

## Hydrogen powered trains

# Hydrail

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[Hydrail](#) is a term used to describe all forms of rail vehicles, large or small, which use on-board [hydrogen fuel](#) as a source of energy to power the traction motors, or the auxiliaries, or both. Hydrail vehicles use the chemical energy of hydrogen for propulsion; either by burning hydrogen in a hydrogen internal combustion engine, or by reacting hydrogen with oxygen in a fuel cell to run electric motors. Widespread use of hydrogen for fueling rail transportation is a basic element of the proposed hydrogen economy used by research scholars, technicians and people within the field of transportation all around the world.



Remember when [Alstom](#) unveiled it's hydrogen technology passenger train?



It was 2016 when the [Coradia iLint™](#) hydrogen fuel cell train made its debut at the popular International Trade Fair for Transport Technology ([Innotrans](#)).

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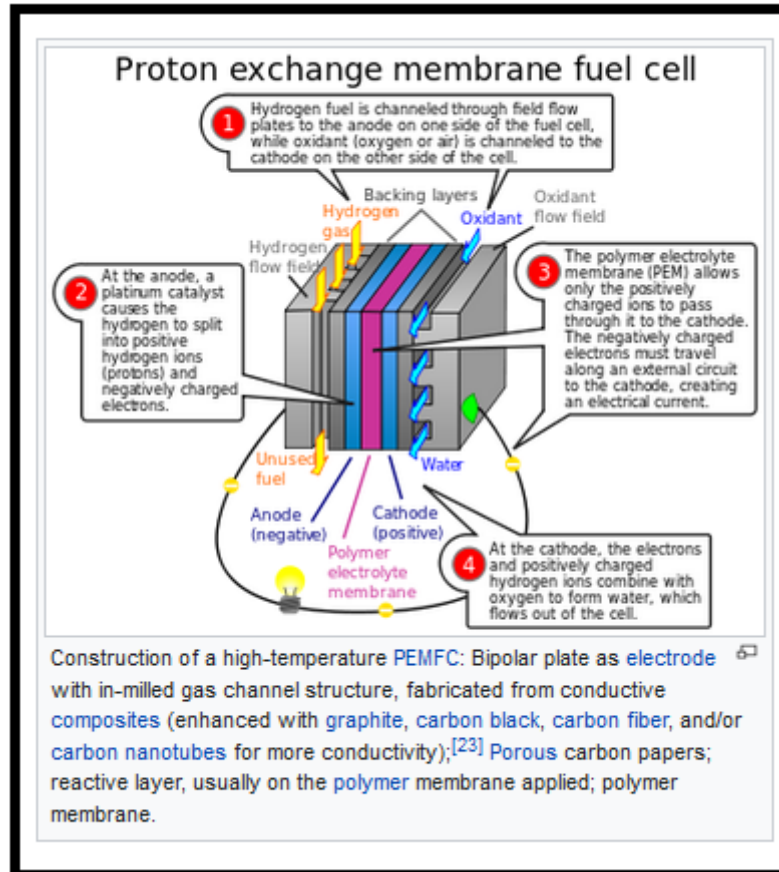
It was 2018 when the iLint™ initially began its commercial service in [Germany](#), which demonstrated Alstom's ongoing commitment to designing and delivering innovative and environmentally-friendly transport solutions while fast-tracking the transition away from high-carbon transport systems.



In August 2022, a fleet of five trains began service along a regional route in [Lower Saxony](#) with another nine trains to be added, which will replace the diesel trains on the line. These trains are emission free; the only exhaust these trains emit are steam and condensed water. Each low noise train has an impressive range of 600 miles; enough fuel for a full day of service on a single tank of hydrogen. A hydrogen filling station is available for these environmentally responsible trains. The transition to hydrogen trains should reduce pollution and save about 400,000 gallons worth of diesel fuel per year.

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The [hydrogen fuel cell](#) produces electrical power for traction. It provides electrical energy by combining the hydrogen stored in tanks with oxygen from outside air. Just water vapor and condensation are removed. It may seem complicated. But the way it works is simple. Hydrogen isn't used directly for propulsion; it's actually fed into the fuel cell, which in turn produces the electrical energy to run the train. Hydrogen powered trains are 100% CO2 emission-free. It's exhaust is only water. The process is efficient. Even the heat that the hydrogen train generates is used for the air conditioning system.



The world's first hydrogen filling station for passenger trains was built in cooperation with Linde in [Bremervörde](#), Germany and the 14 hydrogen powered regional trains Alstom supplied may be refueled at this filling station.

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Watch the [VIDEO](#) about the Coradia iLint hydrogen fuel cell train. Click [HERE](#).

Floor Covering Media publishes  
press releases called Flooring Updates.

## Flooring Updates



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## Flooring Network

For those in the market and those that serve it

Floor Covering Media is  
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