

Press Release

Zurich, September 27, 2021 – The Swiss startup «H2 Energy Solutions GmbH» founded this August intends to significantly contribute to the reduction of CO₂-emissions caused by road traffic by building a Switzerland-wide filling station infrastructure for fueling cars and trucks with hydrogen.

In Switzerland road traffic causes about 38% of the end energy consumed in Switzerland. Therefore, road traffic represents the largest energy consumer group, ahead of households and industry. Traffic covers its energy needs to a degree of 94% with oil products (gasoline, Diesel, airplane fuel). Vehicles run by combustion engines emit the greenhouse gas carbon dioxide (CO_2) and thereby influence our climate. In 2019 the CO_2 emissions came to a total of 14.7 million tons (without international air traffic). This was equivalent to 40% of the CO_2 -emissions of Switzerland. Between 1990 and 2019 the traffic-related CO_2 emissions increased by 2%.

The Swiss startup «H2 Energy Solutions GmbH» founded this August intends to significantly contribute to the reduction of CO_2 -emissions caused by road traffic by building a Switzerland-wide filling station infrastructure for fueling cars and trucks with hydrogen. Hydrogen contains as a fuel three times more energy than fuels made from fossil raw materials such as gasoline and Diesel. Precisely for the transport sector hydrogen has great potential because vehicles fueled with hydrogen emit only water vapor instead of CO_2 .

In Switzerland about 6 million vehicles are currently on the road, which fill up with traditional fuel at one of the approx. 3550 public gas stations. Currently, only a few hydrogen filling stations exist in this country, which also only cover a certain region in Switzerland. The Toyota car dealership intends to sell 1600 of their hydrogen model «Mirais Fuel Cell» in Switzerland. However, for this, a Switzerland-wide gas station network is needed for refuelling with hydrogen. Hydrogen, which is won from water using electrolysis, is compressed and can thereby be stored or transported.

While manufacturing hydrogen requires a lot of electricity, this electricity is, however, sustainable when the electricity is fed by renewable energies. In this context, one also speaks of «green hydrogen». The Swiss Material Testing and Research Institute (Empa) is already producing hydrogen and the necessary electricity is gained from photovoltaic cells. Hydrogen electric cars have a special and particularly stable tank, in which the compressed hydrogen is filled. This hydrogen is transformed in fuel cells into electric energy. During the transformation hydrogen and oxygen react. The only «waste product» of the power production is water. Fast refuelling is one of the many



advantages versus charging electric cars. For within only a few minutes the empty tank is filled.

Rolf Häusermann, the Managing Director of H2 Energy Solutions GmbH, has specialized during his career on renovating and refitting gas stations and can apply this experience in implementing the company strategy. The Managing Director born in Aargau lays out the business strategy as follows: «Our goal is to create a countrywide filling station infrastructure in Switzerland for refueling cars with hydrogen», says Häusermann. He is currently expecting a total market potential of 1500 customers; today's market volume, which is served by existing providers, is only about 20 customers. The big driver for hydrogen mobility lies in Häusermann's opinion mainly in the fact that in Switzerland as well as in Europe politics and industry solutions for reducing greenhouse gases will be pushed forward in the next few years and there will be a focus on road as well as air traffic.

About H2 Energy Solutions GmbH

H2 Energy Solutions was founded in 2021 with the intention of making a significant contribution towards the reduction of greenhouse gases in line with the federal energy strategy. H2 Energy Solutions GmbH is convinced that the future lies in developing hydrogen-powered cars. H2 Energy Solutions wants to build a hydrogen infrastructure in Switzerland by constructing hydrogen filling stations and hydrogen refuelling systems. H2 Energy Solutions will also focus on trade with technology and replacement parts as well as on servicing and maintaining hydrogen filling stations.

Rolf Häusermann, the founder of H2 Energy Solutions GmbH, is a trained electrician and has many years of experience as a service technician. He has a global perspective thanks to various assignments overseas in Skandinavia, Russia and Africa. In 1992 Häusermann established the Petrol-Service Euringer & Häusermann GmbH company and managed the company as its operative managing director. Among other projects, Petrol-Service Euringer & Häusermann GmbH successfully refitted 300 gas stations in Switzerland during the 1990s in accordance with the then new Swiss Clean Air Act.

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More Information: https://h2-energy-solutions.ch/