

Hydrogen-Powered Passenger Trains Launched in Germany

VOCABULARY WORDS

1. Fleet /fli:t/ (noun) a group of vehicles owned by the same person or organization or working together
Example: Lufthansa airlines added three new planes to its fleet.
2. Hydrogen /'haɪdrədʒən/ (noun) a chemical element that is a light, flammable gas with no color or smell
Example: Water is made up of the chemical compound 2 hydrogen and one oxygen.
3. Replace /rɪ'pleɪs/ (verb) to do, use, or have something instead of something else
Example: The retired manager was replaced by a younger and more energetic woman.
4. fuel cell /'fju:əl sel/ (noun) a device used to generate electricity from a chemical reaction
Example: All the vehicles in the showroom are powered by hydrogen fuel cells.
5. Generate /'dʒenə'reɪt/ (verb) to produce or create energy, money, etc.
Example: Their department generates the highest profit for the company.
6. carbon dioxide /'kɑ:rbən daɪ'ɑ:ksaɪd/ (noun) a gas that is produced when particular fuels are burnt
Example: Plants need atmospheric carbon dioxide to produce food.



German officials have launched what they say is the world's first fleet of hydrogen-powered passenger trains. The 14 new trains are replacing 15 diesel trains that were previously used in the German state of Lower Saxony. The new trains aren't being used on routes to and from Hannover, the state's capital and Germany's 13th largest city. Instead, rail company LNVG is using them on routes between Cuxhaven, Bremerhaven, Bremervörde and Buxtehude — all towns in the north of the state.

The Coradia iLint trains were made by French company Alstom and use hydrogen fuel cells to generate electricity to power their motors. Developed by the company's teams in both France and Salzgitter in Lower Saxony, Alstom says the trains don't produce any carbon dioxide

and don't make a lot of noise. State governor Stephan Weil said the around \$92 million project was an "excellent example" of how Lower Saxony is trying to make its economy greener.

According to Alstom, the Coradia iLint trains can go as fast as 140 kilometers per hour, and for as long as 1,000 kilometers before needing to be refueled. While this may be the first full fleet of Coradia iLint trains to be used on passenger routes, Alstom first tested using hydrogen-powered trains in Lower Saxony in 2018. The company has also tested using them in France, Austria and Sweden.

DISCUSSION

1. Do you expect hydrogen-powered vehicles to become commonplace within the next few decades?
2. Has your government recently taken any steps to make your country greener?
3. What do you imagine are the greenest countries in the world?
4. Have you been on many long-distance train journeys?
5. What are the easiest ways to travel between small towns in your region?