PROJET CarlHYng
Création d'un site de production d'hydrogène renouvelable et bas-carbone à Carling

Concertation garantie par LA commission nationale du débat public CNDP

CAHIER D'ACTEUR

SHS interest in CarlHYng project

SHS - STAHL-HOLDING-SAAR

SHS – Stahl-Holding-Saar GmbH & Co. KGaA

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SHS – Stahl-Holding-Saar GmbH & Co. KGaA is an operative management holding that actively assumes tasks for the two steel companies in Saarland, Germany as well as their respective subsidiaries as ROGESA Roheisengesellschaft Saar mbH ("ROGESA"): Aktien-Gesellschaft der Dillinger Hüttenwerke (hereinafter "Dillinger") and Saarstahl Aktiengesellschaft ("Saarstahl"). Dillinger produces heavy plates for sectors such as construction, offshore wind and oil & gas. Saarstahl is a manufacturer of high-quality wire rod and bar for the automotive and general engineering industries. ROGESA operates the blast furnaces at the Dillingen site producing pig iron which is used in the steel plants of Dillinger and Saarstahl. The term "SHS" is used in this document for the mentioned group of companies.

SUMMARY OF THE CONTRIBUTION

Renewable, low-carbon hydrogen is one of the only energy carriers that can decarbonise industrial sectors which processes have until now relied essentially on fossil fuels, such as the steel and metal industry.

The CarlHYng project, with its planned annual production of 51,000 tonnes of hydrogen, represents an opportunity for transborder manufacturers wishing to decarbonise and, more broadly, for the Grand Region to achieve carbon neutrality while guaranteeing its industrial future in the context of the reindustrialisation of Europe.

As part of its own decarbonization strategy, SHS is following with interest the development of hydrogen production projects, among other the CarlHYng project based in Carling, Moselle.

SHS PLANS FOR DECARBONIZATION

SHS has initiated an ambitious plan to produce CO2-reduced steel based on the consumption of renewable and/or low carbon hydrogen in the direct reduction process which initially requires a switch from the blast furnace process to direct reduction. According to the current state of planning, SHS needs a supply **of ~25-50 kt RED II/III conform hydrogen in total in 2030** which is expected to ramp up:

- with the anticipated commissioning of the hydrogen network at the end of 2027 with a supply of ~6-12 kt hydrogen per year and
- additional supplies of ~6-12 kt hydrogen each per year starting in the period between 2028-2030.

The cross-border hydrogen network project – named **MosaHYc** and developed by GRTgaz, Creos and Encevo – gives SHS the opportunity to be supplied with hydrogen by several producers located on both sides of the border and connected to MosaHYc too. Therefore, SHS confirms its interest to be supplied by several independent H2 producers. SHS will award the suppliers on the basis of a procurement procedure. The selection of the contractual partners will be based on objective criteria. The company's registered office will not become decisive in the selection of the contractual partners. Therefore, in principle, the selection of several cross-border suppliers (in particular French, BeNeLux) is also possible.

SHS understands that the CarlHYng project carried out by Verso Energy, will include a 300 MWe electrolysis capacity by 2030 that will produce around 51 kt of hydrogen per year. This electrolysis capacity will be reached by a successive deployment of 3 units of 100 MWe between 2027 and 2030. The hydrogen production units will be connected to the MosaHYc pipeline, that runs directly through CarlHYng site.

The CarlHYng project will thus contribute to the structuring of a decarbonised energy ecosystem on the cross-border territory thanks to the production of renewable and low carbon hydrogen for local offtakers (industries, road transport, logistics…).

CONCLUSION

The hydrogen industry, of which is taking part the CarlHYng project, is part of a growth sector, key to meet the challenges of decarbonisation and reindustrialisation of the region.

In this context and in perspective of its own hydrogen needs, SHS is following with interest the development of hydrogen production projects, among other the CarlHYng project based in Carling, Moselle.