North America Biomass Power Market Forecast 2024-2032

Market Report | 2024-12-23 | 151 pages | Inkwood Research

AVAILABLE LICENSES:

- Single User Price $1600.00
- Global Site License $2200.00

Report description:

KEY FINDINGS
The North America biomass power market is anticipated to rise with a CAGR of 5.87% over the forecasting years of 2024 to 2032, reaching a revenue of $26093.91 million by 2032. In terms of volume, the market was valued at 185.56 million MWh in 2023 and is projected to reach 339.69 million MWh by 2032, growing with a CAGR of 7.04% during the forecasted period.
MARKET INSIGHTS
The regional market's growth is attributed to the increasing demand for renewable energy sources, supportive government policies, advancements in biomass conversion technologies, and growing environmental awareness. Improved energy infrastructure and the availability of abundant biomass feedstocks, such as agricultural residues and forestry by-products, also contribute to the market expansion. However, the North American biomass power market is likely to be hindered by competition from other renewable energy sources, fluctuating biomass feedstock prices, and stringent environmental regulations.
REGIONAL INSIGHTS
The North America biomass power market growth assessment comprises the evaluation of the United States and Canada.
The United States holds the largest market share in North America, propelled by federal and state policies that encourage renewable energy adoption, such as tax incentives, renewable portfolio standards, and grants for biomass projects. According to the US Energy Information Administration's (EIA) latest Short-Term Energy Outlook, renewable energy is projected to supply 25% of US electricity generation in 2025, up from 22% in 2023. In 2022, renewables also contributed 22% to the nation's electricity production, with a significant portion derived from biomass power.
On the other hand, biomass electricity generation is projected to reach 23.5 billion kilowatt-hours (kWh), with an expected increase to 24.6 billion kWh in 2024. The EIA highlights that biomass is a critical renewable resource due to its ability to provide continuous, reliable baseload power, unlike intermittent renewables such as solar or wind. This reliability makes biomass a valuable asset in maintaining grid stability, subsequently playing a critical role in boosting the biomass power market growth in North America during the forecast period.
SEGMENTATION ANALYSIS
The North America biomass power market is segmented into feedstock, technology, and application. The technology segment is further classified into combustion, anaerobic digestion, gasification, co-firing and CHP, and landfill gas (LFG).
Anaerobic digestion is a vital technology segment in the North America biomass power market. This process breaks down organic materials-such as agricultural waste, manure, municipal solid waste, and wastewater sludge-in the absence of oxygen to produce

biogas, mainly composed of methane and carbon dioxide. The biogas is used to generate electricity and heat, while the remaining digestate serves as a nutrient-rich fertilizer. This method not only produces renewable energy but also offers effective waste management by reducing landfill use and capturing methane emissions.

The growth of the anaerobic digestion segment is driven by supportive government policies, technological advancements, and increased environmental awareness. Federal and state incentives encourage its adoption in agricultural and municipal sectors for efficient waste management and energy production. The rising demand for renewable natural gas and its integration into existing energy systems further boost this segment. As efforts to reduce carbon footprints intensify, anaerobic digestion plays a crucial role in advancing sustainable energy solutions in North America.

COMPETITIVE INSIGHTS

Some of the top players operating in the North America biomass power market include Acciona SA, Drax Group PLC, etc.

Drax Group PLC, headquartered in the United Kingdom, is a leading renewable energy company specializing in biomass power generation. The company operates the Drax Power Station in North Yorkshire, which is one of the largest biomass-fueled power plants in the world. Drax is actively involved in producing sustainable electricity by converting biomass materials, such as compressed wood pellets, into renewable power, significantly contributing to the UK's energy supply and reducing reliance on fossil fuels.

One of Drax's notable projects is the implementation of Bioenergy with Carbon Capture and Storage (BECCS) technology at its North Yorkshire power station. This pioneering initiative aims to remove carbon dioxide from the atmosphere while generating renewable electricity, effectively delivering negative emissions.

Table of Contents:

SCOTTS INTERNATIONAL

North America Biomass Power Market Forecast 2024-2032

Market Report | 2024-12-23 | 151 pages | Inkwood Research

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User Price	$1600.00
	Global Site License	$2200.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2025-06-26
		Signature	