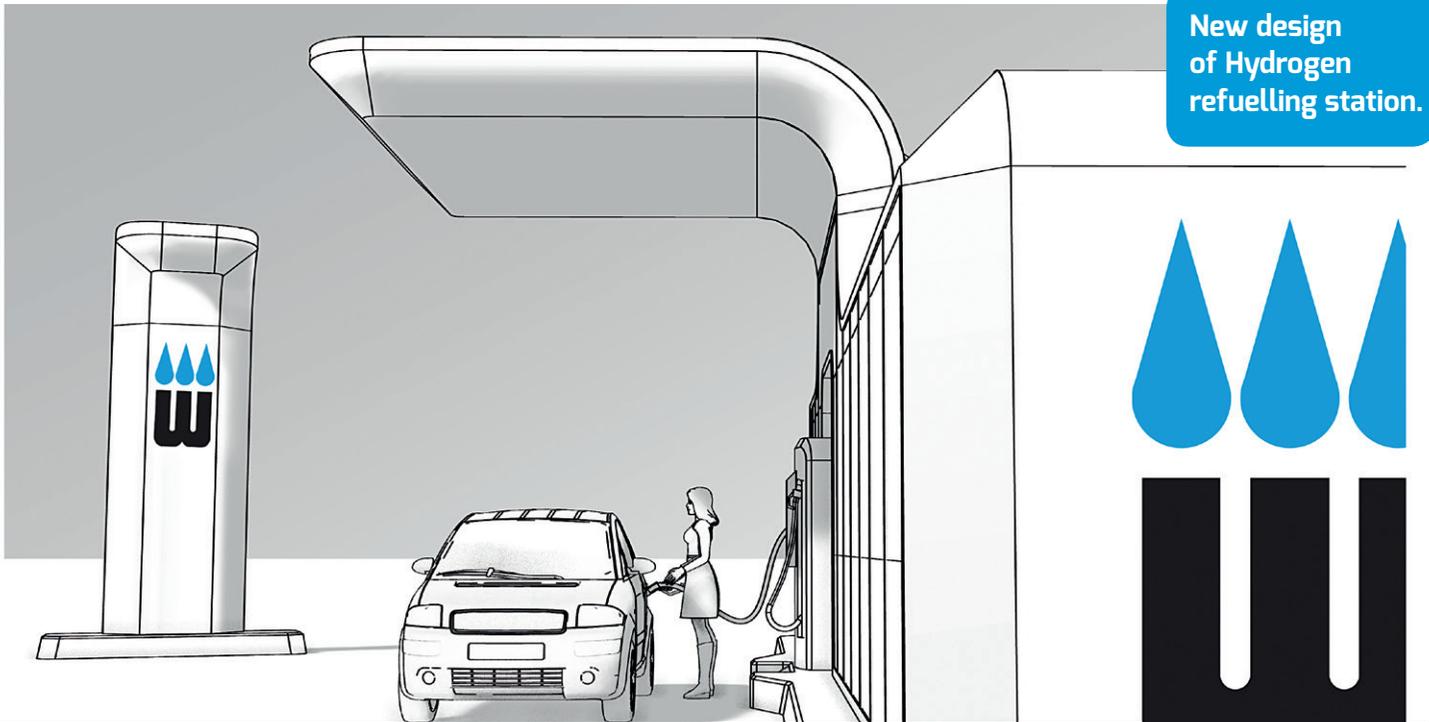


New design
of Hydrogen
refuelling station.



EMISSION-FREE MILEAGE

When we combine over hundred years of experience Woikoski Oy has in gases and the nowadays requirements for reducing car emissions, as end result we get a refuelling station for hydrogen cars. It takes only couple minutes to fill the tank, and you'll drive around 600km (approx. 370 miles) totally free of carbon dioxide emissions with it.

Hydrogen as a fuel in car, or any engine, causes no carbon dioxide emissions at all. "When we fill the fuel cell with clean hydrogen, we get electricity to power the engine and water vapor," CEO of Woikoski Oy, **Kalevi Korjala** explains.

Use of hydrogen as a green energy source has encouraged Woikoski to invest in hydrogen. Europe's biggest hydrogen plant electrolyzing water was commissioned in Kokkola last year. The method is known to Woikoski that produced hydrogen by electrolysis already over hundred years ago with it.

Hydrogen is also a by-product of chemical industry and it can be produced of natural gas, propane, bio gases and other substances with the methane compound CH_4 . When hydrogen is taken apart this compound, we also get carbon dioxide or carbon monoxide. But if we electrolyze the water molecules, we get only separated hydrogen and oxygen.

"Thus, water electrolysis is fully emission-free and the electricity needed to it can be produced by wind, solar or hydro power plants. Like this, both hydrogen production and use as energy source can be carbon-dioxide-free," Korjala stresses. He also reminds, that nowadays solutions make hydrogen also totally safe to use.

The EU invests much in using carbon-dioxide-free energies and there are plans to expand the network of a couple of dozen hydrogen refuelling stations. Alone in Germany, the goal is to build 400 new stations in the next ten years.

In Finland, Woikoski has already built two hydrogen refuelling stations. The company plans to build two new stations, one of

which in Göteborg, Sweden.

"We want to be strongly involved in developing hydrogen technology. We have already over a century of experience in hydrogen and other industrial gases, as well as high pressure gases for medical use and food production."

"In the past years, we have expanded our know-how in on-site solutions, in which the gas is made in factory premises and lead by pipes straight into the process," Korjala says.

He sees this trend also as a solution to future refuelling stations. Instead of transporting hydrogen to stations in containers, it is produced at the location.

"The greenest solution is then obviously the method using energy from solar panels or wind power plants to separate water into hydrogen and oxygen," Korjala says. | www.woikoski.fi | TEXT: MLS



It takes few minutes to fill a car's hydrogen tank, and with one full tank you can drive up to 600 kilometers (370 miles) without CO_2 emissions.