

Press Release

Breakthrough low-carbon aluminum cables reduce the carbon footprint of AI infrastructure

- **Prysmian and Rio Tinto partner to bring low-carbon aluminum to an Amazon data center**
- **The use demonstrates that the carbon footprint of data centers can be reduced at the raw material level**
- **Breakthrough is the first known use of inert-anode-smelted aluminum in a data center**

As investment in AI, cloud computing and data centers accelerates, so does the need for electrical infrastructure to power them. Prysmian and Rio Tinto, in collaboration with Amazon, have taken a significant stride toward reducing the carbon footprint of that infrastructure, with electrical cables made using ELYSIS® aluminum that have been contracted for installation in an Amazon data center in Ohio, USA.

ELYSIS® technology produces aluminum with no direct greenhouse gas emissions from the smelting process by replacing traditional carbon anodes with proprietary materials that release pure oxygen instead of greenhouse gases.

The project marks the first known use of inert-anode-smelted aluminum in a data center, demonstrating how innovation in one of the most fundamental materials used in electrical infrastructure can support the rapid expansion of digital infrastructure while reducing its embedded carbon footprint.

Prysmian is using the aluminum to manufacture the electrical cables at its Sedalia, Missouri, facility for deployment in Amazon's data center infrastructure.

The project builds on the collaboration announced by Prysmian and Rio Tinto in March 2026 to introduce aluminum building wire produced using the ELYSIS® technology. Prysmian's partner, Wesco, is supporting the distribution and delivery to the project site.

Prysmian has targeted net zero Scope 1, 2, and 3 emissions by 2035, and over 55% of its revenues to be sustainability-linked by 2028.

*"We aim to reach net-zero emissions across our operations by 2040 through decarbonizing our operations and supply chain, down to the raw materials. Traditionally, making aluminum is carbon-intensive, but this wire was made with technology that emits oxygen instead of carbon dioxide and perfluorocarbons," said **Joern Tinnemeyer, VP of Data Center Engineering at Amazon Web Services (AWS)**. "Prysmian, Rio Tinto, and Wesco are showing that lower-carbon materials aren't a future concept – they're here and going into Amazon data centers today."*

*"The data center industry needs advanced technologies like this: cables that can effectively carry power, meet high-quality standards, and make a positive impact on the sustainability of the entire value chain," said **Srinivas Siripurapu, Chief Sustainability, R&D, and Innovation Officer for Prysmian**. "We have partnered with organizations that share our mission for sustainability-driven innovation, from Rio Tinto's supply of low-carbon aluminum to the delivery of product through our partnership with Wesco, and ultimately Amazon's final product."*

*"Data center customers are increasingly looking for solutions that help them meet aggressive growth targets while advancing their sustainability objectives," said **David Speidelsbach, Vice President, Sales and Strategic Initiatives at Wesco**. "This project demonstrates what is possible when manufacturers, distributors and end users work together to accelerate innovation. Through sustainable supply chain solutions that help reduce material waste and support circularity, we're proud to collaborate with Prysmian and Amazon to help bring more sustainable infrastructure solutions to one of the world's fastest-growing industries."*

*"This collaboration with Prysmian and Amazon demonstrates how innovation across the value chain can help deliver practical, lower-carbon solutions for customers. All of the aluminum supplied by Rio Tinto for these cables was produced in Quebec, Canada, using hydropower, including the aluminum made with ELYSIS® inert anode technology. By combining renewable power with a breakthrough smelting process that eliminates direct greenhouse gas emissions and produces oxygen as a by-product, we are helping create a new pathway to support the decarbonization of critical data center infrastructure," said **Matt Schicke, Rio Tinto Aluminum Vice President, Sales and Marketing**.*

Prysmian is the leading provider of solutions for energy and digital connections, delivering major electrical transmission projects on land and at sea, modernizing power grids, and unlocking renewable energy, electrification, and digital connectivity worldwide. The company combines engineering excellence with sustainability-driven innovation, enabled by its 34,000 employees, 109 production facilities and 30 R&D centers in over 50 countries. Prysmian is a public company, listed on the Italian stock exchange, and recorded 2025 revenues of approximately €20 billion.

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