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# Novelis demonstrates UK´s first industrial-scale hydrogen fuel switching in the aluminium industry at Latchford site

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Novelis Inc., a leading sustainable aluminium solutions provider and the world leader in aluminium rolling and recycling, has successfully completed the UK's first full-scale hydrogen fuel switching demonstration in the aluminium industry at its Latchford plant, marking a major step toward industrial decarbonisation.

The two-week trial, funded by the UK Department for Energy Security & Net Zero (DESNZ) under the Industrial Fuel Switching (IFS) Competition, involved converting a natural gas furnace to operate flexibly on hydrogen.

"This trial has been a major achievement for our team," said Allan Sweeny, Plant Manager at Novelis Latchford. "It demonstrated that we can adapt our existing infrastructure to run on hydrogen without compromising safety, quality, or performance. It's a practical step forward in reducing our site's carbon footprint and preparing for a low-carbon future."

The demonstration confirmed that hydrogen can be safely delivered and combusted in aluminium recycling furnaces. Existing infrastructure was successfully adapted, product quality remained consistent, and dual-fuel burners allowed for operational flexibility. Novelis partnered with Progressive Energy to deliver the project over a two-year period.

In recognition of this achievement, the project was awarded the IEA Hydrogen TCP Award of Excellence 2025, presented in Busan, South Korea. The award highlights innovations in hydrogen technologies for hard-to-decarbonize sectors and sustainable fuels. Novelis was selected as the first winner among 13

global entries. The ceremony took place during the Clean Energy Ministerial (CEM) event, attended by energy leaders and government officials from over 24 countries including the US, UK, Germany, China, Brazil, South Africa, South Korea, and the European Commission.

The trial also underscored the need for robust infrastructure to support bulk hydrogen supply and distribution. Mechanisms like the UK's Low Carbon Hydrogen Agreement (LCHA) are a positive start, but widespread transport and storage networks will be essential for industrial decarbonization in the North-West.

The successful execution of this program gives Novelis the technical confidence to eliminate up to 45,000 tonnes of direct $CO_2$ emissions annually at the Latchford site, contingent on hydrogen availability. Future deployment depends on connection to the HyNet hydrogen network, expected from 2031, or on-site electrolytic production.

In parallel, Novelis is investing approximately $90 million to double the recycling capacity for used beverage cans (UBCs) at Latchford. This expansion will increase capacity by 85 kilotonnes per year and reduce Novelis Europe's $CO_2e$ emissions by more than 350,000 tonnes annually.

As part of its Novelis 3×30 vision, the company has set 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.