

## TOP TEN

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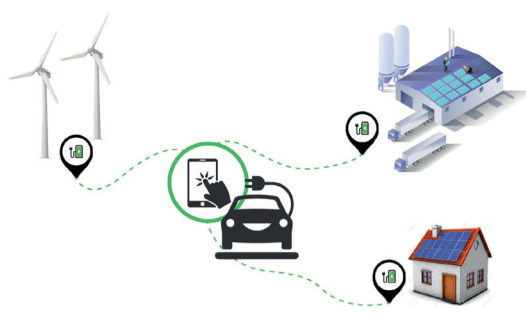
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# Drive green and local: a technical and regulatory solution

Envision a future in which large-scale adoption of electric vehicles (EVs) is sustained by an increasing share of renewable energy production, drivers identify the most suitable charging station with their smartphones and sell any excess electricity produced by the solar panels on their homes to other EVs drivers. Our idea aims at making this vision a reality. We provide a two-pronged solution that encompasses a technical platform and a regulatory component. The technical solution focuses on optimizing charging strategies for a fleet of EVs where significant amounts of electricity are generated by (distributed) renewable energy. Our proposed platform would encourage people to be proactive in the energy sector by connecting local energy producers directly to consumers. Secondly, it would help distribution system operators modulate efficiently the load by influencing EV charging behavior in real time. In addition, we provide a general regulatory framework for developing such a platform. This framework consists of a three-step approach that identifies: 1) The socio-technical framework in which a technology develops. 2) The features of such technology and the changes it brings to the socio-technical framework. 3) The possible policy response. The goal of this theoretical approach is to assist policy makers when building a framework for new technologies and it will be tested with the specific case of charger-sharing platforms. The purpose is not to provide concrete recommendations which pertain to political choice, but rather a tool for improving public policy with respect to new technologies.



## Key Characteristics

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