainable transport across Europe. AVERE's members include national associations and industry leaders supporting and encouraging the use of electric vehicles and electromobility across Europe. They have active members in 20 European countries, including some of the most successful EV countries like Norway, France, The Netherlands and Germany.

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