

Sweden's Summer Sunshine Stored in Hydrogen for the Winter

MicroGrid Knowledge covers the renovation of 6 public housing buildings in Vårgårda, in South West Sweden that will allow them to run on renewable energy all year round.

A microgrid composed of solar panels, batteries, heat pumps, hydrogen production and storage and hydrogen fuel cells provides heat and power to 172 apartments.

The system designed by Nilsson Energy will produce renewable heat and power 8760 days a year by using excess solar generation from the long Swedish days of sunlight in the summer to produce hydrogen that will then be stored for the winter and used by a fuel cell to power a ground source heat pump in the winter.

Martina Wettin, one of the founders of Nilsson Energy, outlined the novelty of the project "We spent a lot of time working with the authorities. It is new, people aren't that used to having hydrogen out in a densely populated area... It has been a very important process that has been going on for more or less three years".

More info can be found at:

<https://microgridknowledge.com/microgrid-hydrogen-sweden/>

High level of support for hydrogen in homes

The *Environment Journal* outlines the results of a survey by Newcastle University that asked the public about acceptance of using hydrogen to fuel their homes.

The survey found that most people would be happy to use hydrogen as a domestic fuel but the main concern centres around the cost of making the transition. The article outlines the historic use of hydrogen from fossil fuels for heating and lighting up until the 1970s and moves onto highlight hydrogen uses today and in the future.

The survey found "that 87% of people were willing to use hydrogen in their homes, with 70% of respondents believing that it would have a positive effect on the environment".

The survey has now prompted Newcastle University to call for greater public discussion about the role hydrogen can have in the future of homes. Dr Matthew Scott from the university said "Although cost was the most significant individual objection, overall most people did not reject the idea of hydrogen as a fuel for their home."

More info can be found at:

<https://environmentjournalonline/articles/87-of-people-are-willing-to-use-hydrogen-to-fuel-their-homes/>

Denmark moves ahead with renewable projects

A piece for *Energy Reporters* outlines a new Danish project that now has the funding to produce and store green hydrogen. Orsted, a Danish company which is a world leader in offshore wind, and partners have now received US\$5.2 million from the Energy Technology Development and Demonstration Programme (EUDP) for the hydrogen project.

A 2MW electrolyser will be powered by one of Orsted's Siemens Gamesa 3.6MW turbines at the offshore wind farm at Avedøre.

Recognising that for transport fuel hydrogen has to come down in price the project will aim to make green hydrogen for transport competitive with fossil fuel by generating 600kg of hydrogen a day, enough to power 20 to 30 busses.

Anders Nordstrøm, Orsted's hydrogen chief identifies that "Heavy road transport is one of the sectors which can be made greener by indirect electrification with hydrogen produced from renewable sources".

More info can be found at:

<https://www.energy-reporters.com/environment/denmark-moves-ahead-with-renewable-projects/>