

In Jaén, Enagás Renovable, Genia Bioenergy and Grupo Valora are developing a biomethane generation plant powered by pomace pastes (alperujo) and slurry

- The project, which helps promote decarbonisation and the circular economy, has been presented to the Territorial Delegation of Sustainable Development of the Andalusian Regional Government in Jaén
- The plant would convert up to 140,000 tonnes of organic waste into biogas each year and generate up to 60 GWh of biomethane
- This facility would also allow the production of some 80,000 tonnes of organic fertilisers and would save approximately 120,000 tonnes of CO₂ emissions per year

Enagás Renovable –a subsidiary of Enagás–, the energy engineering firm Genia Global Energy, and the waste management company Grupo Valora, have undertaken a project to promote the creation of a biomethane production plant in Jabalquinto (Jaén).

This project, which was presented to the Territorial Delegation of Sustainable Development of the Andalusian Regional Government in Jaén, contemplates the construction of a biogas production plant in the town of Jabalquinto, in Jaén.

The initiative thus contributes to the promotion of decarbonisation and the circular economy, thanks to waste recovery. Specifically, this facility would process up to 140,000 tonnes per year of different biowaste, including pig slurry, food industry waste, pomace pastes and process water, to convert them into biomethane equivalent to around 60 GWh of energy.

Furthermore, the plant's circular economy processes would make it possible to generate fertilisers and organic amendments –materials of plant and animal origin– aimed at improving the fertile capacity of crops and recovering degraded areas.

This natural process, agronomically safe and without odour or insect nuisance, would help solve the problem of managing biowaste that is particularly difficult to treat, such as slurry or pomace paste, which without being properly managed could contaminate soils or aquifers.

The project, which will create more than 15 direct, permanent and qualified jobs, will also generate an economic ecosystem that will benefit biowaste producers (oil mills, pig farms and the agri-food industry), transporters and farmers.

The implementation of this initiative, which would result in CO₂ emissions savings of approximately 120,000 tonnes per year, is in line with Europe's Circular Economy Plan –EU Directive 2018/850– on waste management, treatment and recovery for

municipalities, the Spanish Government's Climate Change and Energy Transition Law, the Integrated National Energy and Climate Plan (PNIEC) 2021-2030 and the Andalusia Energy Strategy 2030.

This project is in addition to the plan of Enagás Renovable, Genia Bioenergy and Grupo Valora to develop three additional projects in Andalusia, which would allow total biomethane production of 200 GWh/year.

Anaerobic biodigestion process

Biogas is obtained through a process of biodigestion of organic waste, called anaerobic biodigestion, a natural process that speeds up the production of this ecological gas with a high concentration of methane, thanks to the action of bacteria that live in the absence of oxygen.

Through an upgrading process, the resulting biogas is purified into biomethane, with similar characteristics to natural gas, so that it can be injected into the gas grid for distribution, which would allow homes, industries and vehicles to consume energy from renewable sources.

In Europe there are about 800 plants that inject biomethane into the distribution network and more than 19,000 that produce biogas for own consumption or cogeneration.

About Enagás

Enagás promotes the development of renewable gases –green hydrogen and biomethane– as key solutions for the energy transition through its subsidiary, Enagás Renovable, and develops energy efficiency and sustainable mobility projects in this field, among others.

Enagás has 50 years' experience in the development, operation and maintenance of energy infrastructure, and operates in eight countries. It is also certified as a Transmission System Operator (TSO) by the European Union. Enagás has pledged to be carbon neutral by 2040 and is firmly committed to the decarbonisation process.

Among other acknowledgements, the company is the world leader in its sector on the Dow Jones Sustainability Index (DJSI), according to its latest review. It is also included in the S&P Global Ratings in the ESG area and has obtained the highest rating in CDP's Climate Change ranking.

About Genia Bioenergy

Genia Bioenergy is the subsidiary of the Genia Global Energy Group, headquartered in Valencia, dedicated to developing, designing, constructing and operating facilities for the production and upgrading of renewable gas. The Group aims to propose new models and technologies for the generation, use and management of energy based on sustainability and renewable sources.

Genia Bioenergy is a company dedicated to Bio-engineering, specialised in renewable gases, biogas, biomethane and organic waste recovery processes ("Waste2Energy"). It has experience in all stages of the energy business, from conceptual or basic engineering, project development, detailed engineering, construction and operation of biogas and biomethane plants, and has the technical and human resources for the comprehensive development of projects, from the identification of opportunities to the location, promotion and administrative processing, project management, construction and operation and maintenance of renewable gas projects.

Genia Bioenergy has extensive experience in the design and execution of projects of varying complexity involving biogas and biomethane for large national and international clients, as well as participation in various R&D&i projects associated with bioenergy.

About Grupo Valora

It is an Andalusian company specialised in the management, use and recovery of all the resources available in the market for their treatment and transformation into substrates, fertilisers and improved soils, essential for the necessary organic recovery of agricultural soils and the correct restoration of environmentally degraded land and spaces. Grupo VALORA is headquartered in El Puerto de Santa María (Cádiz) and has offices throughout Spain.