



Pressemitteilung

Press release · Communiqué de presse

Vechta, September 2026

WELTEC BIOPOWER builds biomethane plant in Spain

Green energy for 11,700 households

Together with environmental services provider PreZero and Enagás Renovable, WELTEC BIOPOWER began construction of a biomethane plant north of Madrid in August 2026. Once operational, the plant in Colmenar Viejo will generate up to 60 gigawatt-hours of green energy annually, equivalent to the energy requirements of approximately 11,700 households or 30,000 residents.

The project has received all the urban planning and environmental permits required for construction. In addition to planning approval and the construction licence granted by the municipality of Colmenar Viejo, the plant has received Integrated Environmental Authorisation from the Community of Madrid. This confirms that the project meets the comprehensive technical and environmental requirements applicable to this type of facility.

The plant is being developed by PreZero and Enagás Renovable. PreZero, part of the Schwarz Group, which also includes Lidl and Kaufland, has extensive expertise in waste management and the biomethane sector. The company operates throughout Europe and manages waste generated by more than twelve million people in Spain and Portugal. As the Spanish market leader, PreZero produced more than 53 per cent of the country's biomethane in 2025. Enagás Renovable is a leading independent energy producer in Spain, focused on the development of renewable gases and decarbonisation solutions. The company currently drives a portfolio of more than 20 projects across the country, positioning itself as a key player in the energy transition.

The new facility will process up to 75,000 tonnes of organic waste annually. This will include separately collected household biowaste from the brown bin in Colmenar Viejo and surrounding municipalities. Organic material currently accounts for around 40 per cent of household waste by weight in the region. Instead of being sent to landfill, these valuable resources will be used to produce renewable biomethane.

At the heart of the plant in Colmenar Viejo are three stainless-steel digesters from WELTEC BIOPOWER, each measuring 25.34 metres in diameter and 10.05 metres in height, with a volume of 5,067 cubic metres. The tall tank design enables a high substrate throughput within a small footprint, thereby contributing significantly to the efficient use of the approximately 6,200-square-metre site.

A gas-tight pre-storage tank with a capacity of 1,177 cubic metres is situated upstream of the digestion process. It ensures a continuous supply of substrate and stable process conditions. Hygienisation ensures compliance with the statutory requirements governing the treatment of organic waste streams.

All biogas digesters and storage tanks are made of high-quality stainless steel and manufactured by WELTEC BIOPOWER using its tried-and-tested modular construction system. The components are industrially prefabricated and assembled on site, ensuring a consistently high level of production quality. The modular approach also enables efficient logistics and flexible scalability.

"Stainless steel is particularly resistant to corrosion under the demanding biological and chemical conditions found in the digestion process. This gives the plant a long service life, high operational reliability and low maintenance requirements," emphasises Alain Priser, International Sales Manager at WELTEC BIOPOWER.



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Organic energy worldwide

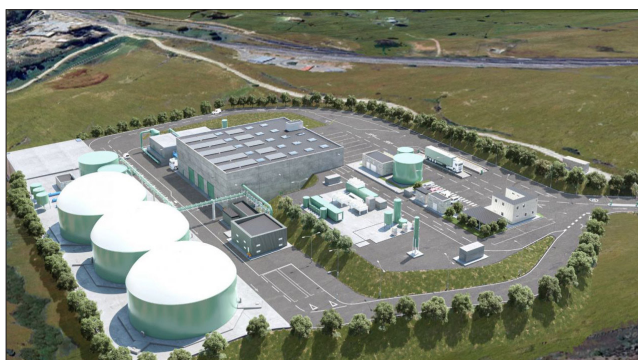
The facility will operate as a closed and sealed industrial system. Advanced biofilters and activated carbon systems are designed to remove up to 99 per cent of odorous substances from the exhaust air. The processed biomethane will be injected directly and continuously into the gas grid, eliminating the need to store it at the plant.

With the biomethane plant in Colmenar Viejo, the municipality and the Community of Madrid are taking a pioneering role in sustainable waste management and the circular economy. Currently, around 60 per cent of the region's waste is sent to landfill, leaving valuable resources unused. The new plant will help reverse this trend by converting regional organic waste into locally produced renewable energy. It will also support the European Union's objective of reducing the proportion of municipal waste sent to landfill to no more than ten per cent by 2035.

The project will also provide tangible benefits for Colmenar Viejo. A social agreement with the municipality provides for economic and community benefits. These include energy to support the heating of local public schools, the treatment of residents' separately collected organic waste at no charge and priority consideration for local residents when filling jobs created by the plant. An environmental education centre will further strengthen environmental awareness in the municipality.

By combining WELTEC BIOPOWER's proven plant technology with the waste management expertise of PreZero and the renewable gas expertise of Enagás Renovable, the project establishes an efficient regional cycle: organic residues are converted into renewable energy, landfill volumes are reduced and approximately 30,000 people can be supplied with green energy each year.

Visitors interested in this innovative plant type can obtain more information at WELTEC BIOPOWER's stand 276A at the Salon del Gas Renovable in Valladolid from 29 to 30 September 2026.



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Company Portrait

The WELTEC Group, based in Vechta, was founded in 2001. As a leading global supplier of biogas and biomethane plants, the German manufacturer provides comprehensive support for projects – from planning and construction to commissioning and individual service concepts.

Complete in-house development and the use of proven stainless steel technologies ensure goal-oriented planning, short installation times and the highest quality standards. WELTEC BIOPOWER has already implemented more than 450 energy plants in 27 countries worldwide – including Europe, the USA, South America, Asia and Australia.

Using a circular economy approach, unused organic raw materials are converted into sustainable energy. The customer structure has changed significantly since the company was founded. Initially, the focus was on constructing agricultural biogas plants that mainly processed manure and renewable raw materials such as maize. Currently, there is growing demand for industrial plants that utilise organic slaughterhouse and biowaste, residues from breweries and food production, and even sewage sludge.

The increasing focus on industrial, waste-based plants requires more complex technical processes: pathogens in the substrate must be sanitised, plastics removed via depackaging, and water recovered from the digestate through treatment. In its role as a full-service provider, WELTEC combines technological expertise with individual adaptation to the respective substrate input, thus positioning itself as a specialist for tailor-made biogas plant solutions.

In order to make the plant configuration process efficient and future-proof, the manufacturer is consistently driving forward the digitalisation and automation of its internal processes. This enables the company to accelerate the planning and implementation of tailor-made plant solutions while strengthening its competitiveness on the international market. With this strategic orientation, WELTEC is laying the foundation for continuing to realise innovative, sustainable and economical energy concepts for customers worldwide in the future.

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