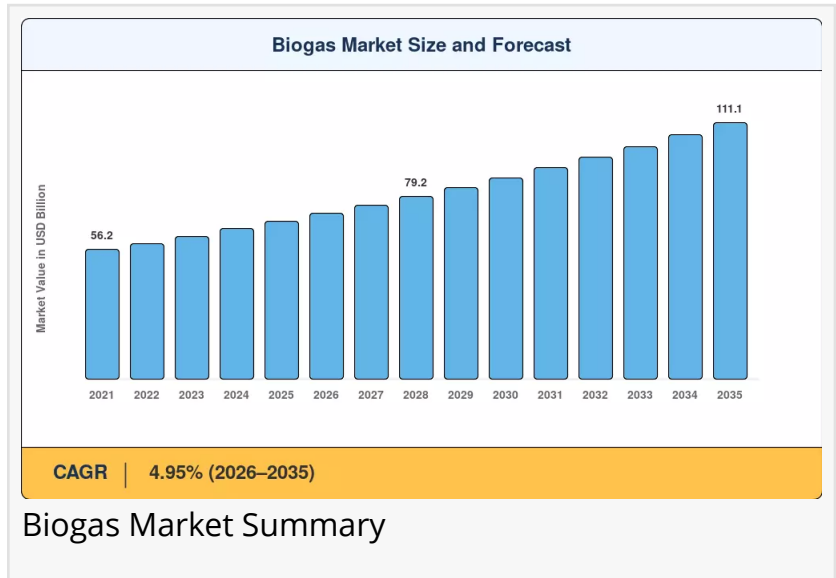


Biogas Market Share Projected to Grow from USD 71.9 Billion to USD 111.1 Billion, at a 4.95% CAGR During 2026 To 2035

Wet anaerobic digestion represented 63.5% of global installations in 2025, remaining the default technology for liquid-heavy feedstocks.

NY, CA, UNITED STATES, July 15, 2026 /EINPresswire.com/ -- Biogas is a renewable gaseous fuel produced through the anaerobic digestion of organic matter, including agricultural waste, animal manure, municipal solid waste, and industrial organic residues. Composed primarily of methane (50–70%) and carbon dioxide, biogas can be used directly for electricity and heat generation or upgraded to biomethane (renewable natural gas) for injection into natural gas networks or use as a vehicle fuel. The market encompasses the full value chain from feedstock collection and digestion technology to gas upgrading and end-use applications.



Livestock manure accounted for 40.0% of the Biogas Market in 2025, reflecting the large installed base of agricultural digesters across Europe and North America.”

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Biogas Market Overview

The [global Biogas Market share](#) was valued at USD 68.5 billion in 2025 and is projected to grow from USD 71.9 billion in 2026 to USD 111.1 billion by 2035, registering a CAGR of 4.95% during the forecast period (2026–2035). Strengthening renewable fuel mandates and accelerating corporate net-zero timelines are channeling fresh capital into anaerobic digestion infrastructure across every major

geography. The European Commission's revised Renewable Energy Directive (RED III), which sets binding biomethane blending targets for gas grid operators, exemplifies the policy tailwinds underpinning this expansion.

Industry trends indicate a decisive pivot from electricity-only generation toward upgraded renewable natural gas (RNG) suitable for pipeline injection and transport fuel use. Operators are moving beyond power-only to multi-product plants, raising average project IRRs by 3–5 percentage points. The U.S. EPA's Renewable Fuel Standard (RFS) program allocated over USD 7.2 billion in compliance credits to biogas-derived RNG producers between 2022 and 2024, incentivizing dairy farms and food-waste processors to invest in gas-upgrading equipment. Membrane separation and pressure-swing adsorption systems are achieving methane purity above 97% at declining per-unit costs.

Technological developments are reshaping the market landscape. Modular, containerized digester units rated at 50–250 kW are enabling rapid deployment in emerging markets without the civil-engineering timelines of conventional concrete-tank plants. AI-driven plant operations using real-time monitoring platforms with IoT sensors and machine-learning algorithms are increasing methane yields by 5–10% and reducing unplanned downtime by up to 30%. Power-to-gas integration, where biogas plants couple with electrolyzers to convert surplus renewable electricity into additional methane through biological methanation, can increase output by 25–40% without requiring additional feedstock.

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Biogas Market Segmentation

By Feedstock

Livestock Manure: Accounted for 40.0% of the market in 2025, reflecting the large installed base of agricultural digesters across Europe and North America

Food and Beverage Waste: Expanding at a 7.65% CAGR through 2035, driven by landfill diversion mandates and tipping-fee economics

Agri Residues: Valued at USD 13.2 billion, supported by crop-stubble burning bans in Asia

Other Feedstocks: Growing at 4.80% CAGR including sewage sludge and industrial organics

By Process Technology

Wet Anaerobic Digestion: Represented 63.5% of global installations in 2025, remaining the default technology for liquid-heavy feedstocks

Dry Anaerobic Digestion: Fastest-growing technology at 8.10% CAGR, attracting investment in regions with abundant crop residue supply

Landfill Gas Recovery: Valued at USD 7.8 billion, driven by regulatory closure of uncontrolled emissions

By Plant Capacity

Below 0.5 MW: Fastest-growing at 8.60% CAGR, driven by community-scale distributed

generation incentives

0.5 to 2 MW: Held 47.5% share for mid-scale agricultural and municipal projects

Above 2 MW: Valued at USD 11.9 billion for centralized co-digestion hubs and industrial waste

By Application

Electricity Generation: Led with 54.9% share, driven by feed-in tariffs and CHP incentives

Vehicle Fuel / RNG: Fastest-growing at 9.20% CAGR, supported by transport decarbonization mandates

Heat Generation: Valued at USD 9.4 billion for district heating integration in Northern Europe

Other Applications: Includes industrial process heat and cooking fuel

Competitive Landscape / Key Players

The Biogas Market remains fragmented, with an estimated Herfindahl-Hirschman Index below 600 and the top five players collectively holding approximately 22-28% revenue share.

Competition spans vertically integrated EPC firms, technology licensors, project developers, and utility-backed platforms.

EnviTec Biogas AG (~5-8% revenue share): Offers turnkey plant construction, O&M, and own-and-operate services as a vertically integrated developer-operator.

Air Liquide S.A. (~4-6%): Provides gas upgrading, biomethane purification, and distribution with downstream gas-processing expertise.

Weltec Biopower GmbH (~3-5%): Specializes in stainless-steel digester systems and international EPC for mid-scale agricultural and industrial plants.

PlanET Biogas Global GmbH (~3-5%): Delivers modular plant design and feedstock consulting with technology-led project delivery.

Hitachi Zosen Inova AG (~3-5%): Focuses on large-scale waste-to-energy and dry digestion for industrial and municipal anchor projects.

Other notable players include BTS Biogas Srl, Gasum Oy, Nature Energy (Shell), Scandinavian Biogas Fuels International AB, and Agrinz Technologies GmbH. Recent developments include EnviTec commissioning a 5.2 MW co-digestion facility in Lower Saxony processing 120,000 tonnes/year of food waste, and Air Liquide signing a 15-year biomethane offtake agreement securing 40 GWh/year of pipeline-quality gas production.

Latest Industry News & Developments

EnviTec Biogas AG (March 2025): Commissioned a 5.2 MW co-digestion facility in Lower Saxony processing 120,000 tonnes/year of food waste and cattle slurry, the company's largest single-site installation to date.

European Commission (January 2025): Published implementing rules for the Biomethane Industrial Partnership, targeting 35 bcm of EU biomethane production by 2030 and unlocking EUR 18 billion in anticipated private investment.

U.S. Department of Agriculture (September 2024): Awarded USD 128 million in grants under the Rural Energy for America Program to 47 biogas and RNG projects across 19 states.

Air Liquide (June 2024): Signed a 15-year biomethane offtake agreement with a French agri-cooperative consortium, securing 40 GWh/year of pipeline-quality gas production.

Hitachi Zosen Inova (January 2024): Completed integration of dry-digestion technology from its Kompoferm acquisition, deploying the first combined wet-dry anaerobic system at a Swiss municipal waste facility.

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Biogas Market Regional Analysis

Europe

Europe held 60.3% of the market share in 2025, anchored by feed-in tariff regimes and grid-injection capacity. Germany accounts for 34.8% of regional share with the largest installed base and EEG tariff extensions. France is accelerating rapidly under its Plan Biogaz, targeting 6 TWh of biomethane injection by 2028. The UK's Green Gas Support Scheme, launched in 2022, guarantees quarterly tariff payments for biomethane producers injecting into the National Transmission System. Italy's upgraded biomethane for transport incentives and Spain's PNIEC national energy plan targets further contribute to regional leadership.

Asia-Pacific

Asia-Pacific holds the second-largest position with a 16.8% share, led by China's rural digester modernization campaign. China accounts for 38.2% of regional share with the world's largest fleet of household-scale digesters and is now prioritizing medium-scale centralized facilities. India's SATAT initiative targets 5,000 compressed biogas plants by 2028, backed by guaranteed offtake pricing and viability-gap funding, supporting a 7.80% CAGR. Japan's food-waste recycling laws channel waste into high-efficiency thermophilic digestion systems.

North America

North America holds 15.2% share, with the U.S. accounting for 72.4% of regional share. The U.S.

has over 2,300 operational systems processing livestock manure, food waste, and wastewater biosolids. California's LCFS credit prices averaged USD 72 per tonne in 2024, making dairy-RNG projects among the highest-return renewable investments. Canada's Clean Fuel Regulations add a parallel compliance demand for low-carbon gaseous fuels, while Mexico's agro-industrial waste and energy reform incentives support a 5.85% CAGR.

South America

South America is the fastest-growing region at a projected 10.15% CAGR, fueled by Brazil's RenovaBio decarbonization credit system. Brazil accounts for 68.5% of regional share, with vast sugarcane and swine-farming sectors generating feedstock volumes sufficient to support an estimated 1,800 additional commercial biogas plants. Argentina's PROBIOMASA program is developing regional biogas clusters across the Pampas.

Middle East & Africa

South Africa leads the MEA region through its REIPPPP framework, which has awarded multiple biogas concessions since Round 5. The UAE's Ministry of Climate Change and Environment has mandated food-waste segregation in commercial establishments, channeling an estimated 1.5 million tonnes of organic waste annually toward anaerobic digestion. Saudi Arabia's municipal solid waste management plans and Egypt's agricultural residue from Nile Delta farming support regional growth.

Biogas Market Challenges & Opportunities

Key Restraints

High upfront capital costs for digester systems, with a typical 1 MW plant requiring USD 4-7 million, create significant barriers in developing economies. Feedstock supply-chain fragmentation, particularly in emerging markets where agricultural residue collection depends on informal networks, introduces seasonal variability of 20-30% in delivered tonnage. Permitting and environmental compliance delays under state-level frameworks can take 12-24 months in the U.S. and have extended timelines in Germany. Competition from solar and wind for subsidy allocation and digestate disposal regulations further constrain growth.

Emerging Opportunities

RNG pipeline injection at scale through biomethane upgrading technology that has matured rapidly, with membrane separation and pressure-swing adsorption systems achieving methane purity above 97% at declining costs. Emerging-market leapfrogging through modular systems is enabling rapid deployment in Sub-Saharan Africa and Southeast Asia without civil-engineering timelines. Carbon-credit stacking and revenue diversification through electricity sales, RNG

commodity revenue, LCFS or ETS credits, digestate fertilizer sales, and tipping fees are building projects with blended IRRs of 14-18%. Data-driven yield optimization and digital business models through IoT sensors and machine-learning algorithms are creating new SaaS-based plant management tools. Hydrogen blending and power-to-gas integration through biological methanation can increase plant output by 25-40%.

Future Potential

AI-driven plant operations and autonomous digester management will enable real-time feed-rate adjustment and predictive equipment-failure detection, with estimates suggesting 8-12% higher methane yields. Platform economics and feedstock aggregation marketplaces are emerging across Europe and North America, reducing procurement costs by 10-15% through transparent bidding and logistics optimization. The electrification supercycle and sector coupling will see 18 GW of electrolyzer capacity coupled with biogas facilities by 2035, enabling operators to absorb surplus renewable electricity. ESG reporting mandates and institutional capital inflows have allocated more than USD 4 billion to biogas and biomethane assets since 2022.

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The global Biogas Market is positioned for steady growth, with projections indicating expansion from USD 71.9 billion in 2026 to USD 111.1 billion by 2035, registering a 4.95% CAGR. Market dynamics are driven by the convergence of renewable fuel mandates, carbon-credit monetization, and landfill diversion policies. The shift from electricity-only generation to multi-product RNG and biomethane platforms is transforming the market landscape.

Europe dominates with 60.3% share, anchored by Germany's vast installed base and REPowerEU biomethane targets, while South America delivers the fastest regional growth at 10.15% CAGR fueled by Brazil's RenovaBio credit system. Asia-Pacific follows with 16.8% share, driven by China's digester modernization and India's SATAT initiative. While challenges including high capital costs and feedstock fragmentation persist, the long-term industry outlook remains robust, supported by the essential role of biogas in enabling waste management, renewable energy generation, and transport decarbonization. The decade ahead will reward players who combine feedstock aggregation with carbon-credit monetization and dispatchable grid services, positioning the Biogas Market as a critical pillar of the circular economy and energy transition.

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