

US Second Generation Biofuels Market Size study, by Type (Cellulosic Ethanol, Biodiesel, Bio Butanol, Others), by Feedstock (Simple Lignocellulose, Complex Lignocellulose, Syngas, Algae, Others), by Process (Biochemical Process, Thermochemical Process), by Application (Transportation, Power Generation, Others) Forecasts 2022-2032

https://marketpublishers.com/r/U193A3D44738EN.html

Date: July 2024 Pages: 200 Price: US\$ 6,250.00 (Single User License) ID: U193A3D44738EN

# **Abstracts**

US Second Generation Biofuels Market is valued approximately USD 3.24 billion in 2023 and is anticipated to grow with a healthy growth rate of more than 26.82% over the forecast period 2024-2032. Second generation biofuels create liquid transportation fuels for ethanol, biodiesel, and renewable diesel, it employs feedstocks including agricultural leftovers (corn stover, wheat straw), forestry residues (wood chips, sawdust), energy crops (switchgrass, miscanthus), and organic waste (municipal solid waste, landfill gas). These biofuels emit fewer greenhouse gases than first-generation alternatives, and they are more sustainable. Advancements in biotechnology, enzymatic processes, and thermochemical conversion techniques are driving the development of more efficient and cost-effective second-generation biofuel production methods. These innovations are improving the conversion efficiency of non-food biomass sources such as agricultural residues, forest residues, and municipal solid waste into biofuels. Thus, this trend further help in growth of the .US Second Generation Biofuels Market during the forecast period 2024-2032.

Energy security and diversification are pivotal drivers bolstering demand for the US second-generation biofuels market. With a pressing need to reduce reliance on imported fossil fuels, biofuels offer a promising avenue for enhancing energy security. Second-generation biofuels, derived from abundant non-food biomass sources like



agricultural residues and waste materials, contribute to diversifying the nation's energy mix. This diversification mitigates risks associated with finite fossil fuel resources and volatile international markets. Moreover, biofuels align with strategic energy goals, fostering a more resilient energy infrastructure while reducing dependence on foreign oil. As a result, policies supporting renewable fuel standards and research initiatives are amplifying investments in advanced biofuel technologies, driving market growth. This momentum not only strengthens energy security but also catalyzes economic development, innovation, and environmental sustainability within the US energy sector. However, production processes for second-generation biofuels, such as enzymatic hydrolysis and gasification, are complex and expensive compared to first-generation biofuels and competition with first-generation biofuels, these factors can stifle market growth during the forecast period 2024-2032.

Major market player included in this report are: International Flavors & Fragrances Inc. ZeaChem POET, LLC. Algenol Biotech LLC Renewable Energy Group Company 5 Company 6 Company 7 Company 8 Company 9 Company 10

The detailed segments and sub-segment of the market are explained below:

By Type Cellulosic Ethanol Biodiesel Bio Butanol Others

By Feedstock Simple Lignocellulose Complex Lignocellulose



Syngas Algae Others

By Process Biochemical Process Thermochemical Process

By Application Transportation Power Generation Others

Years considered for the study are as follows: Historical year – 2022 Base year – 2023 Forecast period – 2024 to 2032

Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and Country level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach. Analysis of competitive structure of the market.

Demand side and supply side analysis of the market



## Contents

# CHAPTER 1. US SECOND GENERATION BIOFUELS MARKET DEFINITION AND RESEARCH ASSUMPTIONS

- 1.1. Research Objective
- 1.2. Market Definition
- 1.3. Research Assumptions
- 1.3.1. Inclusion & Exclusion
- 1.3.2. Limitations
- 1.3.3. Supply Side Analysis
- 1.3.3.1. Availability
- 1.3.3.2. Infrastructure
- 1.3.3.3. Regulatory Environment
- 1.3.3.4. Market Competition
- 1.3.3.5. Economic Viability (Consumer's Perspective)
- 1.3.4. Demand Side Analysis
  - 1.3.4.1. Regulatory frameworks
  - 1.3.4.2. Technological Advancements
  - 1.3.4.3. Environmental Considerations
  - 1.3.4.4. Consumer Awareness & Acceptance
- 1.4. Estimation Methodology
- 1.5. Years Considered for the Study
- 1.6. Currency Conversion Rates

#### **CHAPTER 2. EXECUTIVE SUMMARY**

- 2.1. US Second Generation Biofuels Market Size & Forecast (2022-2032)
- 2.2. Segmental Summary
  - 2.2.1. By Type
  - 2.2.2. By Feedstock
  - 2.2.3. By Process
  - 2.2.4. By Application
- 2.3. Key Trends
- 2.4. Recession Impact
- 2.5. Analyst Recommendation & Conclusion

#### CHAPTER 3. US SECOND GENERATION BIOFUELS MARKET DYNAMICS



- 3.1. Market Drivers
- 3.2. Market Challenges
- 3.3. Market Opportunities

#### CHAPTER 4. US SECOND GENERATION BIOFUELS MARKET INDUSTRY ANALYSIS

- 4.1. Porter's 5 Force Model
  - 4.1.1. Bargaining Power of Suppliers
  - 4.1.2. Bargaining Power of Buyers
  - 4.1.3. Threat of New Entrants
  - 4.1.4. Threat of Substitutes
  - 4.1.5. Competitive Rivalry
  - 4.1.6. Futuristic Approach to Porter's 5 Force Model
  - 4.1.7. Porter's 5 Force Impact Analysis
- 4.2. PESTEL Analysis
  - 4.2.1. Political
  - 4.2.2. Economical
  - 4.2.3. Social
  - 4.2.4. Technological
  - 4.2.5. Environmental
- 4.2.6. Legal
- 4.3. Top investment opportunity
- 4.4. Top winning strategies
- 4.5. Disruptive Trends
- 4.6. Industry Expert Perspective
- 4.7. Analyst Recommendation & Conclusion

#### CHAPTER 5. US SECOND GENERATION BIOFUELS MARKET SIZE & FORECASTS BY TYPE 2022-2032

- 5.1. Cellulosic Ethanol
- 5.2. Biodiesel
- 5.3. Bio Butanol
- 5.4. Others

#### CHAPTER 6. US SECOND GENERATION BIOFUELS MARKET SIZE & FORECASTS BY FEEDSTOCK 2022-2032



- 6.1. Simple Lignocellulose
- 6.2. Complex Lignocellulose
- 6.3. Syngas
- 6.4. Algae
- 6.5. Others

#### CHAPTER 7. US SECOND GENERATION BIOFUELS MARKET SIZE & FORECASTS BY PROCESS 2022-2032

- 7.1. Biochemical Process
- 7.2. Thermochemical Process

#### CHAPTER 8. US SECOND GENERATION BIOFUELS MARKET SIZE & FORECASTS BY APPLICATION 2022-2032

- 8.1. Transportation
- 8.2. Power Generation
- 8.3. Others

#### **CHAPTER 9. COMPETITIVE INTELLIGENCE**

- 9.1. Key Company SWOT Analysis
  - 9.1.1. Company
  - 9.1.2. Company
  - 9.1.3. Company
- 9.2. Top Market Strategies
- 9.3. Company Profiles
  - 9.3.1. ZeaChem
    - 9.3.1.1. Key Information
    - 9.3.1.2. Overview
    - 9.3.1.3. Financial (Subject to Data Availability)
  - 9.3.1.4. Product Summary
  - 9.3.1.5. Market Strategies
  - 9.3.2. POET, LLC.
  - 9.3.3. Algenol Biotech LLC
  - 9.3.4. Renewable Energy Group
  - 9.3.5. Company
  - 9.3.6. Company
  - 9.3.7. Company



9.3.8. Company9.3.9. Company9.3.10. Company

#### CHAPTER 10. RESEARCH PROCESS

10.1. Research Process

- 10.1.1. Data Mining
- 10.1.2. Analysis
- 10.1.3. Market Estimation
- 10.1.4. Validation
- 10.1.5. Publishing
- 10.2. Research Attributes



# **List Of Tables**

#### LIST OF TABLES

TABLE 1. US Second Generation Biofuels market, report scope

TABLE 2. US Second Generation Biofuels market estimates & forecasts by Type 2022-2032 (USD Billion)

TABLE 3. US Second Generation Biofuels market estimates & forecasts by Feedstock 2022-2032 (USD Billion)

TABLE 4. US Second Generation Biofuels market estimates & forecasts by Process2022-2032 (USD Billion)

TABLE 5. US Second Generation Biofuels market estimates & forecasts by Application 2022-2032 (USD Billion)

TABLE 6. US Second Generation Biofuels market by segment, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 7. US Second Generation Biofuels market by segment, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 8. US Second Generation Biofuels market by segment, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 9. US Second Generation Biofuels market by segment, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 10. US Second Generation Biofuels market by segment, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 11. U.S. Second Generation Biofuels market estimates & forecasts, 2022-2032 (USD Billion)

TABLE 12. U.S. Second Generation Biofuels market estimates & forecasts by segment 2022-2032 (USD Billion)

TABLE 13. U.S. Second Generation Biofuels market estimates & forecasts by segment 2022-2032 (USD Billion)

TABLE 14. List of secondary sources, used in the study of US Second Generation Biofuels Market.

TABLE 15. List of primary sources, used in the study of US Second Generation Biofuels Market.

TABLE 16. Years considered for the study.

 TABLE 17. Exchange rates considered



# **List Of Figures**

#### LIST OF FIGURES

FIG 1. US Second Generation Biofuels market, research methodology
FIG 2. US Second Generation Biofuels market, market estimation techniques
FIG 3. US market size estimates & forecast methods.
FIG 4. US Second Generation Biofuels market, key trends 2023
FIG 5. US Second Generation Biofuels market, growth prospects 2022-2032
FIG 6. US Second Generation Biofuels market, porters 5 force model
FIG 7. US Second Generation Biofuels market, pestel analysis
FIG 8. US Second Generation Biofuels market, value chain analysis
FIG 9. US Second Generation Biofuels market by segment, 2022 & 2032 (USD Billion)
FIG 10. US Second Generation Biofuels market by segment, 2022 & 2032 (USD Billion)
FIG 11. US Second Generation Biofuels market by segment, 2022 & 2032 (USD Billion)
FIG 12. US Second Generation Biofuels market by segment, 2022 & 2032 (USD Billion)
FIG 13. US Second Generation Biofuels market by segment, 2022 & 2032 (USD Billion)
FIG 14. US Second Generation Biofuels market by segment, 2022 & 2032 (USD Billion)



#### I would like to order

Product name: US Second Generation Biofuels Market Size study, by Type (Cellulosic Ethanol, Biodiesel, Bio Butanol, Others), by Feedstock (Simple Lignocellulose, Complex Lignocellulose, Syngas, Algae, Others), by Process (Biochemical Process, Thermochemical Process), by Application (Transportation, Power Generation, Others) Forecasts 2022-2032

Product link: https://marketpublishers.com/r/U193A3D44738EN.html

Price: US\$ 6,250.00 (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 <u>https://marketpublishers.com/r/U193A3D44738EN.html</u>

# To pay by Wire Transfer, please, fill in your contact details in the form below:

First name: Last name: Email: Company: Address: City: Zip code: Country: Tel: Fax: Your message:

\*\*All fields are required

Custumer signature \_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <u>https://marketpublishers.com/docs/terms.html</u>



To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970