

Hydrogen:
It's what drives us
Welcome to the new era of energy.

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Convenience plus climate protection

Here's the good news: With a fuel cell car, it's just as convenient to fill up as before, because fuelling stations are being integrated into existing petrol stations. And there's virtually no difference between hydrogen refuelling and the refuelling process with conventional fuels. The refuelling station is connected to the tank nozzle using a coupling and starts filling it up at the push of a button – this only takes three to four minutes and then you can drive 500-800 km on your full tank, depending on the vehicle model.

So, you don't have to lower your expectations when it comes to convenience. Add to that the advantages of an electric engine: it is quiet, offers instant acceleration, no engine vibrations. And: you can now protect the environment, too, while you drive. Sounds good, doesn't it?

Get on-board!

The National Innovation Programme for Hydrogen and Fuel Cell Technology (NIP) provides financial subsidies for purchasing fuel cell vehicles.

You can try out fuel cell cars in Berlin, Hamburg, Leipzig, Munich and Stuttgart. Clever Shuttle is providing an environmentally-friendly alternative to taxis in these locations. Commercial vehicles are already available on the market. Although they are not yet completely competitive in price, they are a good investment into the future.



New hope for the energy revolution

The German Climate Action Plan 2050 is aiming for a 45% reduction in CO₂ emissions across all sectors by 2030, in comparison to 1990. Due to its versatility, hydrogen has the potential to unite the energy sectors of electricity, heat and transport and provide a sustainable and integrated energy system.

In the medium term, the transport sector has a decisive role to play. To achieve the objectives of the Climate Action Plan, engines must be electrified and converted to electricity and other power-based fuels. At the same time, the efficiency of today's fuels and engines must be increased.

To ensure the technology is a success, we need a functional, blanket infrastructure – and a broad social acceptance of hydrogen.

May we introduce: Hydrogen

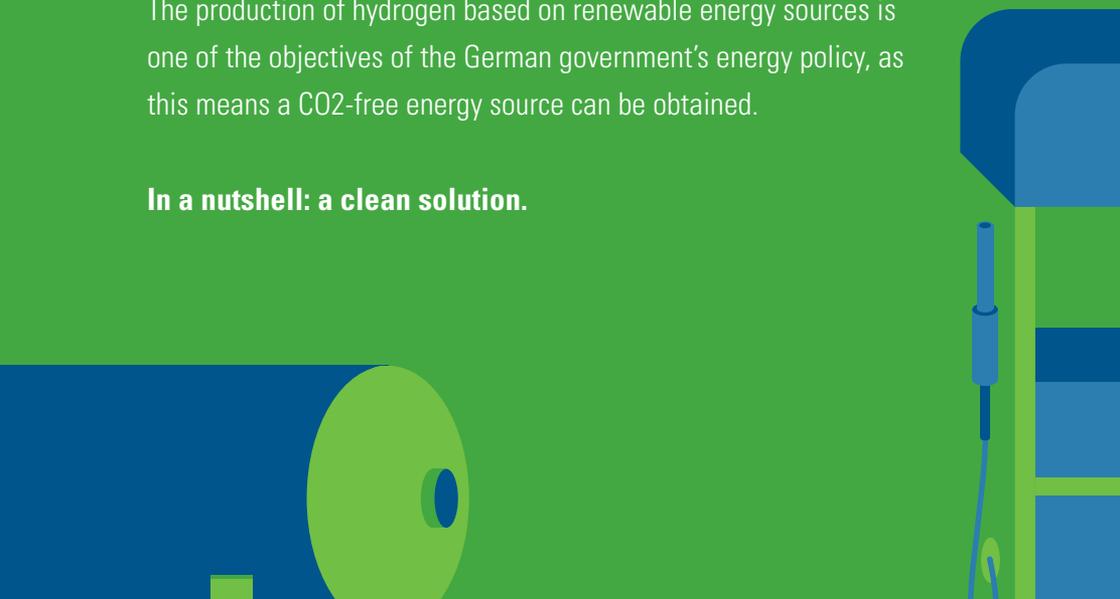
Everyone is talking about hydrogen. The Federal Government is subsidising it: hydrogen is a gas which, until now, has been predominantly produced and then directly used in the chemical industry. However, it is increasingly used as a fuel for vehicles that convert it into electrical energy using fuel cells. Hydrogen produced on a renewable basis is therefore the key factor for converting fossil energies to renewable energies in the transport and energy industries.

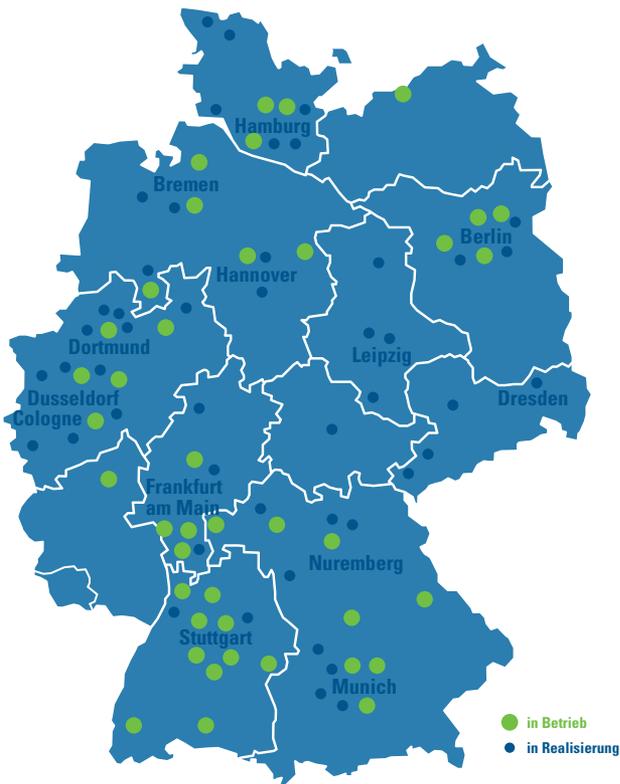
Clean!

The intention is to increasingly use water electrolysis to produce hydrogen. To do this, water is broken down into oxygen and hydrogen using electricity. The origin of the electricity, for example from solar energy, wind energy and biomass, is crucial to the climate footprint.

The production of hydrogen based on renewable energy sources is one of the objectives of the German government's energy policy, as this means a CO₂-free energy source can be obtained.

In a nutshell: a clean solution.





Ever denser: the network of fuelling stations

“But there are no fuelling stations!” is the argument that you often here when it comes to fuel cell cars. A network of hydrogen refuelling stations has been developed in Germany. In 2017 alone, their number more than doubled. At the moment, there are 50 stations (as of Sept 2018), spread across metropolitan areas and along interconnecting motorways and highways. Over 40 further stations are already being planned or built – by 2020, there should be more than 100.

This means there is a “basic supply” – the switchover to hydrogen-fuelled cars has begun.

Hydrogen – taking you further

For over ten years, the Federal Government has been subsidising hydrogen and fuel cell technology. The aim is to support research and development, speeding up the establishment of the environmental technology on the market and making it competitive. The state subsidy is also intended to reinforce Germany's status as a centre of technology and create jobs. NOW GmbH manages the overall programme. More information can be found at now-gmbh.de

Subsidised by:



Federal Ministry
of Transport and
Digital Infrastructure

Coordinated by:



Project administration:

