

# HUGE NEWSFLASH

Hydrogen Utilization & Green Energy

May 2020

## Hydrogen and steel success in Sweden

*Electrek* carries a short piece looking at successful efforts to use Hydrogen to heat steel.

The Swedish-headquartered steelmaker Ovako and Linde Gas jointly ran a trial that used hydrogen rather than liquified petroleum gas to re-heat steel before rolling at the mill in Hofors, Sweden.

Steel production and manufacturing is seen as one area that hydrogen could replace fossil fuels in industrial processes leading to decarbonisation of industry.

Göran Nyström, EVP group marketing & technology at Ovako was keen to stress the importance of this development, he said :

*“This is a major development for the steel industry. It is the first time that hydrogen has been used to heat steel in an existing production environment. Thanks to the trial, we know that hydrogen can be used simply and flexibly, with no impact on steel quality, which would mean a very large reduction in the carbon footprint.”*

The article finishes by saying that Ovako will now look to rolling it out across their other rolling mills.

More info can be found at:

<https://electrek.co/2020/05/06/egeb-ikea-green-energy-swedish-steelmaker-hydrogen/>

## Wärtsilä gas engines to burn 100% hydrogen

*GreenCarCongress* outline developments by the Finnish technology group Wärtsilä to enable combustion of 100% hydrogen fuel in their gas engines.

Building on 20 years worth of research into hydrogen the group has been testing blends of 60% hydrogen gas and 40% natural gas and now aims to burn pure hydrogen.

The group is looking to hydrogen to future proof its engine technology in line with global trends towards net zero, particularly in the marine markets.

The article then goes on to look at how green hydrogen can be used as a renewable fuel and in the long term storage of energy during persistent periods of low wind and solar weather conditions.

The article also recognises the role that battery storage has to play in decarbonisation but outlines how renewable fuels such as hydrogen can be used to reduce the required size of battery storage systems.

More info can be found at:

<https://www.greencarcongress.com/2020/05/20200506-wartsila.html>

## Hydrogen House is Greenest in Europe

The newspaper *The Times* reports on a UK built house dubbed ‘the greenest in Europe’ largely thanks to green hydrogen production.

The house called Autarkic, which means self sufficient, uses solar panels to generate electricity and hydrogen.

The owners, Mr and Mrs Moffat, decided to store spare energy as green hydrogen rather than battery storage due to the environmental impact of battery production.

The house uses 72 solar panels to generate hydrogen via electrolysis, which is stored at high pressure, to then be used at night and in the winter when solar power is not available.

The house uses a hydrogen fuel cell to power the house as well as using a hydrogen boiler to heat the house.

The couple have started a company called Autarkic Living to help other people who want to build hydrogen houses.

More info can be found a:

<https://www.thetimes.co.uk/article/hydrogen-house-is-greenest-in-europe-tng7cpvgn>