DEMO CASE

COVAP

Waste heat gives cool dairy

THE DAIRY INDUSTRY

The plant of COVAP in Spain, includes dairy industry (50%), meat industry (20%), and animal feed (30%), on an area of 14,000 m^2. Direct and indirect steam is used for pasteurization, cleaning, and hot water for the diary plant.The pilot targets renewable-driven co-generation of heating and cooling.

THE INTERVENTION

To achieve this co-generation, the project integrates two turbo-compressors into an absorption chiller, creating a unique hybrid unit. Unlike other demo sites, this installation does not rely on existing waste heat. Instead, it actively cools an external water circuit while capturing its own low-grade excess heat (usually around 30°C). The system then upgrades this heat to a useful temperature, repurposing it to directly pre-heat the dairy plant's hot water circuit.

THE IMPACT ON ENERGY CONSUMPTION

BS-NOVA will provide the plant with an innovative hybrid absorption/compression heat pump which, together with HVFP solar collectors provided by TVP Solar, will be integrated into a biomass-based renewable heating system.
After the intervention, COVAP will save up to 90 MWh/year in electricity and 830 MWh/year in natural gas. Avoided emissions will amount to ~225 tCO_2/year.

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