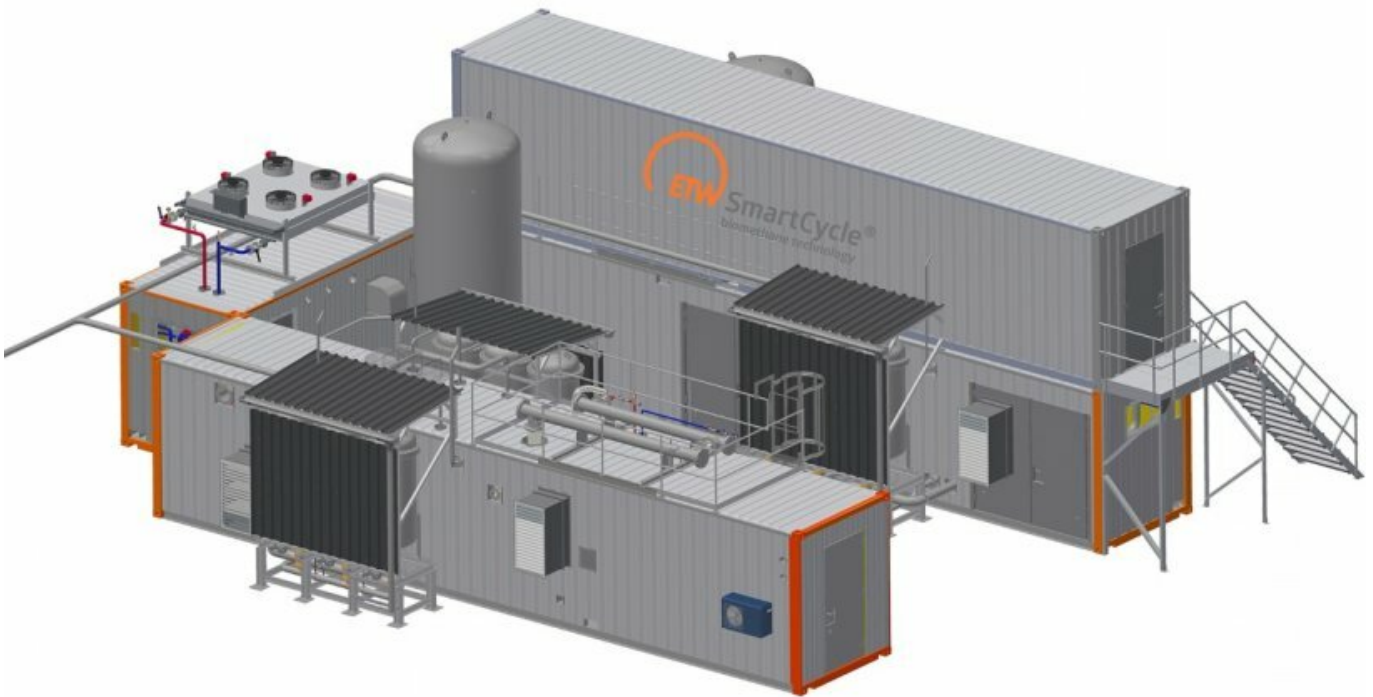




ETW plant model

IMAGE SOURCE: ETW Energietechnik GmbH

ETW Energietechnik wins contract for biomethane plant from Berliner Stadtreinigung (BSR)

9 February 2026 by ETW Energietechnik GmbH

- ETW Energietechnik has secured a contract to build a biomethane plant for Berliner Stadtreinigung (BSR) that processes up to 700 Nm³/h of landfill gas.
- The plant uses a specialized ETW process capable of converting landfill gas with high nitrogen content into biomethane suitable for feed-in.
- The facility is designed to handle fluctuating gas compositions and high levels of trace pollutants, ensuring stable operation across varying conditions.

- An integrated CHP unit will supply the plant's electricity needs using off-gas, boosting overall methane yield to over 95 percent.

Processing up to 700 Nm³/h landfill gas into biomethane

Berliner Stadtreinigungsbetriebe (BSR) is relying on technology from the Rhineland and is delighted to be taking a decisive step towards environmental protection and climate neutrality with the biomethane plant from **ETW Energietechnik GmbH** in Moers. The full-service provider of biomethane plants and combined heat and power (CHP) plants has been awarded the contract for a plant that will process up to 700 Nm³/h of landfill gas into biomethane in the future.

The plant concept was developed and planned by BSR in close cooperation with the planning office Rytec GmbH. Rytec brings extensive expertise in biogas production, biological and thermal waste treatment, energy technology and waste and landfill technology to the project.

ETW process converts landfill gas into biomethane

„With the ETW treatment process specially developed for landfill gas with a downstream nitrogen reduction unit (NRU), landfill gas with nitrogen contents of over 22 per cent can be converted into biomethane suitable for feed-in. Following the consistently positive operating experience of our first reference plant in Taranto, Italy, which has been running successfully for over a year, this new contract confirms the market's confidence in our engineering expertise and plant technology,” explains Alexander Szabo, Sales Manager at ETW Energietechnik.

Fluctuations in gas composition and quantity

Landfill gas is a special gas for processing. On the one hand, it has a very high concentration of trace pollutants (VOCs: volatile organic compounds) and siloxanes. On the other hand, the gas quality is not constant. This results in fluctuations in gas composition and gas volume. The longer a landfill site is in operation, the more methane is replaced by oxygen and nitrogen. In addition, the volume of gas is declining.

High demands on gas processing

This places very high demands on a biomethane plant for gas processing. The methane concentration is between 35 and 60 percent, the nitrogen and oxygen concentration is up to 23 percent, and the operating

range – i.e. the partial load capacity of the plant – is between 40 and 100 percent capacity.

Additional CHP unit covers own electricity requirements

In order to minimise the external electricity requirements of the biomethane plant, ETW is also supplying a CHP unit for its own electricity supply, which is also operated with the off-gas from the processing plant. This increases the methane yield of the entire plant to over 95 percent.

Source: ETW Energietechnik GmbH