

PRESS RELEASE

EnviTec's 23 Years of Expertise Optimize Chicken Manure for RNG in the US Market Untapped biogas market is ripe for expansion

January 22, 2025: Germany's largest biogas producer, EnviTec Biogas AG, has been leveraging chicken manure for the production of biogas, renewable natural gas (RNG), and bio-Liquidified Natural Gas (LNG) for an impressive 23 years. The company is now actively exploring opportunities in the growing U.S. market for the anaerobic digestion of poultry manure, aligning its expertise with the increasing demand for sustainable waste-to-energy solutions.

Olaf von Lehmden, CEO of EnviTec Biogas AG knows the market potential associated with chicken farming and egg production intimately. Von Lehmden, through ventures EiPro and Deutsche Frühstücksei, is responsible for the production of approximately 7.5 million eggs per day. Recognizing the environmental and economic challenges of managing large-scale poultry operations, von Lehmden founded EnviTec Biogas to harness the multifaceted benefits of biogas as a sustainable solution for monetizing and mitigating poultry waste. By utilizing residual materials like poultry manure as feedstock for anaerobic digestion plants, the company demonstrates its commitment to innovation and sustainability.

“The market for the profitable utilization of chicken manure in biogas and gas upgrading plants is currently underdeveloped in the US” remarks Timothy Logan, President of EnviTec Biogas Construction. “Chicken manure is already a valuable fertilizer in its unprocessed state, which naturally results in less exploration of treatment via AD. Coupled with the fact that dairy manure AD plants have developed at a much faster rate due to the higher commodity value and easier digestibility of dairy manure, it’s not surprising that chicken manure AD plants have progressed more slowly.” The market potential for chicken manure in the U.S. is so significant that, combined with EnviTec’s extensive expertise in processing this specialized feedstock, several projects are already in the planning stages.

“Available research suggests there are over 30 million tons of broiler and layer manure generated in the US each year. This is an incredible figure that equates to a potential of over 400 million British thermal units (mmBtu) per day, which equals the heating demand of approximately 3.7 million homes.” adds Stefan Dehne, General Manager of EnviTec Biogas

Construction. Based on current D3 RIN pricing, the market potential of the gas alone in the US approaches 4.5 billion dollars per year, the biogas expert says.

“We’re excited in the US to be buoyed by the EnviTec story in Germany. Indeed, with our innovative integration of ammonia stripping technology, we have the potential to create an additional revenue stream of ammonium sulfate in the US. When you stack this value with the gas and the nutrient dense compost from the manure, the economics begin to look particularly profitable,” Logan explains.

Stefan Dehne, General Manager of EnviTec Biogas Construction, an 18 year veteran of the EnviTec cautions that the chicken manure concept must be well thought out on the front end. “It’s imperative to work with the correct data that are realistic, repeatable and defensible in order to ensure project success. The feedstock mass balance must be fully vetted and the revenue streams and costs should be secured for as long as practical.” EnviTec Biogas USA is currently developing several scenarios for potential customers.

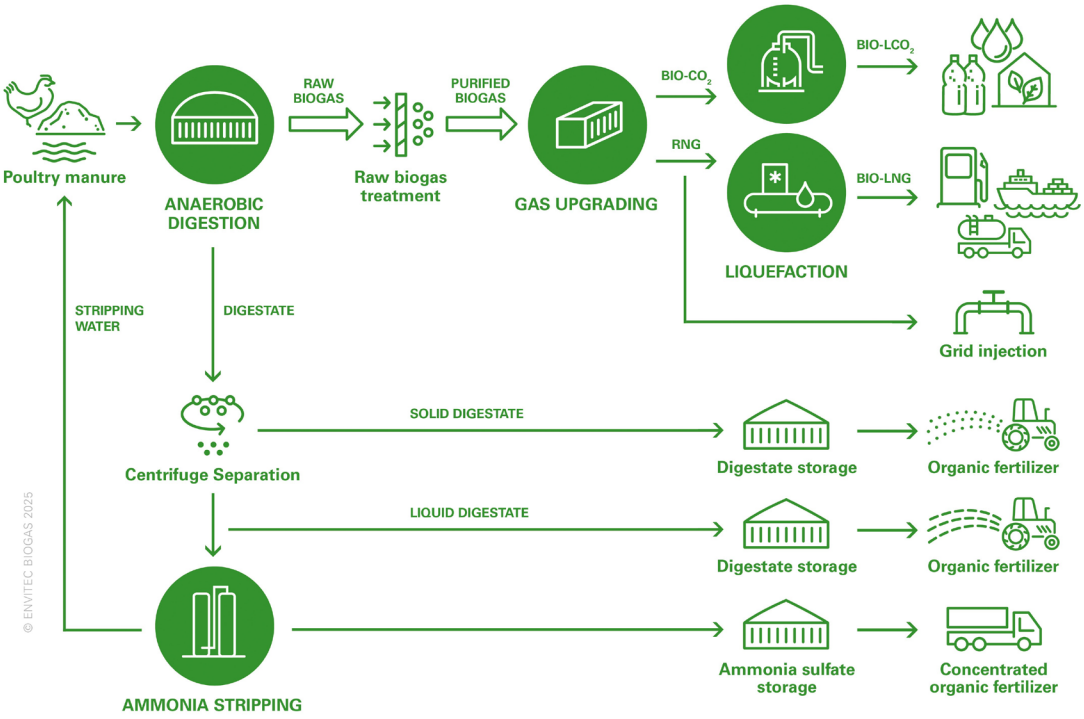
A reliable technology partner with deep operational experience

One large scale example of utilizing chicken manure for the production of renewable energy and sustainable green fuels for the transportation sector is Germany’s largest fully integrated bio-LNG liquefaction plant in Güstrow. EnviTec Biogas acquired the Güstrow biogas plant in 2021 and retrofitted the facility to process chicken manure as its primary feedstock. The plant currently processes over 110,000 tons of chicken litter feedstock annually. The resultant biogas is upgraded via membrane technology to RNG and compressed to LNG at the facility and the CO₂ rich off- gas from the upgrading plant is further refined and condensed into liquefied CO₂ (LCO₂). EnviTec is continuing to expand the revenue streams from the plant by incorporating an innovative ammonia scrubbing system to the digestate, creating an additional revenue stream in ammonium sulfate as well as reducing the amount of make up water required for the anaerobic digestion process.

EnviTec Biogas AG owns and operates 87 plants as part of its own-operate portfolio, with at least 12 of those plants utilizing chicken manure as a feedstock. EnviTec is able to leverage this experience to support the developing chicken manure to AD industry in the US.



Guestrow Biogas Plant, Online (Gas to Grid): 9/14/2023



Chicken Manure Plant Schematic, Example Layout

About EnviTec Biogas USA Inc.

EnviTec Biogas USA Inc. is an independent subsidiary of EnviTec Biogas AG, Germany. Based in Beaverton, Oregon, the company covers the entire value chain to produce renewable natural gas, heat and power: this includes the planning and construction of anaerobic digestion and biogas upgrading plants as well as their commissioning. If required, the company handles biological and technical services and offers operational management. The parent company operates 87 of its own plants, making it the largest biogas producer in Germany. EnviTec's business activities also include the production and marketing of climate neutral fuels (bio-LNG) for the transport sector as well as food-grade liquid carbon dioxide (LCO₂). The company is represented in 16 countries worldwide with its own companies, sales offices, strategic cooperations, and joint ventures. In the USA, EnviTec has offices and warehouses in Rochester in New York and Watertown in South Dakota and is headquartered in Beaverton, Oregon. In 2023, the EnviTec Group generated revenue of USD 429.29* million and EBT of USD 90.84* million. The Group currently employs some 690 people. EnviTec Biogas AG has been listed on the Frankfurt Stock Exchange since July 2007.

*Rate as of Jan 3, 2025

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