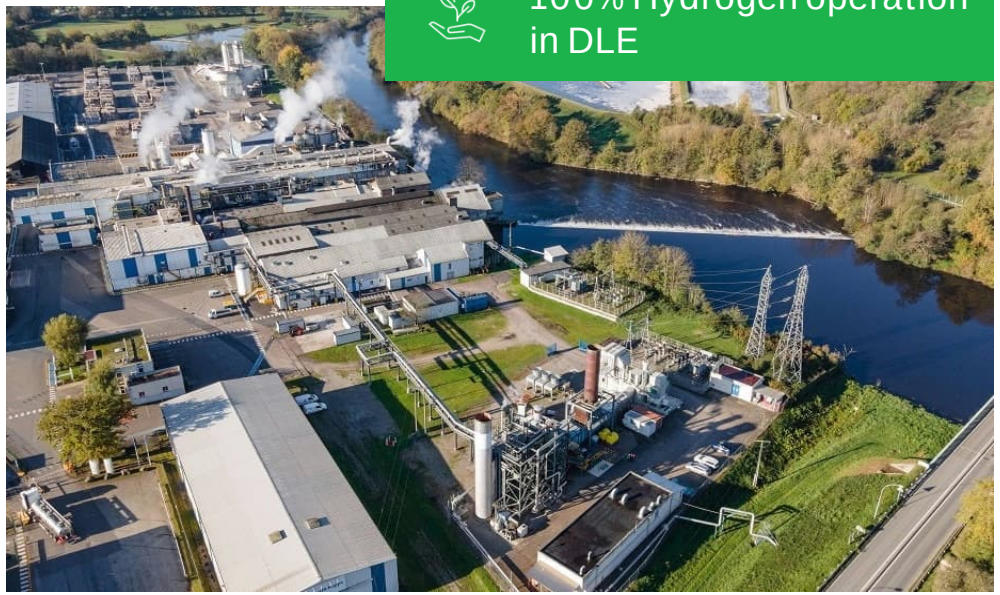
Reference Smurfit Kappa site in Saillat-sur-Vienne | France, September 2023

The world's first integrated Power-to-H_2-to-Power/Heat demonstration plant.



100% Hydrogen operation in DLE

Project type

Hydrogen Production

Fuel shift hybridization | Partnership | Electrolyzer | H_2 gas turbine

Customer Challenge/Driver

The EU-funded HYFLEXPOWER project, involving a consortium of Omterra, Engie Solutions, and Centrax, is demonstrating the use of hydrogen, produced and stored from renewable electricity, in combination with natural gas in combined heat and power plants. The OGT-400 industrial gas turbine at this site has been upgraded to convert stored hydrogen into electricity and heat.

Portfolio Elements/Scope

- Sylizer 200 electrolysis, hydrogen compression/storage and a 12 MW OGT-400 industrial gas turbine
- For the first time, an existing commercial gas turbine has been converted to run on 100% H2 mixtures in DLE mode

Customer Benefit

- 100% H_2 for carbon-free power generation from stored green renewable energy successfully demonstrated in Sept. 2023
- Decarbonizing Smurfit Kappa PRF pulp and paper industrial site by modernizing the combined heat and power plant
- The partnership within the consortium leverages shared expertise, drives innovation and pioneers the application of technologies previously limited to the mobility and laboratory sectors.

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