Street lights: charging stations for electric cars

Light source for the streets, energy supply for electric vehicles: The street lights in Leipzig city center offer a good alternative for drivers of electric vehicles when it comes to charging their batteries. From street light straight to your car - research has been carried out into a business model that expands the urban energy supply and promotes electric mobility in Leipzig.

Urban dwellers with electric cars often have no parking space of their own where they can charge their vehicle. In Leipzig, street lights may soon provide the solution. Under the German government's electromobility showcase program, a viable business model for a public electric-vehicle charging infrastructure is to be developed in Leipzig, based on using street lights fitted with charging units. Researchers from the Fraunhofer Center for International Management and Knowledge Economy carried out a study in this area, using the Delphi method to obtain opinions from experts in successive written surveys to identify a consensus. About 80 interviews with experts revealed trends and scenarios that were validated by the project team and further developed into a business model for Stadtwerke Leipzig (public utility). In the future, this local energy provider is set to offer a conductive, that is cable-based, charging service for electric cars at city center street lights in Leipzig. The "Business Models: Engineering and Innovation" Unit of the Leipzig Fraunhofer Center will continue its research-based support of Stadtwerke Leipzig will during the implementation of the developed business model.

Duration: 12/2012 – 11/2015

Funding: In 2012 Federal Government initialized the showcase electro mobility program which is spread between the Federal Ministry for Business and Energy (BMWi), the Federal Ministry for Education and Research (BMBF), and the Federal Ministry for Transportation and Digital Infrastructure, as well as the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMUB).

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Electric vehicles are charged conductively from the street light. Conductive charging refers to charging using a physical connection, such as a cable or current collector. Inductive charging involves charging without the use of a physical connection.