

Joint Press Release

HYDROGEN FUELING STATION TO OPEN IN THE BODENSEE AREA

- **Shell filling station in Geisingen will now service fuel cell vehicles**
- **Location extends the supply network for hydrogen fuel in the direction of Alpine countries**
- **The federal government fosters an investment of 700,000 euros via an Innovation Initiative**

Geisingen, 07 December, 2016 – Today the ninth hydrogen filling station in Baden-Württemberg was opened in Geisingen's Tuttlingen district. The station is another important step in Shell, Linde and H2 Mobility's efforts to expand the nationwide hydrogen infrastructure within the framework of the Clean Energy Partnership. Unimpeded travel for hydrogen-powered fuel cell vehicles on the way from Stuttgart to Switzerland and Austria is another advantage of the new location: this is also the direct connection to the Testing and Technology Center of Daimler AG in Immendingen, which is currently under construction.

Quiet and clean

The fuel cell car pulls into the fuelling station on Bodenseestrasse in Geisingen's district of Kirchen-Hausen with next to no noise emission. The new hydrogen fuel column is located between the station's other pumps. "The fuel nozzle is as easy to use as those for petrol and diesel," says Bettina Kunz, who has been the proprietor of the Geisingen Shell station since 2014.

About three minutes later - and the vehicle has been easily filled with gaseous hydrogen (chemical formula H₂). At 9.50 euros, a kilogram of hydrogen is an excellent value, since a vehicle's full four to five kilograms H₂ tank will last, on average, 400 to 500 kilometers. As a result, the per-kilometer cost corresponds to that of conventional fuels – but with the difference of emitting only a little water vapor in comparison.

In addition to Daimler, which has developed a small-series fuel cell vehicle with the Mercedes-Benz B-Class F-Cell and is launching the Mercedes-Benz GLC F-Cell beginning in 2017, Toyota and Hyundai now offer cars with fuel cell drive capabilities.

Contributing to Climate Goals

Why are the partners of the Clean Energy Partnership committing to hydrogen? The members of the partnership explain on site at the Bodenseestrasse station. Manfred Becker, who heads the construction of hydrogen filling stations at Shell: "Germany has set itself ambitious climate goals. Hydrogen plays an important role in that. Drivers can choose a climate-friendly fuel here. "

Through the use of hydrogen, a source of renewable energy is generated, meaning that climate-damaging CO₂ emissions can be avoided. The fuel cell vehicle is not responsible for producing environmentally harmful and toxic nitric oxides (NO_x) or particulate emissions. Becker: "Hydrogen technology is a promising technology. We assume that this alternative electric drive will play an increasingly important role in markets like Germany, England, Benelux and the USA over the next 20 years."

In order to ensure that hydrogen mobility is a success story in the transition of clean energy generation on the roads, a large number of fuel cell vehicles shall also require the necessary infrastructure.

In the past, the paradoxical chicken and egg dilemma was considered one of the obstacles to the introduction of hydrogen as a fuel. Frank Fronzke, responsible for plant operations at H2 Mobility Germany, explains: "Without sufficient H₂ vehicles on the road, there are no fuelling stations. And vice versa: without hydrogen stations, no vehicles."

Teamwork: Up to 400 Service Stations in Germany

In order to tackle this challenge, H2 Mobility Deutschland GmbH & Co. KG was founded in 2015, a joint venture of Air Liquide, Daimler, Linde, OMV, Shell and Total. The company will build and operate up to 400 hydrogen filling stations in Germany by 2023.

The technology of the H₂ station in Geisingen comes from Linde, just like three quarters of all H₂ filling stations in Germany. The technically demanding compression of the hydrogen, as well as its storage and refueling are carried out today with largely standardized plant components. They are space-saving and energy-efficient and can be flexibly fitted into the on-site filling station layout.

Thomas Bystry, Chairman of the Clean Energy Partnership, acknowledges the commitment of the companies: "Thanks to the collaboration of the industry and the federal government in the Clean Energy Partnership, we now have 25 public hydrogen filling stations in Germany. We are therefore a leader in Europe. The H2 Mobility Germany will continue to drive further expansion."

The Federal Government is promoting the construction of hydrogen filling stations with over 20 million euros through the National Hydrogen and Fuel Cell Technology Innovation Program (NIP). The federal government has invested 700,000 euros in subsidies for the construction of the facility in Geisingen.

"With funding from the NIP, 50 filling stations will be built in metropolitan areas along major highways," explains Philipp Braunsdorf from the National Hydrogen and Fuel Cell Technology Organisation, which coordinates the innovation program on behalf of the federal government. "By the end of 2016, with cooperation from the industry, we will have doubled the number of public hydrogen fuelling stations compared to the previous year."

Convenient Access to the Daimler Testing and Technology Center in Immendingen

Why was Geisingen chosen as the location for this modern facility? On the one hand, the Shell Station is located on the route from Baden-Württemberg to Switzerland and Austria. And on the other, the petrol station is close to the Daimler Testing and Technology Center in Immendingen, which is to be completed in 2018. Daimler will be moving a large part of it's future tests from public roads to this site, as well as developing alternative drives such as hybrids and electric vehicles with a battery or fuel cell and optimizing combustion engines.

Baden-Württemberg has now become a model for hydrogen. With nine petrol stations to date, the state offers the most hydrogen stations so far. And more are in the works: the Shell filling stations in Wendlingen, Sindelfingen and Pforzheim, will soon be offering hydrogen fuelling.

About the CEP

The Clean Energy Partnership - a merger of 20 leading companies - has set itself the task of establishing hydrogen as the "fuel of the future". With Air Liquide, BMW, Bohlen & Doyen, Daimler, EnBW, Ford, GM / Opel, H2 Mobility, Hamburger Hochbahn, Honda, Hyundai, Linde, OMV, Shell, Siemens, the Stuttgart roadways SSB, TOTAL, Toyota, Volkswagen The Westfalen Group, technology, mineral oil and energy companies as well as the majority of the largest automotive manufacturers and leading public transport companies are participating in the pioneering project for the future. Since 2008, the CEP has been supported by the National Innovation Programme for Hydrogen and Fuel Cell Technology (NIP).

www.cleanenergypartnership.de

About the NOW

The NOW GmbH the National Organisation for Hydrogen and Fuel Cell Technology was founded in 2008 by the Federal Government, represented by the Federal Ministry of Transport and Digital Infrastructure. It coordinates and manages two federal funding programs - the National Innovation Program for Hydrogen and Fuel Cell Technology (NIP) as well as the model areas for electric mobility for the Federal Ministry of Transport and Digital Infrastructure (BMVI). Both programs serve to prepare the market in order to make mobility and the future energy supply both efficient and low-emission. Research and development activities, as well as demonstration projects, are the main focus of the funding. It also supports the BMVI in the implementation of the mobility and fuel strategy for Germany. www.now-gmbh.de

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