

Press Release

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Vattenfall and Preem look into large-scale production of fossil-free hydrogen in Lysekil

The collaboration between Vattenfall and Preem, aimed at producing fossil-free hydrogen for biofuel production, is entering the next phase. A study is now being conducted to examine opportunities for building a large-scale production facility at the refinery in Lysekil.

Preem's target of producing 5 million cubic metres of biofuel by 2030 may result in a reduction of transport emissions of up to 12.5 million tonnes of carbon dioxide, equivalent to about 20 per cent of Sweden's total emissions. This shift in production will require a sizable supply of hydrogen.

For this reason, Vattenfall and Preem have decided to look into the possibility of meeting Preem's hydrogen needs with fossil-free hydrogen from extensive water electrolysis. The study, planned to be completed by summer, will not only look into hydrogen production, but also the refinery's future electrical supply. Should the study prove positive, the next step may be to plan for constructing the first electrolysis facility at the Lysekil refinery, amounting to 200-500MW.

"Increased production of biofuel is one of the cornerstones of Preem's overall, long-term business strategy. At the same time, we are working hard to reduce production emissions. Investing in fossil-free hydrogen could create opportunities for producing more biofuel while reducing emissions at our refineries," says Peter Abrahamsson, Head of Sustainable Development at Preem.

"We are very positive toward our partnership and taking the next step with Preem. Fossil-free transport is one of the most important focus areas for reducing a third of Sweden's carbon dioxide emissions. Partnership and electrification via fossil-free hydrogen are vital for creating a fossil-free society," says Andreas Regnell, Head of Strategy at Vattenfall.

Preem, Sweden's largest producer of fuel, plays a prominent role in the shift toward more renewable fuel. Vattenfall, Sweden's largest producer of electricity, aims to assist customers and society in reducing greenhouse gas emissions and to enable fossil-free living within one generation. Fossil-free hydrogen production through electrolysis is but one of the solutions being investigated to reduce emissions from Preem's refineries.

For Sweden to reach its climate objective of reducing carbon dioxide emissions from transport by 70 per cent by 2030, production of renewable fuels must increase dramatically. Reaching this goal will require more electricity and more fuel for the existing vehicle fleet.

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Vattenfall

Vattenfall is a leading European energy company. For more than 100 years we have electrified industries, supplied energy to people's homes and modernised our way of living through innovation and cooperation. We now want to make fossil-free living possible within one generation. Therefore, we are driving the transition to a more sustainable energy system through growth in renewable production and climate smart energy solutions for our customers. We have about 20,000 employees and operate primarily in Sweden, Germany, the Netherlands, Denmark and the UK. Vattenfall is owned by the Swedish State. For more information: corporate.vattenfall.se

PREEM is Sweden's largest fuel company. Our vision is to lead the transition toward a sustainable society. By 2030, Preem will produce 5 million cubic meters of renewable fuels, and to achieve climate neutrality by 2045. Preem's two refineries are among the most modern and environmentally friendly in Europe with a refining capacity of over 18 million cubic meters per year. Our business includes production, sales, distribution, as well as trading and the sale of goods. We refine and sell fuel, heating and lubricating oil as well as other products to companies and individuals. Most of our products, almost 80 percent, are exported to the international market, mainly to northwestern Europe. We have a nationwide service network with 570 filling stations for private and commercial traffic. Preem AB has just over 1,500 employees, of which 950 work at our refineries. In 2019, Preem's turnover was SEK 96 billion.