

Alstom and Eversholt Rail unveil a new hydrogen train design for the UK

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Alstom and Eversholt Rail have unveiled the design of a new hydrogen train for the UK market. The train, codenamed 'Breeze', will be a conversion of existing Class 321 trains, reengineering some of the UK's most reliable rolling stock, to create a clean train for the modern age. These trains could run across the UK as early as 2022, emitting only water and no harmful emissions at all.

The rolling stock conversion will be carried out by Alstom, working in partnership with Eversholt Rail and building upon an established business relationship spanning over 15 years and across multiple rolling stock fleets. This proven and reliable Class 321 is an excellent fit in terms of characteristics, fleet size and availability for conversion to a Hydrogen Multiple Unit (HMU).

Alstom and Eversholt Rail are working closely with industry stakeholders to develop the business cases and evaluate detailed introduction plans for fleets of these innovative trains and the associated fuelling infrastructure. Alstom and Eversholt Rail also confirmed that their initial, comprehensive engineering study is now complete, and the train design concept finalised. The innovative technical solution defined is the first to allow a hydrogen train to fit within the standard UK loading gauge, and it will also create more space for passengers than the trains they are intended to replace.

The Alstom facility in Widnes will manage the conversion of the Breeze trains, creating high quality engineering jobs in this new, emerging sector.

The news follows the introduction in September of Alstom's Coradia iLint hydrogen trains in Germany, where they now operate in regular passenger service on a daily basis. There is growing interest in Alstom's hydrogen technology worldwide, including in France where the President of the Occitanie region, Carole Delga, recently announced a proposal to introduce the technology on trains there.

"Hydrogen train technology is an exciting innovation which has the potential to transform our railway, making journeys cleaner and greener by cutting CO₂ emissions even further. We are working with industry to establish how hydrogen trains can play an important part in the future, delivering better services on rural and inter-urban routes," said Andrew Jones MP, UK Rail Minister.

"Transport in the UK has evolved over centuries from the world's first steam train to the tens of thousands of electric vehicles on our roads today thanks to our nation of innovators. This new hydrogen powered train, which will only emit water, is further proof of the UK's continued creativity to transform the way we travel as we continue to move to a greener, cleaner economy. The UK is on track when it comes to growing a world-leading hydrogen economy, and through our modern Industrial Strategy we are providing £23 million to power our ambition to be the 'go-to' place for first-class hydrogen transport," said Claire Perry MP, UK Minister for Energy and Clean Growth.

"The Breeze will be a clean new train for the UK with a stylish, modern look. The railways need to decarbonise and the Government has rightly set out a goal to eliminate diesel rolling stock by 2040. Hydrogen trains offer an ideal solution for routes which are unlikely to benefit from electrification, and our innovative engineering solution means they can now fit within the UK loading gauge and can quickly be ready to roll on Britain's railways. In Germany, Alstom's hydrogen trains are already transporting passengers in the comfort and quiet that is characteristic of these trains. The Breeze offers British rail users the opportunity to share in the pleasure that is a journey on a hydrogen train," added Nick Crossfield, Alstom UK & Ireland Managing Director.

"Eversholt Rail has an enviable record of innovation across its rolling stock portfolio. Combining the experience gained from the successful Coradia iLint and Class 321 Renatus programmes will deliver a hydrogen-powered multiple unit product that will meet sponsors' and train operators' aspirations for the earliest possible fleet introduction," added Eversholt Rail Client Relations Director Stephen Timothy.