# ENAGÁS RENOVABLE AND GENIA BIOENERGY PRESENT 'THE GREEN VECTOR' PLATFORM TO BOOST BIOMETHANE IN SPAIN

- The Green Vector (TGV) plans to deploy at least 10 biomethane production plants by 2030 with the capacity to produce up to 1 TWh of renewable energy each year.
- These ten plants will enable the sustainable management of more than 1.5 million tonnes of waste, thus avoiding the emission of more than 1.8 million tonnes of $CO_2$ equivalent into the atmosphere.
- One of TGV's goals is to bring together all the players in the waste recovery chain, from waste producers and managers to biomethane consumers.

*Madrid, 28 February 2023.* Enagás Renovable and Genia Bioenergy announced today in Madrid the creation of a joint venture to create 'The Green Vector' (TGV), a platform to promote the development of biomethane from organic waste in Spain. The initiative involves all players in the waste recovery chain, including the production, distribution and final consumption of biomethane.

In this presentation **Antón Martínez, CEO of Enagás Renovable**, and **Gabriel Butler, CEO of Genia Bioenergy**, were accompanied by **Joan Groizard, IDAE General Manager**, and **Naiara Ortiz, Sedigas Secretary General**.

This initiative, which aims to promote decarbonisation, the circular economy and the reduction of energy dependence, is in line with the Spanish Government's Biogas Roadmap, the Integrated Strategic Energy and Climate Plan (PNIEC), the National Air Pollution Control Programme (PNCCA), and the European targets set by the REPowerEU Plan and the European Energy and Environment Framework 2030.

Through a collaborative platform model, TGV plans to implement at least 10 biomethane production plants by 2030 with the capacity to produce up to 1 TWh of renewable energy each year and to sustainably manage more than 1.5 million tonnes of waste, thus avoiding the emission of more than 1.8 million tonnes of $CO_2$ equivalent into the atmosphere. TGV will thus contribute to changing the model of management and recovery of organic waste, which will be converted into gas of renewable origin using the anaerobic biodigestion technique.

The CEO of Enagás Renovable, Antón Martínez, stressed that "The Green Vector will provide a decisive boost to the management of organic waste and the production of gas from renewable sources in Spain, doing so in a collaborative manner and integrating the different agents in the sector."

The circular economy model that these plants will introduce will make it possible to generate a network that integrates all the agents in the waste recovery chain - composters, waste managers, farmers, livestock farmers, agri-food industry - and connects them with the town councils of the different localities and areas close to the location of the plants.

According to Gabriel Butler, CEO of Genia Bioenergy, "among TGV's goals is to drive the decarbonisation of the economy by offering energy from renewable sources in a process that wants to give a role to all actors in waste and biomethane management."

**Five new biomethane plants in Spain by 2026**

The Green Vector is currently promoting five new biomethane production facilities in Spain, with planned commissioning dates until 2026.

In November 2021, the two companies announced the first of the projects: the construction of a biomethane plant in Vencillón (Huesca). This facility, scheduled to begin construction in 2024 and with an estimated investment of more than 15 million euros, will be capable of digesting more than 140,000 tonnes of organic waste (mainly manure) and converting it into biomethane with an energy capacity of almost 100 GWh each year, thus avoiding the emission of approximately 150,000 tonnes of $CO_2$ equivalent into the atmosphere per year.

In November 2022, the construction of a biomethane plant in Lugo was announced, with an energy capacity of more than 100 GWh per year, which will enable the conversion of around 150,000 tonnes of bio-waste into renewable energy per year.

Of the remaining plants, two are in Valencia, one with a recovery of up to 180,000 tonnes of organic waste to produce more than 80 GWh of energy per year, and the other with a planned energy production of 100 GWh from 130,000 tonnes of bio-waste per year. The fifth planned plant is in Albacete, with a valuation of 100,000 tonnes of organic waste to also produce more than 80 GWh per year. All of them have the land identified and secured.

The objective of the two companies is to expand this network of facilities with new projects that will be announced as the locations are finalised and the corresponding processing process is initiated.

TGV brings together, on the one hand, Enagás Renovable's experience in the development and promotion of renewable gases and, on the other, Genial Bioenergy's technology and capacity to manage and integrate all the players in the waste recovery chain.

**Sustainable economic ecosystems in rural environments**

The biomethane production plants developed by TGV will generate economic ecosystems around waste (with specific treatment and recovery processes) that will contribute to the sustainable development of society, especially in rural areas. These facilities will generate circular economy models, which will create jobs, investment and boost local economic growth, while reducing the environmental impact of waste management.

**How biomethane is generated**

Biogas is obtained through a process of biodigestion of organic waste, called anaerobic biodigestion, a natural process that speeds up the production of this renewable 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 Renovable**

Enagás Renovable has a portfolio of more than 50 specific projects in Spain in the field of renewable gases and decarbonisation, representing one of the largest European platforms for renewable gas projects. The company's shareholding structure currently comprises Enagás (60%), Hy24 -a joint venture formed by Ardian and FiveT Hydrogen- (30%), Pontegadea (5%) and Navantia-SEPI- (5%).

Enagás Renovable already has several pioneer projects, including the start-up of the first industrial green hydrogen plant in Spain, located in Lloseta (Majorca), and the start-up of the "UNUE" biomethane production plant in Villalonquéjar (Burgos), the latter being the first large-scale biomethane project to be carried out in Spain by a private initiative.

**About Genia Bioenergy**

Genia Bioenergy is the subsidiary of the Genia Global Energy Group, dedicated to developing, designing, constructing and operating facilities to obtain 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 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.

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