press release





Sausheim, November 24, 2021

REGIONAL ENERGY TRANSITION:

In France, Mulhouse region's SIVOM and SUEZ inaugurate a methanization unit in Sausheim to recover 100% sewage sludge into green gas

On Wednesday November 24, Francis Hillmeyer, President of Mulhouse region's SIVOM (Multipurpose Intercommunal Syndicate) and Maximilien Pellegrini, Deputy Chief Executive Officer of SUEZ in charge of France, inaugurated a methanization unit, in the presence of Fabian Jordan, President of the Mulhouse Alsace Agglomeration. Located in the heart of the Sausheim (East of France) ecohub, the unit will make it possible to recover 100% of sludge from the wastewater treatment plant to supply green gas for the equivalent of 125 buses in the agglomeration.

Operational since December 2020, the Sausheim methanization unit treats the sewage sludge of an equivalent of 490,000 inhabitants and produces 2,000,000 Nm³ of purified biomethane each year. This green gas will supply 44 buses of the Mulhouse agglomeration by 2022, compared with 22 today. For the moment, the biomethane not consumed by the buses is intended for the buildings of the Mulhouse Alsace Agglomeration. The entire bus fleet will run on biomethane by 2034.

The installation fully meets the agglomeration's energy transition needs by reinforcing the energy complementarity between the wastewater treatment plant and the energy-from-waste plant. Indeed, the methanization unit recovers in green energy 100% of sewage sludge by using the waste heat produced by the energy-from-waste plant to maintain the two methanization tanks at constant temperature (37°C). The digested sludge recovered from the anaerobic digester is centrifuged and its solid residue is treated within the energy-from-waste plant.

This process complements the ecohub's existing energy markets, namely electricity production for the self-consumption of the two sites, steam production for the "Papèteries du Rhin" paper mills, and supply of the hot water network for municipality heating.

Phosphorus recovery: a national first

The methanization unit is equipped with a phosphorus recovery system, thanks to a unique process in France developed by SUEZ: "PhosphogreenTM"—which recovers phosphorus in liquid digestates from the methanization of sludge from the wastewater treatment plant, via a precipitation-crystallization reaction. The recovered phosphorus, called struvite, takes the form of 1 to 3 mm granules, and is used for agricultural purposes to fertilize the soil. Each year, nearly 90 metric tons of struvite will be recovered.

The production of this bio-based fertilizer contributes to the preservation of this resource. Indeed, according to the United Nations, the consumption of phosphorus, essentially linked to the food industry and agriculture, is expected to increase 70% by 2050, resulting in a shortage within 100 years. Faced with this observation,

the "Phosphogreen™" technology represents an alternative: 20%¹ of the current European demand for phosphorus could be covered by phosphorus recovery from wastewater.

Francis Hillmeyer, President of Mulhouse region's SIVOM: "The completion of this project is a major element in the energy transition policy implemented throughout the Greater Mulhouse agglomeration. The entire Sausheim site, which includes the energy-from-waste plant and the wastewater treatment plant, is progressively evolving to become a major actor in the circular economy and renewable energy production, by mixing production of electricity, steam, gas and fertilizer."

Maximilien Pellegrini, Deputy Chief Executive Officer of SUEZ in charge of France: "The Sausheim methanization unit illustrates SUEZ's capacity for innovation and its commitment to its customers. By creating local circular economy loops from wastewater and waste, and by recovering phosphorus, SUEZ is providing the best support to local communities in their energy transition."

Sausheim methanization unit – key figures:

A sewage sludge treatment capacity equivalent to **490,000** inhabitants; An annual green gas production of **2,000,000 Nm³**, equivalent to the consumption of **125** urban transport buses in the Mulhouse agglomeration;

A **30%** reduction in sludge to be incinerated;

An annual production of **3,500** bags of struvite, representing **88** metric tons of struvite.

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About Mulhouse Region's SIVOM

Mulhouse region's SIVOM is a public institution of intercommunal cooperation. It undertakes public service missions in the fields of selective collection and waste treatment, as well as the collection and purification of wastewater. The SIVOM is a privileged partner of the municipalities and today brings together 53 municipalities, representing a population of approximately 288,000 inhabitants. The municipalities or groups of municipalities modulate their membership according to the missions which interest them.

About SUEZ:

Since the end of the 19th century, SUEZ has built expertise aimed at helping people to constantly improve their quality of life by protecting their health and supporting economic growth. With an active presence on five continents, SUEZ and its 90,000 employees strive to preserve our environment's natural capital: water, soil, and air. SUEZ provides innovative and resilient solutions in water management, waste recovery, site remediation and air treatment, optimizing municipalities' and industries' resource management through "smart" cities and improving their environmental and economic performance. The Group delivers sanitation services to 64 million people and produces 7.1 billion m³ of drinking water. SUEZ is also a contributor to economic growth, with more than 200,000 jobs created directly and indirectly on an annual basis, and a provider of new resources, with 4.2 million tons of secondary raw materials produced. By 2030, the Group is targeting 100% sustainable solutions, with a positive impact on our environment, health and climate. SUEZ generated total revenue of €17,2 billion in 2020.

Find out more about the SUEZ Group on the <u>website</u> & on social media









¹ Source: P-Rex phosphorus recovery research project led by European Research Cluster, Biorefine