SSAB, LKAB and Vattenfall set up research project for CO2 free steel industry

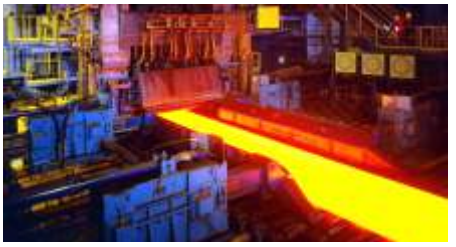
The Swedish Energy agency is investing in a 4-year long research project to form a carbon dioxide (CO2)-free steel industry.

The three companies behind the project, SSAB, LKAB, and Vattenfall (Europe's leading electricity generator), launched the initiative to solve the CO2 issue in the Swedish steel industry back in the spring of last year.

The project's goal is to come up with a process that emits water instead of CO2 by using hydrogen (H2) instead of the current procedure that's based on blast furnaces burning coal and coke.

The research project has been allocated 102 mln Swedish crowns, with The Swedish Energy Agency providing SEK 56 mln of this amount and the three companies contributing the remaining SEK 46 mln.

The Swedish Energy Agency's Director General, Erik Brandsma, commented: "One of the biggest challenges we face with global warming is reducing industrial use of fossil fuels. Investigating how to replace



coal and coke with H2 in the Swedish iron and steel industries is both an obligation and a unique global opportunity to improve our competitiveness in the future."

Funding from The Swedish Energy Agency has opened the door for the launch of a number of new research projects by organisations such as KTH, Lule University of Technology, SWEREA MEFOS, Lund University, Stockholm Environmental Institute, and RISE, who will work toward the goal of a CO2-free steel industry.

The initiative is divided into three phases: a pre-feasibility study that will run through the end of 2017, followed by research and testing in a pilot plant through 2024, and the final step, which involves carrying out testing in a full-scale demo plant through 2035.

Sweden is ideally suited for this type of initiative with its specialised, innovative steel industry, access to fossil fuel-free electrical power, and Europe's highest-quality iron ore.

Vale hires head hunter to find CEO successor

Brazilian mining company Vale SA has hired head hunter Spencer Stuart to find a successor to Chief Executive Officer Murilo Ferreira.

The company said that Spencer Stuart will present a list of candidates to the company's board to make a final decision by the end of May.

MMK awards Continuous Slab Caster and Heavy-plate Mill modernization work to SMS

Russian steel producer Magnitogorsk Iron & Steel Works (MMK) has awarded SMS group the order to modernize its No. 6 continuous slab caster and the heavy-plate mill, and upgrade both plants' X-Pact electrical and automation systems.

The caster, which currently produces slabs of thicknesses 190, 250 and 300 millimeters, will in future be able to also produce slabs with a thickness of 350 millimeters. The maximum cast width will remain unchanged at 2,700 millimeters. The future higher weight per meter of the slabs will optimize the allotment of the plates to be produced from the slabs. As a result, the yield will increase markedly.

The SMS group's scope of supply for the continuous caster includes the basic and detail engineering, the optimization of the secondary cooling system, the adaption of the X-Pact electrical and automation systems, the upgrade of the technological process models (level 2) and supervision of installation and commissioning.

In order to be able to handle the greater slab thickness in the plate mill, the maximum roll lift in the horizontal stand will be increased from 320 to 370 millimeters. This will be achieved mainly by modifying the CVC roll bending and shifting system, installing new chocks for the upper work roll and adapting the back-up roll balancing system. SMS group will also supply a new level-2 model for the reheating furnaces and an upgrade of the process models in the rolling mill.

The project including all modification and installation work and the commissioning is scheduled to be completed by the end of 2017.

The continuous slab caster and the 5.0-m heavy-plate mill were supplied by SMS group in 2009. The mill stand was the first in Russia to feature a CVCplus system. With a rolling force of 120 MN it is one of the most powerful mill stands in the world.