ADL adds hydrogen fuel cell technology to the market's widest range of low and zero emission buses

27th November 2018

Alexander Dennis is adding hydrogen fuel cell buses to the market's widest range of low and zero emission buses. The technology, which requires separate fuelling infrastructures but could offer range benefits, has been developed on an Enviro400 double deck bus which has delivered best-in-class performance during route shadowing trials.

Already offering the market's widest range of low and zero emission buses, Alexander Dennis Limited (ADL) firmly believes no one size fits all when it comes to making bus travel more sustainable. The company continually invests in research and development of new technologies to ensure it continues to support bus operators with technologies that will enable them to improve air quality and lower their carbon footprint.

Hydrogen fuel cell technology can offer long range zero emission capability if suitable infrastructure can be put in place with sustainably sourced hydrogen. This could offer particular benefits for high capacity double deck buses.

To explore the potential for this technology, ADL has been working on a hydrogen double deck bus for over two years. It is based on the market-leading Enviro400 and has been developed through extensive collaboration between ADL's in-house Advanced Engineering teams and expert hydrogen and fuel cell system integrators Arcola Energy.

The hydrogen-powered Enviro400 has an electric driveline with axle-mounted motors. The on-board battery is charged by feeding hydrogen from secure tanks to a fuel cell system where it is converted to electricity. No external battery charging is required and the vehicle's only emission is water vapour.

A prototype bus has been through several design iterations to optimise performance and ensure highest standards of regulatory and safety compliance. The prototype has successfully completed route shadowing trials in several UK cities, delivering what is believed to be the highest efficiency and therefore lowest fuel cost in its class. Operators supporting the route shadowing trials have commented positively on the performance achieved.

ADL is now taking orders for this product and will be working with cities, bus operators and other stakeholders around the UK to further explore the potential for hydrogen fuel cell buses through fleet trials. It will seek to demonstrate the same reliability and high degree of vehicle availability for which its products are renowned. As with any ADL products, it will be sold with class-leading aftermarket support as well as benefitting from local hydrogen and fuel cell expertise from the company's partners.

The hydrogen fuel cell powered Enviro400 will be an addition to ADL's range of low and zero emission buses and will not replace any existing products.

The hydrogen vehicles will benefit from ADL's class-leading aftermarket support. Fuelling infrastructure and hydrogen supply can be provided from the company's partners.

ADL Chief Executive Colin Robertson said: "ADL continues to support bus operators across the UK by collaborating to develop new technologies that help achieve environmental and operational targets. Hydrogen fuel cell technology is part of the mix of solutions and we are delighted to now offer this option to the industry."

Ends.

Image credit

The image shows the prototype hydrogen fuel cell powered ADL Enviro400 during trials. *When used, please credit the image to Andrew Macintosh.*

A high-resolution version of the image is available from the ADL website at: https://www.alexander-dennis.com/media/news/2018/november/adl-adds-hydrogen-fuel-cell-technology-to-the-market-s-widest-range-of-low-and-zero-emission-buses/

About Alexander Dennis

Alexander Dennis Limited (ADL) is Britain's biggest bus and coach manufacturer and a global leader in the manufacture of lightweight, fuel-efficient vehicles. It employs 2,500 people and supports a further 1,500 through subsidiaries and build partnerships in Europe, Hong Kong, China, Malaysia, New Zealand, Mexico, the USA and Canada.

The success of ADL has been built on the premise of designing, engineering and manufacturing stylish yet reliable low and zero emission vehicles, which deliver lowest total cost of ownership, backed by unrivalled aftermarket support.

www.alexander-dennis.com/

About Arcola Energy

Arcola Energy is a systems engineering company and Tier 1 supplier specialised in hydrogen, fuel cells, and batteries.

The company was founded to address the “deployment gap” between ever-evolving clean energy technologies and end-user needs. Through 10 years of working with leading players across government, industry and academia we have built strong relationships and a deep understanding of the technologies, companies, market opportunities and potential pit-falls in this fast-changing industry.

We help our clients to develop the right technology, supply-chain and after-market solutions, avoiding costly mistakes and aiming to delight our respective customers. We have a collaborative approach, building long-term partnerships with and between our clients, suppliers and end-customers.

Being privately owned, we offer a truly independent view of the industry and are able to continually adapt our offerings to suit evolving client needs throughout the product life-cycle. Our independence also allows us to focus on what we believe in – products which make a positive contribution to society, delivered with total commitment to quality, safety and compliance.
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