

# Waste To Energy Market Projected to Achieve a 6.5% CAGR on Growing Circular Economy Initiatives

*Anaerobic digestion accounts for around USD 10.1 billion in 2025 value, favored in agricultural economies for dual biogas-and-digestate revenue streams.*

NEW YORK, NY, UNITED STATES, July 29, 2026 /EINPresswire.com/ -- The Waste To Energy Market

“

Industrial waste streams are projected to grow at a CAGR near 7.3%, fueled by extended producer responsibility legislation in the EU and Japan.”

*Prashant Hake*

reached an estimated USD 40.5 billion in 2025 and is projected to grow from USD 43.1 billion in 2026 to USD 76.0 billion by 2035, registering a CAGR of 6.5% during the 2026–2035 forecast period.

## Market Overview

[Waste-to-energy \(WTE\)](#) refers to the process of generating energy in the form of electricity, heat, or fuel from the treatment of waste materials. This energy recovery technology converts non-recyclable waste into usable

energy through various processes including incineration with energy recovery, gasification, pyrolysis, anaerobic digestion, and landfill gas capture. WTE facilities provide a dual benefit of reducing waste volumes requiring landfill disposal while simultaneously generating valuable energy resources. The technology addresses two critical global challenges: escalating waste generation due to urbanization and population growth, and the increasing demand for sustainable energy sources. WTE facilities range from large-scale thermal treatment plants processing thousands of tons of municipal solid waste daily to smaller anaerobic digestion facilities treating organic waste from agricultural and food processing operations.

The waste-to-energy market is experiencing significant growth driven by several key factors. The escalating global waste generation, particularly in urban areas, is creating urgent waste management challenges that WTE technologies can address. Landfill space limitations, rising landfill costs, and growing environmental concerns about methane emissions from landfills are driving adoption of WTE as an alternative waste treatment method. The increasing demand for renewable and alternative energy sources, coupled with favorable government policies promoting waste-to-energy as a renewable energy technology, is supporting market expansion. The potential for energy recovery from waste, combined with advancements in emission control technologies, is making WTE increasingly attractive.

Key industry trends shaping the waste-to-energy market include the growing focus on circular economy principles and sustainable waste management. The development of advanced thermal treatment technologies with higher energy recovery efficiency and lower emissions is gaining momentum. The integration of WTE facilities with other waste treatment processes, including material recovery facilities and composting, is creating integrated waste management solutions. The increasing adoption of anaerobic digestion technology for organic waste treatment is growing, driven by its benefits for biogas production and digestate as a soil amendment.

The market is also benefiting from technological advancements in waste processing and energy recovery. Innovations such as advanced thermal conversion technologies, including plasma gasification and hydrothermal processing, are expanding the application capabilities of WTE. The development of advanced flue gas treatment systems and emission control technologies is addressing environmental concerns and enabling compliance with increasingly stringent regulations. The integration of digital monitoring and control systems with real-time optimization capabilities is improving operational efficiency and reducing environmental impact.

Policy and regulatory frameworks significantly influence the waste-to-energy market landscape. Government policies promoting waste diversion from landfills, renewable energy targets, and emissions regulations are shaping the market. The European Union's Circular Economy Action Plan and the Landfill Directive are driving investments in WTE infrastructure. Many countries have implemented landfill taxes and bans on landfilling of biodegradable waste, creating favorable conditions for WTE development. Renewable energy incentives, feed-in tariffs, and renewable energy certificates are supporting the economic viability of WTE projects.

The demand outlook for waste-to-energy remains positive, supported by the continued growth in global waste generation, the need for sustainable waste management solutions, and the increasing focus on renewable energy generation. The expansion of waste-to-energy capacity in developing countries, particularly in Asia-Pacific and Latin America, will drive market growth. The modernization of existing WTE facilities with advanced technologies to improve efficiency and reduce emissions will further contribute to market expansion.

Get Free Sample Report for Detailed Market Insights:

[https://www.marketresearchfuture.com/sample\\_request/1369](https://www.marketresearchfuture.com/sample_request/1369)

## Market Segmentation

**By Technology:** The waste-to-energy market is segmented into thermal treatment technologies, biological treatment technologies, and other emerging technologies. Thermal treatment holds the largest market share and includes incineration, gasification, and pyrolysis technologies.

Incineration with energy recovery is the most widely adopted technology, providing proven and reliable waste treatment with significant energy recovery. Gasification and pyrolysis are gaining momentum as advanced thermal conversion technologies offering higher efficiency and lower emissions for certain waste types. Biological treatment technologies, dominated by anaerobic

digestion, are growing rapidly due to their suitability for organic waste treatment and biogas production. Landfill gas capture and utilization, while well-established, represent a mature market segment.

**By Waste Type:** The market is categorized into municipal solid waste (MSW), agricultural waste, industrial waste, and other waste types. Municipal solid waste is the largest segment, driven by the high volumes of MSW generated in urban areas worldwide. Agricultural waste is an emerging segment, with anaerobic digestion facilities processing crop residues and animal manure. Industrial waste includes process residues and byproducts from manufacturing operations, with cement kilns and dedicated WTE facilities processing industrial waste. Other waste types include sewage sludge, medical waste, and construction and demolition waste.

**By Application:** The market is segmented into power generation, heat generation, combined heat and power (CHP), and fuel production. Power generation is the dominant application, with WTE facilities generating electricity for grid supply. Combined heat and power applications are gaining importance, offering high overall efficiency through the utilization of both electricity and thermal energy for district heating or industrial processes. Heat generation serves industrial process heating applications, while fuel production includes the production of solid recovered fuel (SRF), refuse-derived fuel (RDF), and biofuels.

**By End-User Industry:** The market serves various end-user industries including utilities, municipal corporations, industrial facilities, and agricultural operations. Municipal corporations represent the largest end-user segment, responsible for MSW management in many jurisdictions. Utilities operate WTE facilities for power generation and renewable energy production. Industrial facilities utilize WTE technologies for waste treatment and energy recovery in manufacturing operations. Agricultural operations are adopting anaerobic digestion for manure and crop residue treatment.

**By Region:** The market is analyzed across North America, Europe, Asia-Pacific, Latin America, and the Middle East and Africa. Europe is the largest regional market, driven by supportive policies, landfill diversion targets, and established WTE infrastructure. Asia-Pacific is the fastest-growing region, driven by rapid urbanization and escalating waste generation in China, India, and Southeast Asian nations.

You can buy this market report at:

[https://www.marketresearchfuture.com/checkout?currency=one\\_user-USD&report\\_id=1369](https://www.marketresearchfuture.com/checkout?currency=one_user-USD&report_id=1369)

## Regional Analysis

**North America:** The North American waste-to-energy market is characterized by mature infrastructure in the United States and growing development in Canada. The United States operates a significant number of WTE facilities, primarily in states with limited landfill capacity and supportive renewable energy policies. The market is experiencing moderate growth, driven by the need to address waste management challenges and the increasing focus on renewable

energy generation. Landfill gas capture and utilization is well-established in the United States, representing a significant segment of the WTE market. Canada is developing its WTE capacity, driven by provincial waste diversion targets and renewable energy policies.

Europe: Europe is the largest regional market for waste-to-energy, driven by ambitious waste management policies, landfill diversion targets, and strong regulatory support. The European Union's Circular Economy Action Plan and the Landfill Directive have been instrumental in driving WTE development across member states. Germany, France, Italy, the Netherlands, and Sweden are leading countries, with extensive WTE infrastructure and high rates of waste-to-energy utilization. The region's established district heating networks support CHP applications, enhancing WTE efficiency and economic viability. Advanced emission control technologies and high environmental standards characterize the European market.

Asia-Pacific: The Asia-Pacific region is the fastest-growing waste-to-energy market, driven by rapid urbanization, increasing waste generation, and supportive government policies. China leads the market, with massive investments in WTE infrastructure to address escalating MSW generation and landfill capacity constraints. The Chinese government has implemented aggressive targets for WTE capacity expansion, driving significant market growth. Japan and South Korea have mature WTE markets, with advanced technologies and high waste-to-energy utilization rates. India is an emerging market, with growing investments in WTE facilities to address urban waste management challenges and generate renewable energy. Southeast Asian countries including Indonesia, Thailand, Vietnam, and the Philippines are developing WTE infrastructure to address waste management needs.

Latin America: The Latin American waste-to-energy market is in the early stages of development, presenting emerging opportunities. Brazil, Mexico, and Argentina are key markets with developing WTE infrastructure. The region's growing waste generation, coupled with increasing energy demand and renewable energy policies, is driving market development. Landfill gas capture projects are well-established in several countries, while thermal treatment projects are being developed in major urban centers. Challenges including regulatory frameworks, financing availability, and technology suitability affect market growth.

Middle East and Africa: The Middle East and Africa region presents a small but growing waste-to-energy market. The Middle East, particularly the UAE and Saudi Arabia, is developing WTE infrastructure to address waste management challenges and support renewable energy goals. The region's high waste generation rates and limited landfill capacity are driving investments in WTE facilities. Africa presents emerging opportunities, particularly in major urban centers facing significant waste management challenges. South Africa and Morocco are developing WTE projects, while other countries are assessing potential for WTE deployment.

#### Competitive Landscape / Key Players

The global waste-to-energy market is characterized by a mix of established engineering and construction companies, technology providers, facility operators, and utilities. Key companies

operating in the market include:

**Covanta Holding Corporation:** A leading global provider of waste-to-energy services, operating a large portfolio of WTE facilities primarily in North America and Europe. Covanta's expertise in facility operations, environmental management, and project development supports its market leadership.

**Veolia Environnement S.A.:** A global leader in environmental services, providing comprehensive waste management and WTE solutions. Veolia operates WTE facilities worldwide, integrating waste treatment with energy recovery and material recovery.

**Suez S.A.:** A major environmental services company offering integrated waste management and WTE solutions. Suez's technological capabilities and project development expertise support its strong market presence.

**Wheelabrator Technologies Inc.:** A leading WTE company, operating facilities in the United States and Europe. Wheelabrator's focus on efficient, environmentally responsible operations contributes to its market position.

**Fortum Oyj:** A Finnish energy company with significant WTE operations in Europe, integrating waste treatment with district heating and power generation. Fortum's expertise in CHP applications supports its market position.

Other notable players include Hitachi Zosen Corporation, Babcock & Wilcox Enterprises, Inc., Mitsubishi Heavy Industries Ltd., Andritz AG, and numerous regional companies providing engineering, construction, and operational services. Strategic developments include facility expansions, technology upgrades, mergers and acquisitions, and expansion into emerging markets.

#### Latest Industry News & Developments

**December 2025:** Covanta announced the successful completion of a major upgrade to its WTE facility in Virginia, United States, incorporating advanced emission control technology and improved energy recovery systems. The upgrade is expected to increase energy production by 15% while reducing emissions beyond regulatory requirements.

**November 2025:** Veolia secured a 25-year contract for the development and operation of a new WTE facility in the United Kingdom, processing 400,000 tons of municipal waste annually. The facility will incorporate advanced thermal treatment technology and include CHP capability to supply district heating to surrounding communities.

**October 2025:** The Chinese government announced an additional \$30 billion investment program for WTE infrastructure development over the next five years, focusing on expanding capacity and modernizing existing facilities with advanced emission control technologies. The

initiative supports China's waste management and renewable energy goals.

### Market Challenges & Opportunities

**Key Restraints:** The waste-to-energy market faces several challenges that could impact its growth trajectory. The high capital costs of WTE facilities, particularly thermal treatment plants, create significant investment barriers and long payback periods. Public opposition and community concerns about emissions and local impacts often cause project delays and increased costs. The availability of consistent waste feedstock with appropriate composition and energy content affects operational viability. Environmental regulations governing emissions and waste handling create compliance costs and operational complexity. Competition from low-cost landfill disposal in some regions and the increasing focus on waste reduction and recycling present market risks. Additionally, challenges related to energy efficiency improvements and optimizing plant performance affect financial returns.

**Emerging Opportunities:** The waste-to-energy market presents substantial opportunities in addressing global waste management and energy challenges. The growing focus on circular economy and sustainable waste management creates demand for integrated WTE facilities that complement recycling and reduction efforts. The development of advanced conversion technologies offering higher efficiency and lower emissions opens new opportunities for WTE deployment. The increasing interest in hydrogen production from waste and the development of waste-to-hydrogen projects represent emerging opportunities. The modernization of aging WTE infrastructure in developed markets creates significant retrofit and technology upgrade opportunities. The expansion of WTE capacity in developing regions with growing waste generation presents substantial market growth potential.

**Future Potential:** The long-term potential of the waste-to-energy market is supported by the continued growth in global waste generation, increasing landfill constraints, and the need for sustainable waste management solutions. The advancement of gasification and pyrolysis technologies, with potential for improved efficiency and lower emissions, will expand WTE application capabilities. The integration of WTE with carbon capture and storage offers a pathway to carbon-negative waste treatment. The development of decentralized and modular WTE solutions will enable applications in smaller communities and industrial facilities. The essential role of WTE in integrated waste management systems, combined with its contribution to renewable energy generation and GHG emission reduction, ensures sustained market demand and long-term growth potential throughout the forecast period.

To explore more market insights, visit us at:

<https://www.marketresearchfuture.com/reports/waste-to-energy-market-1369>

### Final Market Summary

The global waste-to-energy market is poised for significant growth, with projections indicating an expansion from USD 43.1 billion in 2026 to USD 76.0 billion by 2035, at a compound annual growth rate of 6.5%. This growth trajectory is driven by escalating global waste generation, the

need for sustainable waste management solutions, and increasing demand for renewable energy generation. Europe emerges as the largest regional market, supported by ambitious waste management policies and established WTE infrastructure, while Asia-Pacific represents the fastest-growing region, driven by rapid urbanization and significant investments in WTE capacity. Technological advancements in thermal and biological treatment technologies, combined with improvements in emission control and energy recovery, are enhancing market viability. Despite challenges including high capital costs, public opposition, and regulatory compliance requirements, the market offers substantial opportunities in integrated waste management, technology innovation, and emerging market expansion. The essential role of WTE in addressing waste management challenges while contributing to renewable energy generation and climate change mitigation ensures sustained market growth and long-term industry potential throughout the forecast period.

More Related Reports from MRFR Library:

Motor Control Centers Market: <https://www.marketresearchfuture.com/reports/motor-control-centers-market-4105>

Water Electrolysis Market: <https://www.marketresearchfuture.com/reports/water-electrolysis-market-4133>

Solar Rooftop Market: <https://www.marketresearchfuture.com/reports/solar-rooftop-sales-market-4174>

Laser welding machine Market: <https://www.marketresearchfuture.com/reports/laser-welding-machine-market-4240>

Solar Charge Controllers Market: <https://www.marketresearchfuture.com/reports/solar-charge-controllers-market-4280>

Food Waste Management Market: <https://www.marketresearchfuture.com/reports/food-waste-management-market-4343>

Subsea System Market: <https://www.marketresearchfuture.com/reports/subsea-system-market-4448>

Energy Storage Market: <https://www.marketresearchfuture.com/reports/energy-storage-market-4476>

Smart Meters Market: <https://www.marketresearchfuture.com/reports/smart-meters-market-4569>

Solar PV Mounting Systems Market: <https://www.marketresearchfuture.com/reports/solar-pv-mounting-systems-market-4619>

Larry Wilson

WantStats Research And Media Pvt. Ltd.

+1 855-661-4441

[email us here](#)

Visit us on social media:

[LinkedIn](#)

[Facebook](#)

[YouTube](#)

[X](#)

---

This press release can be viewed online at: <https://www.einpresswire.com/article/930192039>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2026 Newsmatics Inc. All Right Reserved.