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**Feasibility of vehicle continuous charging in highways.**

**ABSTRACT**

This paper analyzes in a systemic way a taxonomy of technologies that allow “continuous charging” (ConCha) of vehicles while they circulate on highways. Once the menu of available technologies has been described, they are appraised following a multi-criteria method to select the most promising one. This happens to be the Indication Power Transfer system, also called OLEV for on-line electric vehicle, and already in laboratory implementation in Korea. After the description of the system a cost-benefit analysis is performed and applied to a highway in Barcelona, Spain. The conclusion is that the system is already feasible nowadays and it can be even more feasible in the near future, depending upon the vehicle technology cost and energy price.