

Fostering Share&Charge through proper regulation

7th Conference on the Regulation of Infrastructures. New network structures:
decentralization, prosumers, and the role of online platforms

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ABSTRACT

This paper studies the emergence of Share&Charge, a German platform that organizes the sharing of charging stations for electric vehicles and the billing for the energy transactions. Share&Charge follows a peer-to-peer fashion, enabling direct transactions between charging station owners and electric vehicle (EV) drivers. On the demand side, the platform, with its interactive map, makes it possible for electric car or EV owners to find a charging station in the most suitable place, for instance at their place of work or where they live. On the offer side, it enables station operators (private individuals or companies) to rent their charging stations and eventually sell the electricity they produce. Charging tariffs within the charging station network are determined by the charging station owners themselves, but the platform provides indicative tariffs. Launched in September 2017, Share&Charge follows other initiatives, such as the French platforms Wattpop and ChargeMap, and the Swedish Elbnb, created in conjunction with the car brand Renault. All of these initiatives aim to make e-mobility a reality. Share&Charge's network has proved to be successful with German citizens, with more than 1200 charging stations currently in Germany.

Share&Charge adds certain elements of value at different stages of EV utilization. Firstly, this model allows for a co-financing of charging infrastructures by individuals and businesses in the private sector, by sharing the infrastructure costs between EV drivers. Besides the purchase price of EVs, the implementation of charging infrastructures, and their financing, represent a significant barrier to the rise of e-mobility. Share&Charge helps remove this obstacle, without adding a further burden on the governmental budget. In addition, this approach follows the "user pays principle", which engages in fair and effective financing. Secondly, the platform increases decentralized production value and facilitates its expansion. As renewable energy production is mostly decentralized, the platform further supports the development of electricity from renewable sources. It also helps to avoid grid congestion and energy loss, as well as to increase flexibility within the electricity market. Thirdly, data use enables the optimization of energy demand and supply, and the optimal determination of tariffs, although these remain facultative.

Models like Share&Charge could thus positively impact energy policy, by tackling several upcoming obstacles associated with the development of EVs and renewable energy production capacities. In particular, such models could foster the rise of EVs and facilitate the expansion of decentralized renewable electricity production. However, new forms of network structures (decentralized networks, sharing economy), and new actors (prosumers, platforms, etc.) also raise regulatory challenges.

This paper presents the legal issues associated with the development of disruptive models, by using the example of Share&Charge. In particular, we study the applicable tax framework to such a platform, assuming that as such, it would be introduced into the Belgian market. Finally, we propose a policy recommendation to foster the development of platforms such as Share&Charge.
