

Inauguration of the fossil-free hydrogen plant in Ovako

Inauguration ceremony held in the presence of Swedish Prime Minister

On September 5, 2023, Ovako, our European special steel manufacturing affiliate, has inaugurated fossil-free hydrogen plant built at Hofors mill in Sweden, and held a ceremony in the presence of Swedish Prime Minister Ulf Kristersson and many other prominent guests.

This plant will generate about 4,000m³ of fossil-free hydrogen per hour through electrolysis of water using fossil-free electricity. By using fossil free hydrogen produced at this plant as fuel for production of special steel, Ovako will be able to significantly reduce CO₂ emissions from the process of heating steel before rolling at Hofors mill.

In line with the increasing importance to mitigate climate change in the world, Sanyo Special Steel Group will further promote reduction of CO₂ emissions and attainment of carbon neutrality in its global business activities including Ovako in Europe and SSMI in India.

Ulf Kristersson, Swedish Prime Minister (center), Katsuhiro Miyamoto, President of Sanyo (left), and Marcus Hedblom, Ovako CEO (right) at the inauguration ceremony.

In his speech at the ceremony, Prime Minister Kristersson praised Ovako's initiative, saying, "What Ovako is accomplishing here today is a crucial step – this is green transition in action, not just words".



Ulf Kristersson, Swedish Prime Minister (right) and Ovako officers starting up the hydrogen plant (from left: Marcus Hedblom CEO, Rickard Qvarfort Head of Business Unit Hofors Hellefors, and Katsuhiro Miyamoto President of Sanyo)

Ovako plays an important role in recycling steel resources in the European region through its specialty steel manufacturing business, which mainly uses steel scrap. They have also promoted world-leading initiatives to minimize CO₂ emissions and have reduced its own steel production-generated emissions by 58% since 2015.

In April 2020, at its Hofors mill, Ovako became the first steelmaker in the world to succeed in heating steel prior to rolling using hydrogen as fuel, and in June 2021, they began to construct a plant that produce fossil-free hydrogen for practical application. Furthermore, In January 2022, Ovako has started its carbon neutral production by offsetting the remaining CO₂ emissions with the carbon offset program in use and has begun providing green steel.

The new fossil-free hydrogen plant is one of the largest facilities in Europe, realized with support of the Swedish Energy Agency and collaboration with local key players such as the Volvo Group, Hitachi Energy, H2 Green Steel, and Nel Hydrogen. By converting from the LPG currently used as heating furnace fuel to fossil-free hydrogen, Ovako will be able to reduce CO₂ emissions in steel production by approximately 50% (about 20 thousand tons annually) at Hofors mill. In addition, this technical solution will be the first step in development of hydrogen infrastructure that can be utilized in the transport sector; for example, development of fossil-free freight transportation using fuel cell-powered trucks. The solution is also expected to contribute to improving stability of the power grid. Moreover, the residual heat can be utilized in local area heating networks.



Electrolyzer of Hydrogen plant of Ovako

Based on the knowledge gained from the operation of this fossil-free hydrogen plant, Ovako will consider to actively implement local hydrogen production in all units toward 2030 and will promote initiatives to mitigate climate change.

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