

Power for the Estavayer Wastewater Treatment Plant



The wastewater treatment plant in the Estavayer-le-Lac region plays a central role in treating wastewater from multiple municipalities united under the intermunicipal association ERES. The member municipalities include Cheyres, Châbles, Murist, Lully, Vernay, and Estavayer-le-Lac.

In addition to municipal wastewater, the facility also processes industrial wastewater from two agricultural and food processing companies located in the municipality of Estavayer, making it a key infrastructure asset for the region.

To enhance energy efficiency and sustainability, an agenitor 408 combined

heat and power (CHP) unit was installed at the wastewater treatment plant. The system is designed for robust performance and reliably delivers its full electrical output even under demanding conditions, such as outdoor temperatures of up to 40 °C.

A modern SCR catalyst was integrated to significantly reduce emissions. This solution successfully lowers NO_x levels to below 100 mg/Nm³, while maintaining a high electrical efficiency of 41.3%. The CHP plant achieves an overall efficiency of 83%, ensuring optimal utilization of the available energy resources.

Due to limited space on site, a compact and innovative layout was required. The exhaust gas heat exchanger was therefore installed on the container roof, followed by an exhaust silencer and the chimney system. This configuration allowed for efficient use of the available space without compromising system performance. IWK Integrierte Wärme und Kraft AG supplied the complete gas treatment system, including gas heating, an activated carbon filter, and a gas compressor. This integrated solution ensures consistent gas quality and contributes to the reliable and efficient operation of the entire plant.

Key benefits include:

- Reliable power generation even under extreme temperature conditions
- Significant reduction of emissions with NOx values below 100 mg/Nm³
- High electrical efficiency combined with an overall efficiency of 83%
- Optimized system design tailored to space constraints
- Stable and efficient operation through advanced gas treatment



Wastewater Treatment Plant Estavayer

agenitor 408
Biogas
400 kW electrical
373 kW thermal

