

# **Biomass Power Generation Market By Feedstock (Forest Waste, Agriculture Waste, Animal Waste, Municipal Waste) , By Fuel (Solid, Liquid, Gaseous) By Technonolgy (Gasification, Combustion, Anaerobic Digestion, Pyrolysis) : Global Opportunity Analysis and Industry Forecast, 2024-2033**

<https://marketpublishers.com/r/B9492CA0F87CEN.html>

Date: August 2024

Pages: 300

Price: US\$ 2,601.00 (Single User License)

ID: B9492CA0F87CEN

## **Abstracts**

### **Biomass Power Generation Market**

The biomass power generation market was valued at \$91.3 billion in 2023 and is projected to reach \$124.5 billion by 2033, growing at a CAGR of 3.2% from 2024 to 2033.

Biomass power generation is the process in which organic materials are used for the generation of electricity and heat. The materials utilized in this process include renewable materials such as agricultural residues, plant matter, and animal waste. Various technologies are used for the conversion of waste into energy, including gasification, direct combustion, pyrolysis, and anaerobic digestion. Power generation from biomass offers diverse benefits such as waste reduction, availability of carbon neutral energy, and development of local economies.

Increase in global awareness regarding the negative impact of fossil fuels and rise in demand for renewable energy resources to mitigate the effects of climate change are the key drivers of the biomass power generation market. Moreover, government support in the form of incentives and subsidies to fuel the adoption of biomass energy propels the market development. To enhance the carbon emission reduction capabilities of the biomass power generation process, the assimilation of carbon capture techniques is

trending in recent times. This assimilation captures the carbon produced during the conversion process and stores it underground, effectively making the entire process carbon negative.

However, maintaining a constant supply chain of biomass for the power generation process is a challenging task that hampers the growth of the market. In addition, the installation of infrastructure for biomass power generation requires a significant portion of land, which limits the expansion of the market in areas with limited land availability. On the contrary, as governments of various countries incline toward decentralization of energy to achieve net zero emissions, the biomass power generation market is anticipated to witness several remunerative opportunities across the globe. According to an article by New Statesman—a British political magazine—the U.S. government targets to generate electricity completely through clean resources by 2035. Furthermore, the proportion of electricity generation through renewables in the first quarter of 2023 was approximately 47.8% in the country. Such net zero emission targets have been implemented in various nations across the globe, indicating a promising future for the biomass power generation market.

## Segment Review

The biomass power generation market is segmented into feedstock, fuel, technology, and region. On the basis of feedstock, the market is divided into forest waste, agriculture waste, animal waste, and municipal waste. As per fuel, it is classified into solid, liquid, and gaseous. By technology, it is categorized into gasification, combustion, anaerobic digestion, and pyrolysis. Region wise, it is analyzed across North America, Europe, Asia-Pacific, and LAMEA.

## Key Findings

On the basis of feedstock, the agriculture waste segment is expected to dominate the market throughout the forecast period.

As per fuel, the solid segment is projected to acquire a high stake in the market by 2033.

By technology, the combustion segment is expected to garner a high market share during the forecast period.

Region wise, Asia-Pacific is predicted to be the highest revenue generator by 2033.

## Competition Analysis

The major players of the global biomass power generation market include Drax Global, ENGIE, Babcock & Wilcox Enterprises, Inc, Xcel Energy Inc., Ørsted A/S, Ameresco, Vattenfall AB, MITSUBISHI HEAVY INDUSTRIES, LTD., Sumitomo Corporation, and Hurst Boiler & Welding Co, Inc. These major players have adopted various key development strategies such as business expansion, new product launches, and partnerships, to strengthen their foothold in the competitive market.

Additional benefits you will get with this purchase are:

Quarterly Update and\* (only available with a corporate license, on listed price)

5 additional Company Profile of client Choice pre- or Post-purchase, as a free update.

Free Upcoming Version on the Purchase of Five and Enterprise User License.

16 analyst hours of support\* (post-purchase, if you find additional data requirements upon review of the report, you may receive support amounting to 16 analyst hours to solve questions, and post-sale queries)

15% Free Customization\* (in case the scope or segment of the report does not match your requirements, 15% is equivalent to 3 working days of free work, applicable once)

Free data Pack on the Five and Enterprise User License. (Excel version of the report)

Free Updated report if the report is 6-12 months old or older.

24-hour priority response\*

Free Industry updates and white papers.

Possible Customization with this report (with additional cost and timeline, please talk to the sales executive to know more)

Consumer Buying Behavior Analysis

End user preferences and pain points

Installed Base analysis

Product Benchmarking / Product specification and applications

Scenario Analysis & Growth Trend Comparison

Upcoming/New Entrant by Regions

Technology Trend Analysis

Go To Market Strategy

Market share analysis of players by products/segments

New Product Development/ Product Matrix of Key Players

Pain Point Analysis

Regulatory Guidelines

Surgical procedures data- specific or multiple surgery types

Additional company profiles with specific to client's interest

Additional country or region analysis- market size and forecast

Average Selling Price Analysis / Price Point Analysis

Expanded list for Company Profiles

Historic market data

Key player details (including location, contact details, supplier/vendor network etc. in excel format)

List of customers/consumers/raw material suppliers- value chain analysis

Product Consumption Analysis

Reimbursement Scenario

## Key Market Segments

### By Feedstock

Forest Waste

Agriculture Waste

Animal Waste

Municipal Waste

### By Fuel

Solid

Liquid

Gaseous

### By Technonolgy

Gasification

Combustion

Anaerobic Digestion

Pyrolysis

## By Region

North America

U.S.

Canada

Mexico

Europe

France

Germany

Italy

Spain

UK

Rest of Europe

Asia-Pacific

China

Japan

India

South Korea

Australia

Rest of Asia-Pacific

LAMEA

Brazil

South Africa

Saudi Arabia

Rest of LAMEA

Key Market Players

Drax Global

ENGIE

Babcock & Wilcox Enterprises, Inc

Xcel Energy Inc.

Ørsted A/S

Ameresco

Vattenfall AB

MITSUBISHI HEAVY INDUSTRIES, LTD.

Sumitomo Corporation

Hurst Boiler & Welding Co, Inc

## Contents

### CHAPTER 1: INTRODUCTION

- 1.1. Report Description
- 1.2. Key Market Segments
- 1.3. Key Benefits
- 1.4. Research Methodology
  - 1.4.1. Primary Research
  - 1.4.2. Secondary Research
  - 1.4.3. Analyst Tools and Models

### CHAPTER 2: EXECUTIVE SUMMARY

- 2.1. CXO Perspective

### CHAPTER 3: MARKET LANDSCAPE

- 3.1. Market Definition and Scope
- 3.2. Key Findings
  - 3.2.1. Top Investment Pockets
  - 3.2.2. Top Winning Strategies
- 3.3. Porter's Five Forces Analysis
  - 3.3.1. Bargaining Power of Suppliers
  - 3.3.2. Threat of New Entrants
  - 3.3.3. Threat of Substitutes
  - 3.3.4. Competitive Rivalry
  - 3.3.5. Bargaining Power among Buyers
- 3.4. Market Dynamics
  - 3.4.1. Drivers
  - 3.4.2. Restraints
  - 3.4.3. Opportunities

### CHAPTER 4: BIOMASS POWER GENERATION MARKET, BY FEEDSTOCK

- 4.1. Market Overview
  - 4.1.1 Market Size and Forecast, By Feedstock
- 4.2. Forest Waste
  - 4.2.1. Key Market Trends, Growth Factors and Opportunities



- 4.2.2. Market Size and Forecast, By Region
- 4.2.3. Market Share Analysis, By Country
- 4.3. Agriculture Waste
  - 4.3.1. Key Market Trends, Growth Factors and Opportunities
  - 4.3.2. Market Size and Forecast, By Region
  - 4.3.3. Market Share Analysis, By Country
- 4.4. Animal Waste
  - 4.4.1. Key Market Trends, Growth Factors and Opportunities
  - 4.4.2. Market Size and Forecast, By Region
  - 4.4.3. Market Share Analysis, By Country
- 4.5. Municipal Waste
  - 4.5.1. Key Market Trends, Growth Factors and Opportunities
  - 4.5.2. Market Size and Forecast, By Region
  - 4.5.3. Market Share Analysis, By Country

## **CHAPTER 5: BIOMASS POWER GENERATION MARKET, BY FUEL**

- 5.1. Market Overview
  - 5.1.1 Market Size and Forecast, By Fuel
- 5.2. Solid
  - 5.2.1. Key Market Trends, Growth Factors and Opportunities
  - 5.2.2. Market Size and Forecast, By Region
  - 5.2.3. Market Share Analysis, By Country
- 5.3. Liquid
  - 5.3.1. Key Market Trends, Growth Factors and Opportunities
  - 5.3.2. Market Size and Forecast, By Region
  - 5.3.3. Market Share Analysis, By Country
- 5.4. Gaseous
  - 5.4.1. Key Market Trends, Growth Factors and Opportunities
  - 5.4.2. Market Size and Forecast, By Region
  - 5.4.3. Market Share Analysis, By Country

## **CHAPTER 6: BIOMASS POWER GENERATION MARKET, BY TECHNOLOGY**

- 6.1. Market Overview
  - 6.1.1 Market Size and Forecast, By Technology
- 6.2. Gasification
  - 6.2.1. Key Market Trends, Growth Factors and Opportunities
  - 6.2.2. Market Size and Forecast, By Region

- 6.2.3. Market Share Analysis, By Country
- 6.3. Combustion
  - 6.3.1. Key Market Trends, Growth Factors and Opportunities
  - 6.3.2. Market Size and Forecast, By Region
  - 6.3.3. Market Share Analysis, By Country
- 6.4. Anaerobic Digestion
  - 6.4.1. Key Market Trends, Growth Factors and Opportunities
  - 6.4.2. Market Size and Forecast, By Region
  - 6.4.3. Market Share Analysis, By Country
- 6.5. Pyrolysis
  - 6.5.1. Key Market Trends, Growth Factors and Opportunities
  - 6.5.2. Market Size and Forecast, By Region
  - 6.5.3. Market Share Analysis, By Country

## **CHAPTER 7: BIOMASS POWER GENERATION MARKET, BY REGION**

- 7.1. Market Overview
  - 7.1.1 Market Size and Forecast, By Region
- 7.2. North America
  - 7.2.1. Key Market Trends and Opportunities
  - 7.2.2. Market Size and Forecast, By Feedstock
  - 7.2.3. Market Size and Forecast, By Fuel
  - 7.2.4. Market Size and Forecast, By Technology
  - 7.2.5. Market Size and Forecast, By Country
  - 7.2.6. U.S. Biomass Power Generation Market
    - 7.2.6.1. Market Size and Forecast, By Feedstock
    - 7.2.6.2. Market Size and Forecast, By Fuel
    - 7.2.6.3. Market Size and Forecast, By Technology
  - 7.2.7. Canada Biomass Power Generation Market
    - 7.2.7.1. Market Size and Forecast, By Feedstock
    - 7.2.7.2. Market Size and Forecast, By Fuel
    - 7.2.7.3. Market Size and Forecast, By Technology
  - 7.2.8. Mexico Biomass Power Generation Market
    - 7.2.8.1. Market Size and Forecast, By Feedstock
    - 7.2.8.2. Market Size and Forecast, By Fuel
    - 7.2.8.3. Market Size and Forecast, By Technology
- 7.3. Europe
  - 7.3.1. Key Market Trends and Opportunities
  - 7.3.2. Market Size and Forecast, By Feedstock

- 7.3.3. Market Size and Forecast, By Fuel
- 7.3.4. Market Size and Forecast, By Technonolgy
- 7.3.5. Market Size and Forecast, By Country
- 7.3.6. France Biomass Power Generation Market
  - 7.3.6.1. Market Size and Forecast, By Feedstock
  - 7.3.6.2. Market Size and Forecast, By Fuel
  - 7.3.6.3. Market Size and Forecast, By Technonolgy
- 7.3.7. Germany Biomass Power Generation Market
  - 7.3.7.1. Market Size and Forecast, By Feedstock
  - 7.3.7.2. Market Size and Forecast, By Fuel
  - 7.3.7.3. Market Size and Forecast, By Technonolgy
- 7.3.8. Italy Biomass Power Generation Market
  - 7.3.8.1. Market Size and Forecast, By Feedstock
  - 7.3.8.2. Market Size and Forecast, By Fuel
  - 7.3.8.3. Market Size and Forecast, By Technonolgy
- 7.3.9. Spain Biomass Power Generation Market
  - 7.3.9.1. Market Size and Forecast, By Feedstock
  - 7.3.9.2. Market Size and Forecast, By Fuel
  - 7.3.9.3. Market Size and Forecast, By Technonolgy
- 7.3.10. UK Biomass Power Generation Market
  - 7.3.10.1. Market Size and Forecast, By Feedstock
  - 7.3.10.2. Market Size and Forecast, By Fuel
  - 7.3.10.3. Market Size and Forecast, By Technonolgy
- 7.3.11. Rest Of Europe Biomass Power Generation Market
  - 7.3.11.1. Market Size and Forecast, By Feedstock
  - 7.3.11.2. Market Size and Forecast, By Fuel
  - 7.3.11.3. Market Size and Forecast, By Technonolgy
- 7.4. Asia-Pacific
  - 7.4.1. Key Market Trends and Opportunities
  - 7.4.2. Market Size and Forecast, By Feedstock
  - 7.4.3. Market Size and Forecast, By Fuel
  - 7.4.4. Market Size and Forecast, By Technonolgy
  - 7.4.5. Market Size and Forecast, By Country
  - 7.4.6. China Biomass Power Generation Market
    - 7.4.6.1. Market Size and Forecast, By Feedstock
    - 7.4.6.2. Market Size and Forecast, By Fuel
    - 7.4.6.3. Market Size and Forecast, By Technonolgy
  - 7.4.7. Japan Biomass Power Generation Market
    - 7.4.7.1. Market Size and Forecast, By Feedstock

- 7.4.7.2. Market Size and Forecast, By Fuel
- 7.4.7.3. Market Size and Forecast, By Technonolgy
- 7.4.8. India Biomass Power Generation Market
  - 7.4.8.1. Market Size and Forecast, By Feedstock
  - 7.4.8.2. Market Size and Forecast, By Fuel
  - 7.4.8.3. Market Size and Forecast, By Technonolgy
- 7.4.9. South Korea Biomass Power Generation Market
  - 7.4.9.1. Market Size and Forecast, By Feedstock
  - 7.4.9.2. Market Size and Forecast, By Fuel
  - 7.4.9.3. Market Size and Forecast, By Technonolgy
- 7.4.10. Australia Biomass Power Generation Market
  - 7.4.10.1. Market Size and Forecast, By Feedstock
  - 7.4.10.2. Market Size and Forecast, By Fuel
  - 7.4.10.3. Market Size and Forecast, By Technonolgy
- 7.4.11. Rest of Asia-Pacific Biomass Power Generation Market
  - 7.4.11.1. Market Size and Forecast, By Feedstock
  - 7.4.11.2. Market Size and Forecast, By Fuel
  - 7.4.11.3. Market Size and Forecast, By Technonolgy
- 7.5. LAMEA
  - 7.5.1. Key Market Trends and Opportunities
  - 7.5.2. Market Size and Forecast, By Feedstock
  - 7.5.3. Market Size and Forecast, By Fuel
  - 7.5.4. Market Size and Forecast, By Technonolgy
  - 7.5.5. Market Size and Forecast, By Country
  - 7.5.6. Brazil Biomass Power Generation Market
    - 7.5.6.1. Market Size and Forecast, By Feedstock
    - 7.5.6.2. Market Size and Forecast, By Fuel
    - 7.5.6.3. Market Size and Forecast, By Technonolgy
  - 7.5.7. South Africa Biomass Power Generation Market
    - 7.5.7.1. Market Size and Forecast, By Feedstock
    - 7.5.7.2. Market Size and Forecast, By Fuel
    - 7.5.7.3. Market Size and Forecast, By Technonolgy
  - 7.5.8. Saudi Arabia Biomass Power Generation Market
    - 7.5.8.1. Market Size and Forecast, By Feedstock
    - 7.5.8.2. Market Size and Forecast, By Fuel
    - 7.5.8.3. Market Size and Forecast, By Technonolgy
  - 7.5.9. Rest of LAMEA Biomass Power Generation Market
    - 7.5.9.1. Market Size and Forecast, By Feedstock
    - 7.5.9.2. Market Size and Forecast, By Fuel

#### 7.5.9.3. Market Size and Forecast, By Technonolgy

## **CHAPTER 8: COMPETITIVE LANDSCAPE**

- 8.1. Introduction
- 8.2. Top Winning Strategies
- 8.3. Product Mapping Of Top 10 Player
- 8.4. Competitive Dashboard
- 8.5. Competitive Heatmap
- 8.6. Top Player Positioning, 2023

## **CHAPTER 9: COMPANY PROFILES**

- 9.1. Drax Global
  - 9.1.1. Company Overview
  - 9.1.2. Key Executives
  - 9.1.3. Company Snapshot
  - 9.1.4. Operating Business Segments
  - 9.1.5. Product Portfolio
  - 9.1.6. Business Performance
  - 9.1.7. Key Strategic Moves and Developments
- 9.2. ENGIE
  - 9.2.1. Company Overview
  - 9.2.2. Key Executives
  - 9.2.3. Company Snapshot
  - 9.2.4. Operating Business Segments
  - 9.2.5. Product Portfolio
  - 9.2.6. Business Performance
  - 9.2.7. Key Strategic Moves and Developments
- 9.3. Babcock And Wilcox Enterprises, Inc
  - 9.3.1. Company Overview
  - 9.3.2. Key Executives
  - 9.3.3. Company Snapshot
  - 9.3.4. Operating Business Segments
  - 9.3.5. Product Portfolio
  - 9.3.6. Business Performance
  - 9.3.7. Key Strategic Moves and Developments
- 9.4. Xcel Energy Inc.
  - 9.4.1. Company Overview

- 9.4.2. Key Executives
- 9.4.3. Company Snapshot
- 9.4.4. Operating Business Segments
- 9.4.5. Product Portfolio
- 9.4.6. Business Performance
- 9.4.7. Key Strategic Moves and Developments
- 9.5. Ørsted A/S
  - 9.5.1. Company Overview
  - 9.5.2. Key Executives
  - 9.5.3. Company Snapshot
  - 9.5.4. Operating Business Segments
  - 9.5.5. Product Portfolio
  - 9.5.6. Business Performance
  - 9.5.7. Key Strategic Moves and Developments
- 9.6. Ameresco
  - 9.6.1. Company Overview
  - 9.6.2. Key Executives
  - 9.6.3. Company Snapshot
  - 9.6.4. Operating Business Segments
  - 9.6.5. Product Portfolio
  - 9.6.6. Business Performance
  - 9.6.7. Key Strategic Moves and Developments
- 9.7. Vattenfall AB
  - 9.7.1. Company Overview
  - 9.7.2. Key Executives
  - 9.7.3. Company Snapshot
  - 9.7.4. Operating Business Segments
  - 9.7.5. Product Portfolio
  - 9.7.6. Business Performance
  - 9.7.7. Key Strategic Moves and Developments
- 9.8. MITSUBISHI HEAVY INDUSTRIES, LTD.
  - 9.8.1. Company Overview
  - 9.8.2. Key Executives
  - 9.8.3. Company Snapshot
  - 9.8.4. Operating Business Segments
  - 9.8.5. Product Portfolio
  - 9.8.6. Business Performance
  - 9.8.7. Key Strategic Moves and Developments
- 9.9. Sumitomo Corporation

- 9.9.1. Company Overview
- 9.9.2. Key Executives
- 9.9.3. Company Snapshot
- 9.9.4. Operating Business Segments
- 9.9.5. Product Portfolio
- 9.9.6. Business Performance
- 9.9.7. Key Strategic Moves and Developments
- 9.10. Hurst Boiler And Welding Co, Inc
  - 9.10.1. Company Overview
  - 9.10.2. Key Executives
  - 9.10.3. Company Snapshot
  - 9.10.4. Operating Business Segments
  - 9.10.5. Product Portfolio
  - 9.10.6. Business Performance
  - 9.10.7. Key Strategic Moves and Developments

## I would like to order

Product name: Biomass Power Generation Market By Feedstock (Forest Waste, Agriculture Waste, Animal Waste, Municipal Waste) , By Fuel (Solid, Liquid, Gaseous) By Technonolgy (Gasification, Combustion, Anaerobic Digestion, Pyrolysis) : Global Opportunity Analysis and Industry Forecast, 2024-2033

Product link: <https://marketpublishers.com/r/B9492CA0F87CEN.html>

Price: US\$ 2,601.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/B9492CA0F87CEN.html>