

NEWS RELEASE

3 September 2021
Nippon Sheet Glass Co., Ltd.

Architectural Glass Production Powered by Hydrogen in World First

The NSG Group has successfully manufactured architectural glass at its facility in the UK, using hydrogen power in a world-first trial.

As previously announced on 27 February 2020, this trial is part of the “HyNet Industrial Fuel Switching” project (*1). The successful three-week trial late August was conducted at the Greengate site of Pilkington United Kingdom Limited, a group company, in St Helens.

In the trial the NSG Group managed to achieve a seamless transition between its current main fuel, natural gas, and hydrogen, with the expertise overcoming many challenges. The trial proved that hydrogen was as capable as natural gas in achieving excellent melting performance and that it could be possible to operate the furnace with vastly reduced carbon emissions. It is a key step in the Group’s plans to decarbonize. The switch to hydrogen to power the production from natural gas means that float glass furnaces – which account for the majority of the Group’s overall carbon emissions – would be able to operate with hugely lower emissions.

It was in St Helens that the float glass process was developed in 1952, revolutionising how glass is made around the world. Now, 70 years later, this trial represents another major milestone for the global glass industry.

For a longer term, a stable supply of hydrogen made possible through a network of pipelines to key industrial sites could enable a full transition to hydrogen fuelled glass making.

With the Medium Term Vision of becoming a global glass supplier contributing to the world with high value-added glass products and services, the NSG Group aims to achieve 2 percent p.a. reduction in carbon emissions (scopes 1 and 2) during the three-year period of the Revival Plan 24, with a view to achieve 21 percent reduction in 2030 compared to the 2018 levels and further to lay out its roadmap to achieve carbon neutrality by disruptive innovation. (*2)

About the NSG Group (Nippon Sheet Glass Co., Ltd. and its group companies)

The NSG Group is the world's leading supplier of glass and glazing systems in the business areas of Architectural, Automotive and Creative Technology.

Architectural manufactures and supplies architectural glass as well as glass for the solar energy and other sectors.

Automotive serves the original equipment (OE) and aftermarket replacement (AGR) glazing markets.

Creative Technology comprises several discrete businesses, including lenses and light guides for printers and scanners, and specialty glass fiber products such as glass cord for timing belts and glass flake. <https://www.nsg.com>

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* 1 The HyNet project is part of the wider North West Energy & Hydrogen Cluster.
<https://hynet.co.uk/>

* 2 The NSG Group's medium term management plan, Revival Plan 24 (RP24) (2022/3 – 2024/3)
https://www.nsg.com/-/media/nsg/site-content/ir/ir-presentations/mtprp24presentation2021_e02.pdf



Steve Rotheram, Metro Mayor of the Liverpool City Region, visiting the site

Approximately 60 road tankers of hydrogen used for the trial



The Greengate site