

Electromobility – Study on Electric Vehicle Charging Infrastructure in Basel



The demand for electric vehicles is on the rise, and in Basel the demand is increasing at an above-average rate. EBP has conducted a study on the expected demand for electric vehicle charging stations throughout the year 2030.

The demand for electric vehicles is on the rise throughout the world. In some regions such as Basel, this demand has grown disproportionately. Are energy suppliers and public agencies in Basel well prepared to keep up with the demand? The results of our study indicate that they are indeed prepared. Beyond the current trend, the demand for electric vehicle charging stations is expected to increase significantly from 2020 onwards. Interestingly enough, the primary focus of this demand is on home-based charging equipment for the owners of electric vehicles.

The results of our study indicate that the use of electric vehicles in the region of Basel can be expected to exceed the average for such vehicles in Switzerland by 30 percent. These developments have led the two Basel cantons to commission EBP and its partner Sustainserv to draft an estimate of the vehicle charging infrastructure that will be necessary for electric vehicles up to the year 2030.

Using complex models, we calculated the expected development of electric vehicle demand in each of the various municipalities in the Basel region, as well as the amount of electricity the new vehicles will need in the future. In addition to this, we also developed various future scenarios to generate data regarding the particular types of charging stations that will be in demand in the future, including home-based and work-based solutions as well as strategically located quick-loading

Client

Basel City Office of Environmental and Energy Affairs, Basel City Mobility Office, Basel Country Office of Environmental Protection and Energy, Basel Country Office of Civil Engineering, Regional energy providers IWB, EBL and EBM

Facts

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stations on the model of conventional petrol stations.

A geographical information system (GIS) was used to produce a visual representation of the geographical distribution of the necessary charging stations.

Our study shows that the demand for charging stations can be expected to increase significantly in the Basel region from 2020. While this demand can be expected to involve the installation of charging stations at work and at central locations, it will primarily focus on charging equipment that the owners of electric vehicles can use at home.