

February 20, 2025

Novelis

Significant step toward carbon-neutral production: Novelis successfully tests industrial scale use of hydrogen in a recycling furnace

ZURICH, Feb. 20, 2025 /PRNewswire/ -- Novelis Inc., a leading sustainable aluminium solutions provider and world leader in aluminium rolling and recycling, today announced that it has successfully tested using hydrogen fuel to power a recycling furnace at its UK plant in Latchford, Warrington.



The tests were carried out as part of a UK government decarbonization programme and in collaboration with Progressive Energy, an independent UK energy company, and required the installation of new burners, regenerators, and furnace lining material. Using hydrogen instead of the same amount of natural gas when operating a melting furnace can reduce CO₂e emissions by up to 90%.

"Exploring renewable energy sources, such as hydrogen, making first mover investments, and reducing energy intensity are part of our 3x30 vision to advance aluminium as the material of choice with circular solutions", says Emilio Braghi, Executive Vice President, Novelis Inc., and President, Novelis Europe. "With the significant expansion of our local recycling capacity, we are transforming the Latchford site into a prototype for high-recycled content and decarbonized aluminium production."

With safety as the top priority of the hydrogen pilot project, several series of tests were conducted by blending different percentages of hydrogen with natural gas (30%-100%) to evaluate the impact on existing infrastructure, and equipment compatibility. During the trial campaign, several hundred tonnes of 3000 series scrap aluminium alloy were remelted and

cast into sheet ingots. In addition, all relevant parameters were measured to assess any impact on the product, process, operating environment, and environmental emissions.

Further downstream processing, including rolling and finishing, will be now completed at other Novelis plants in Europe to establish the real 'end-to-end' parameters of a hydrogen-based, recycled alloy production process. Following the full post-trial evaluation and assessments, a report will be released as part of the UK government's Industrial Fuel Switching programme later this year.

"The use of hydrogen is not common in the aluminium industry today and we are very proud to be one of the pioneers to have tested this new fuel at an industrial scale and in a real-world environment," says Allan Sweeney, Plant Manager, Novelis Latchford. "The results from Latchford will drive further research into the potential deployment of hydrogen in our recycling operations worldwide."

The demonstration project at Novelis Latchford is part of the UK government's Industrial Fuel Switching Competition programme. Supported with a grant of £4.6 million, as part of the £1 billion Net Zero Innovation Portfolio and the wider regional HyNet project, the programme is designed to support industry to decarbonise their operations through a switch from natural gas to low carbon hydrogen. As the UK's leading industrial decarbonisation cluster, HyNet will decarbonise industry across the North West and North Wales through the production, transportation and storage of low-carbon hydrogen, and through capturing industry's carbon dioxide emissions through Carbon Capture Solutions. Novelis has been a partner in the HyNet project since 2017 and is supporting the development of the regional infrastructure project.

Novelis is also conducting its own technical feasibility studies into the use of hydrogen as a direct replacement for natural gas, and more generally, Novelis research and development teams worldwide continue to investigate the possibility of using plasma and electricity to supply energy to its production plants.

As announced in July 2024, Novelis is investing approximately \$90 million to double the recycling capacity for used beverage cans (UBCs) at its plant in Latchford. The project will increase the facility's UBC recycling capacity by 85 kilotonnes per year and decrease Novelis Europe's CO₂e by more than 350,000 tonnes annually. The project is expected to begin commissioning in December 2026.

Furthermore, as part of its new Novelis 3x30 vision, the company has set new ambitious sustainability targets to achieve by the end of 2030, including increasing recycled content to 75% from today's 63%, reducing carbon emissions to less than 3 tonnes CO₂e per tonne aluminium shipped, and continuing to lead the industry to circularity through first-mover investments. These are in addition to the company's goal to be carbon neutral by 2050 or sooner. Along with using higher amounts of recycled content, decarbonization of the company's melting processes and energy sources are important levers to delivering lower-carbon, highly sustainable aluminium solutions.

About Novelis

Novelis Inc. is driven by its purpose of shaping a sustainable world together. We are a global leader in the production of innovative aluminum products and solutions and the world's largest recycler of aluminum. Our ambition is to be the leading provider of low-carbon,

sustainable aluminum solutions and to achieve a fully circular economy by partnering with our suppliers, as well as our customers in the aerospace, automotive, beverage can and specialties industries throughout North America, Europe, Asia and South America. Novelis had net sales of \$16.2 billion in fiscal year 2024. Novelis is a subsidiary of Hindalco Industries Limited, an industry leader in aluminum and copper, and the metals flagship company of the Aditya Birla Group, a multinational conglomerate based in Mumbai. For more information, visit [novelis.com](https://www.novelis.com).

About Novelis Latchford

Novelis Latchford in Warrington, UK, is one of Europe's largest aluminium used beverage cans recycling plants, and Europe's largest closed-loop recycling operation for automotive aluminium rolled products with an annual recycling capacity of up to 195,000 tonnes. The plant is an essential part of Novelis' European production, which has enough capacity to recycle every aluminium beverage can sold in the UK, and collaborated with Jaguar Land Rover (JLR) to create the first closed-loop system in Europe. Due to the high level of economic integration and the geographical proximity between the EU, UK, and Switzerland, Novelis operates across borders in well-established and efficient supply chains. This interconnectedness creates important economies of scale that we believe benefit the value chains across Europe and enables Novelis to maximize the use of recycled inputs in line with its ambition to provide low-carbon, sustainable aluminium solutions to its customers.

Forward-Looking Statements

Statements made in this news release that describe Novelis' intentions, expectations, beliefs or predictions may be forward-looking statements within the meaning of securities laws. Forward-looking statements include statements preceded by, followed by, or including the words "believes," "expects," "anticipates," "plans," "estimates," "projects," "forecasts," or similar expressions. Examples of forward-looking statements in this news release include the expectation that the use of hydrogen will reduce CO₂ emissions, the anticipation that the Latchford expansion will increase the facility's UBC recycling capacity and the plant's expected commissioning date, the planned increase of recycled content to 75% from today's 63%, the reduction of carbon emissions to less than 3 tonnes CO₂e per tonne of aluminium shipped, continuing to lead the industry to circularity through first-mover investments, and being carbon neutral by 2050 or sooner. Novelis cautions that, by their nature, forward-looking statements involve risk and uncertainty. Novelis does not intend, and disclaims any obligation, to update any forward-looking statements, whether as a result of new information, future events or otherwise. Important risk factors which could impact outcomes are included under the caption "Risk Factors" in Novelis' Form 10-K filed with the Securities and Exchange Commission for the fiscal year ended March 31, 2024, and as the same may be updated from time to time in Novelis' quarterly reports on Form 10-Q, or in other reports which we from time to time file with the SEC.

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