+357 96 030922
info@marketpublishers.com

Renewable Natural Gas (RNG) Market Forecasts to 2034 – Global Analysis By Feedstock Source (Agricultural Waste, Food Waste, Municipal Solid Waste (MSW), Wastewater Sludge, Forestry Residues and Landfill Gas), Production Process, Distribution Mode, Application, End User and By Geography

https://marketpublishers.com/r/R12D23EE8DBCEN.html
Date: June 2026
Pages: 200
Price: US$ 4,150.00 (Single User License)
ID: R12D23EE8DBCEN

Abstracts

According to Stratistics MRC, the Global Renewable Natural Gas (RNG) Market is accounted for $17.7 billion in 2026 and is expected to reach $32.8 billion by 2034 growing at a CAGR of 8.0% during the forecast period. Renewable Natural Gas (RNG) refers to a low-carbon gas derived from decomposing organic materials including farm waste, municipal solid waste, and sewage. It is created when biogas undergoes purification to remove impurities, resulting in high-purity methane compatible with existing gas grids. By preventing methane release and substituting fossil fuels, RNG significantly lowers environmental impact. Its versatility allows use in vehicles, electricity production, and building heating systems without requiring new distribution networks. Increasing environmental regulations, incentives, and corporate sustainability goals are accelerating investment and deployment of RNG solutions across global energy markets in many regions today with strong policy backing worldwide.

According to the International Energy Agency (IEA), sustainable biomethane potential is close to 1 trillion cubic meters annually, equivalent to about 20–25% of today's global natural gas demand.

Market Dynamics:

Driver:

+357 96 030922
info@marketpublishers.com

Rising demand for low-carbon and sustainable energy sources

Growing emphasis on sustainability and carbon reduction is fueling the demand for Renewable Natural Gas (RNG) across the world. Various industries and energy providers are transitioning toward environmentally friendly fuel options to comply with strict emission standards. RNG stands out as a viable alternative due to its ability to lower greenhouse gas emissions and utilize waste resources efficiently. Businesses are increasingly incorporating RNG into their operations to meet environmental, social, and governance objectives. Additionally, rising public awareness about climate issues supports the shift toward cleaner fuels. This strong demand for sustainable energy solutions is significantly boosting the expansion of the RNG market worldwide.

Restraint:

High production and upgrading costs

Elevated costs associated with producing and refining Renewable Natural Gas (RNG) pose a major challenge to market growth. Transforming organic waste into usable gas involves complex processes and expensive equipment, leading to higher capital and operational expenditures. Advanced purification technologies further add to the financial burden, reducing competitiveness with fossil-based natural gas. Smaller facilities face additional difficulties due to lack of scale efficiency. Long investment recovery periods and limited funding opportunities can deter stakeholders. These financial barriers restrict widespread adoption, especially in developing regions where economic resources and supportive infrastructure for renewable energy projects remain limited or inconsistent over time.

Opportunity:

Expansion in transportation fuel applications

The increasing adoption of Renewable Natural Gas (RNG) in the transportation sector creates strong growth opportunities. It is being widely used in buses, trucks, and commercial fleets as a cleaner substitute for traditional fuels like diesel. Supportive government policies and emission reduction targets are encouraging its usage. RNG’s compatibility with existing CNG and LNG systems makes integration easier for fleet operators. As transportation industries focus on lowering their environmental impact without compromising efficiency, RNG emerges as a viable solution. This trend is

+357 96 030922
info@marketpublishers.com

expected to drive significant market expansion, particularly in regions emphasizing sustainable mobility and cleaner fuel alternatives for public and private transport networks.

Threat:

Policy uncertainty and regulatory changes

Changing regulations and uncertain policy environments pose a risk to the Renewable Natural Gas (RNG) market. Government support mechanisms such as subsidies and incentives can vary over time, affecting project feasibility. Sudden policy shifts or delays in implementation can disrupt investments and operational plans. Differences in regulatory standards across regions also create challenges for developers. This lack of consistency reduces investor confidence and may hinder innovation. Without reliable and stable policies, market expansion becomes difficult. Ensuring clear, predictable regulations is crucial to maintaining steady growth and minimizing risks associated with policy fluctuations in the global RNG industry.

Covid-19 Impact:

The outbreak of COVID-19 created both challenges and opportunities for the Renewable Natural Gas (RNG) market. Early disruptions included halted construction, logistical constraints, and delays in project execution due to restrictions and workforce limitations. Lower industrial activity and reduced mobility led to a temporary decline in energy demand, impacting RNG consumption. Despite these setbacks, the crisis emphasized the need for cleaner and more reliable energy sources. Governments introduced recovery measures that prioritized sustainability, encouraging investments in renewable energy. As global activities resumed, the market experienced recovery, supported by growing emphasis on environmental goals, efficient waste utilization, and long-term energy transition strategies.

The landfill gas segment is expected to be the largest during the forecast period

The landfill gas segment is expected to account for the largest market share during the forecast period because of its steady generation and well-established recovery systems. As organic waste decomposes in landfills, it produces methane that can be efficiently captured and upgraded into RNG. The presence of existing infrastructure and regulatory requirements for emission control strengthens its position. Compared to other feedstocks, landfill gas projects are often more cost-effective and easier to manage. Its

+357 96 030922
info@marketpublishers.com

reliable output and operational advantages make it a primary source for RNG production, supporting widespread adoption and maintaining its leading role in the global market landscape.

The liquefied RNG (L-RNG) segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the liquefied RNG (L-RNG) segment is predicted to witness the highest growth rate, driven by its suitability for high-energy-demand applications. Its superior energy density compared to compressed RNG makes it ideal for heavy-duty transportation such as trucks, ships, and trains. Expanding LNG infrastructure and fueling networks are supporting its wider adoption. Growing emphasis on reducing emissions in freight and logistics sectors is also boosting demand. Furthermore, its ease of storage and long-distance transportation increases its practicality. These advantages are contributing to the rapid growth of the L-RNG segment across global markets.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, supported by favorable regulations, developed infrastructure, and abundant organic waste resources. Government initiatives such as incentives and renewable energy mandates encourage the production and use of RNG across industries. The region has a strong base of landfill and agricultural projects, along with advanced technologies for gas upgrading. Rising demand for cleaner fuels in transport and energy applications further accelerates growth. Continuous investments and the presence of major industry participants enhance market expansion. These factors collectively position North America as the leading region in the global RNG market.

Region with highest CAGR:

Over the forecast period, the Asia-Pacific region is anticipated to exhibit the highest CAGR, driven by increasing population, industrial expansion, and rising energy needs. Governments are actively promoting waste-to-energy solutions to manage growing waste volumes and lower emissions. Investments in biogas infrastructure and supportive policies are encouraging market development. Technological improvements and international partnerships are also aiding expansion. The region’s focus on reducing reliance on traditional fuels and enhancing sustainability is boosting RNG demand. These combined factors make Asia-Pacific the most rapidly growing region in the global RNG market.

+357 96 030922
info@marketpublishers.com

Key players in the market

Some of the key players in Renewable Natural Gas (RNG) Market include Clean Energy Fuels, Archaea Energy, Montauk Renewables, VERBIO, Vanguard Renewables, Dominion Energy, Ameresco, Waga Energy, California Bioenergy, Future Biogas, Gasrec, J V Energen, Asia Biogas, Deqingyuan, Kinder Morgan, Shell plc, Aemetis and OPAL Fuels.

Key Developments:

In March 2026, Clean Energy Fuels Corp has announced a series of renewable natural gas (RNG) deals with trucking, refuse and transit fleets nationwide. The company has extended its partnership with Cerritos, California-based Ecology Transportation Services, which Clean Energy says serves as one of southern California's largest adopters of RNG for trucking.

In August 2024, Archaea Energy and Waste Connections, Inc. celebrate the opening of their first renewable natural gas (RNG) plant in Pennsylvania. The plant is adjacent to the Bethlehem Landfill in Lower Saucon Township owned by a Waste Connections subsidiary and came online in July. The partnership with Archaea and Waste Connections spans several years. In addition to the new RNG plant in Pennsylvania, Archaea owns and operates RNG plants adjacent to landfills owned by Waste Connections in Nebraska, New York and Oklahoma.

Feedstock Sources Covered:

- Agricultural Waste
- Food Waste
- Municipal Solid Waste (MSW)
- Wastewater Sludge
- Forestry Residues
- Landfill Gas

+357 96 030922
info@marketpublishers.com

Production Processes Covered:

- Anaerobic Digestion
- Gasification
- Pyrolysis
- Power-to-Gas

Distribution Modes Covered:

- Pipeline Injection
- Compressed RNG (C-RNG)
- Liquefied RNG (L-RNG)

Applications Covered:

- Power Generation
- Transportation Fuel
- Industrial Heating

End Users Covered:

- Utilities & Power Producers
- Transportation Sector
- Industrial Sector
- Residential & Commercial Consumers

+357 96 030922
info@marketpublishers.com

Regions Covered:

- North America
  - United States
  - Canada
  - Mexico
- Europe
  - United Kingdom
  - Germany
  - France
  - Italy
  - Spain
  - Netherlands
  - Belgium
  - Sweden
  - Switzerland
  - Poland
  - Rest of Europe
- Asia Pacific
  - China
  - Japan

+357 96 030922
info@marketpublishers.com

- India
- South Korea
- Australia
- Indonesia
- Thailand
- Malaysia
- Singapore
- Vietnam
- Rest of Asia Pacific

South America

- Brazil
- Argentina
- Colombia
- Chile
- Peru
- Rest of South America

Rest of the World (RoW)

- Middle East
  - Saudi Arabia

+357 96 030922
info@marketpublishers.com

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:
- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

+357 96 030922
info@marketpublishers.com

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

10 GLOBAL RENEWABLE NATURAL GAS (RNG) MARKET, BY GEOGRAPHY

+357 96 030922
info@marketpublishers.com

11 STRATEGIC MARKET INTELLIGENCE

12 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES

13 COMPANY PROFILES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) Regions are also represented in the same manner as above.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Renewable Natural Gas (RNG) Market Forecasts to 2034 – Global Analysis By Feedstock Source (Agricultural Waste, Food Waste, Municipal Solid Waste (MSW), Wastewater Sludge, Forestry Residues and Landfill Gas), Production Process, Distribution Mode, Application, End User and By Geography

Product link: https://marketpublishers.com/r/R12D23EE8DBCEN.html

Price: US$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/R12D23EE8DBCEN.html