

Media release

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Aurizon and Anglo American look to hydrogen-powered trains in Queensland

Australia's largest rail freight operator, Aurizon and leading global mining company Anglo American have agreed to work together on a feasibility study (the "Feasibility Study") to assess the introduction of hydrogen-powered trains for bulk freight.

Aurizon and Anglo American have entered into an agreement to conduct the Feasibility Study that will explore the application of Anglo American's proprietary hydrogen fuel cell and battery hybrid power units in heavy haul freight rail operations. If the Feasibility Study is successful, the agreement between the two companies could be extended to further phases of collaboration, which could include detailed engineering and the development of a hydrogen fuelled heavy haul locomotive prototype.

The Feasibility Study will focus on the potential deployment of Anglo American's hydrogen power technology on Aurizon's Moura rail corridor that operates between Anglo American's Dawson metallurgical coal mine and the Gladstone Port, and the Mount Isa rail corridor that operates between the North West Minerals Province to Townsville Port, via Aurizon's Stuart Terminal.

As part of its commitment to carbon neutral mines by 2040, Anglo American has taken a global lead in the development of green hydrogen solutions for its ultra-class 290 tonne payload mine haul trucking fleet. Anglo American's unique combination of powertrain technologies, designed to operate safely and effectively in real-world mine conditions, will displace the use of the majority of diesel at its mining operations, with an advanced trial of the prototype truck at its Mogalakwena platinum group metals mine in South Africa: [Anglo American Hydrogen power](#).

Aurizon is Australia's largest rail freight company, with the decarbonisation of its supply chains at the centre of its target to reach net zero operational emissions by 2050. Aurizon has also commenced research & development for battery-powered trains with a number of industry parties and Australian universities.

"Hydrogen offers enormous opportunity in decarbonising and continuing to improve the competitiveness of Australia's export supply chains," Aurizon's Managing Director & CEO Andrew Harding said.

"This is especially true for bulk products underpinning the Australian economy including minerals, agricultural products and fertilisers, industrials and general freight.

"Zero-carbon hydrogen-powered trains would also significantly boost the current environmental benefits of transporting more of Australia's bulk freight on rail. Rail freight already [produces up to 16 times](#) less carbon pollution per tonne kilometre than road.

"Aurizon is excited to be teaming up with Anglo American on this project, particularly given their success to date in developing unique technology solutions for use in mine haul fleets," said Mr Harding.

Tyler Mitchelson, CEO of Anglo American in Australia, said, "Anglo American has committed to carbon neutral operations by 2040, and we are aiming to reduce our Scope 3 emissions by 50% in the same timeframe. We know that we cannot achieve all of this alone, so we are working with partners along our value chains and outside our industry to find technical solutions to decarbonise.

"This collaboration with Aurizon is a great example of the power of partnerships to help address the urgent issue of climate change, while we also look to catalyse new markets to support the development and growth of the hydrogen economy," he said.

Tony O'Neill, Technical Director of Anglo American, added: "Our agreement with Aurizon marks the first time our hydrogen power technology could be tested beyond our existing mine haul truck programme. Displacing our use of diesel is critical to eliminating emissions at our sites and along our value chain. We believe that our innovative hydrogen-led technology provides a versatile solution, whether for trucks or trains or other forms of heavy duty transport."

The North West Mineral Province contains about 75 per cent of the Queensland's base metal and minerals, including copper, lead, zinc, silver, gold, cobalt and phosphate deposits. The province also has the potential to become a globally significant supplier of high-quality vanadium to the energy storage and steel markets with a number of projects under assessment.

The 180-kilometre Moura rail corridor from Dawson to the Gladstone port, and the 977km Mt Isa rail corridor from Mt Isa to Townsville Port both use diesel fuelled locomotives.

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About Aurizon

Aurizon (ASX: AZJ) is Australia's largest rail freight operator and a top 100 ASX company. Each year, the Company transports more than 250 million tonnes of Australian commodities, connecting miners, primary producers, and industry with international and domestic markets. We provide customers with integrated freight and logistics solutions across an extensive national rail and road network, traversing Australia. Aurizon moves bulk commodities such as iron ore, coal, cement, bauxite, alumina, base metals, grain, livestock and fertilisers. Aurizon is also well-positioned in markets serving the global uptake of electric vehicles, telecommunications and renewable energy infrastructure that is driving demand for Australian resources such as cobalt, copper and lithium. Rail is the safest and most environmentally friendly mode of land freight transport, delivering approximately 75% less greenhouse gas emissions per tonne of freight compared to road freight transportation.

About Anglo American

Anglo American is a leading global mining company and our products are the essential ingredients in almost every aspect of modern life. Our portfolio of world-class competitive operations, with a broad range of future development options, provides many of the future-enabling metals and minerals for a cleaner, greener, more sustainable world and that meet the fast growing every day demands of billions of consumers. With our people at the heart of our business, we use innovative practices and the latest technologies to discover new resources and to mine, process, move and market our future-enabling products to our customers – safely and sustainably.

As a responsible producer of diamonds (through De Beers), copper, platinum group metals, premium quality iron ore and metallurgical coal for steelmaking, and nickel – with crop nutrients in development – we are committed to being carbon neutral across our operations by 2040. More broadly, our Sustainable Mining Plan commits us to a series of stretching goals to ensure we work towards a healthy environment, creating thriving communities and building trust as a corporate leader. We work together with our business partners and diverse stakeholders to unlock enduring value from precious natural resources for the benefit of the communities and countries in which we operate, for society as a whole, and for our shareholders. Anglo American is re-imagining mining to improve people's lives.

In Australia, Anglo American operates five metallurgical coal mines in Central Queensland and is the State's second largest minerals tenure holder with a major early-stage copper exploration project in Queensland's North West Minerals Province.

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