Project

Effective promotion of electric taxis in the canton of Basel-Stadt



Interested in promoting the use of electric taxis, the Canton of Basel-Stadt recently commissioned EBP to assess the relevant economic and technological factors and to provide support for the implementation of a promotional campaign.

Transportation, a sector that is almost entirely dependent on fossil fuels, accounts for around one-third of Switzerland's total carbon emissions. Greater use of electric vehicles represents an important means of achieving a more sustainable, future-oriented transportation sector, provided that the vehicles in question are powered by clean energy and do lead to additional traffic volumes. In the interest of promoting greater use of electric vehicles in general, the Canton of Basel-Stadt has examined the option of providing incentives for the purchase and use of electric taxis.

Advantages of electric taxis

The use of electric taxis would appear to warrant special promotion for the following reasons: the use of taxis is high in densely populated areas; taxis are mostly outfitted with powerful engines; and city driving is characterized by suboptimal energy efficiency and high carbon emissions. In addition to this, electric taxis could help to raise public awareness of the issues involved because they tend to be marked and positioned to draw maximum attention. Moreover, the vehicle models that are used as taxis are perceived by the public as robust, durable, cost-effective and suitable for daily use.

Client

Canton of Basel-Stadt, Office of the Environment and Energy

Facts

Period	2016 - 2017
Project Country	Switzerland

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The role of EBP

By way of providing a sound basis for the promotional campaign, EBP examined both domestic and international best practices for the introduction of electric taxis and compared the total cost of ownership (TCO) for conventional and electric taxis while also accounting for various incentives such as free taxi-service permits, tax credits and other cash and non-cash incentives. This comparison revealed that the advantages of lower energy costs and reduced maintenance costs associated with electric taxis were to some extent balanced out by significantly higher purchase prices and lost time as a result of an as yet inadequate fast-charging infrastructure. In the end, our data indicated that electric taxis can only be operated cost-effectively in Basel if high-voltage, fast-charging stations are available at easily accessible locations.

The promotional measures

The Canton of Basel-Stadt ultimately decided in favor of introducing a promotional campaign for electric taxis. In April 2017, the city began work on the installation of new fast-charging infrastructure at convenient locations for taxi operators while at the same time offering them a rebate on the purchase of electric vehicles and vouchers that can be used at all fast-charging stations. Working together with Industrielle Werke Basel (IWB), EBP also organized a special forum to give interested taxi operators an opportunity to learn more about the campaign.