In 2007, China’s fuel ethanol output reached 1.6 million tons, of which 80% used corn as raw materials. Based on the proportion 1:3.3, more than four million tons of corn was consumed.

In 2008, China’s fuel ethanol production capacity will increase rapidly, thanks to several fuel ethanol projects to be put into operation successively in the year. It is estimated that China’s annual fuel ethanol output will reach five million tons in 2010 and utilization rate of ethanol gasoline will be more than 50%. Moreover, corn-based ethanol has stopped expanding production capacity, as government policies have clearly restricted the development of grain-based ethanol. Therefore, developing non-grain ethanol has become an inevitable trend.
China Key Producers of Fuel Ethanol, 2007

<table>
<thead>
<tr>
<th>Enterprises</th>
<th>Production capacity (10,000t/y)</th>
<th>Supply regions</th>
<th>Raw materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jilin Ethanol Fuel Co.</td>
<td>40</td>
<td>Jilin and Liaoning provinces</td>
<td>corn</td>
</tr>
<tr>
<td>China Resources Alcohol</td>
<td>10</td>
<td>Heilongjiang provinces</td>
<td>corn</td>
</tr>
<tr>
<td>(Heilongjiang) Co.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Henan Tianquan Group Co.</td>
<td>30</td>
<td>Henan, Hebei and Hebei provinces and another ten cities</td>
<td>mainly wheat</td>
</tr>
<tr>
<td>Anhui 88CA Biochemical Co.</td>
<td>44</td>
<td>Anhui, Shandong, Jiangsu and Hebei provinces and another ten cities</td>
<td>corn</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: ResearchInChina

China’s domestic enterprises have accelerated biodiesel development. China’s some conglomerates have completed their trial production of biodiesel, including China National Petroleum Corp., China’s largest natural gas and crude oil producer, COFCO, the largest importer and exporter of grains, and China National Off-shore Oil Corp., China’s largest off-shore oil producer. It is forecasted that China’s biodiesel output will increase rapidly in 2008 and 2009 and will reach two million tons in 2010.

Biodiesel Projects under Construction or in the Pipeline in China

<table>
<thead>
<tr>
<th>Province</th>
<th>Scale (10,000t/y)</th>
<th>Company</th>
<th>Construction period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner Mongolia</td>
<td>25</td>
<td>Tianhong (Tongli) Biological Science &amp; Technology Co.</td>
<td>2007-2008</td>
</tr>
<tr>
<td>Guangxi</td>
<td>20</td>
<td>Guanxi Lushou Minghu Biofuels Co.</td>
<td>2008-2009</td>
</tr>
<tr>
<td>Henan</td>
<td>10</td>
<td>Luoyang Tiancheng Bio-engineering Co.</td>
<td>2006-2008</td>
</tr>
<tr>
<td>Shanghai</td>
<td>15</td>
<td>Shanghai, Shengxi Biochemical Science Technology Co.</td>
<td>2007-2008</td>
</tr>
<tr>
<td>Hebei</td>
<td>10</td>
<td>Hebei Zhongning Bio-fuel Co.</td>
<td>2006-2007</td>
</tr>
<tr>
<td>Henan</td>
<td>10</td>
<td>Jiyuan Zhongyi Petrol Industry Co.</td>
<td>2006-2008</td>
</tr>
<tr>
<td>Henan</td>
<td>10</td>
<td>Luoyang Jinling Chemical Industry Co.</td>
<td>2006-2010</td>
</tr>
</tbody>
</table>

Source: ResearchInChina
China's biological energy power generation has developed rapidly and the total installed capacity has reached 2.2 million kW, of which 1.7 million kW was from Bagasse co-generation and 500,000 kW was powered by agriculture and forestry wastes, methane, direct-burning of rubbish and landfill gas. Generally speaking, efforts made to develop biological energy are still limited, therefore, China's bioenergy has a huge potential for future development.

China has sufficient raw materials resources for production of biomass. Only the agricultural wastes can be converted into energy, which is equivalent to 500 million tons of standard coal and 350 million tons of crude oil (about 2.5 billion barrels).

Chinese government has strongly supported the development of bioenergy and has launched preferential policies for biomass energy producers, including tax breaks and direct subsidies to some products.

Based on abundant information from the National Bureau of Statistics and listed companies, this report makes an in depth study on the current situation, main categories, policy, development potential and key enterprises of bioenergy industry, makes an analysis of development characteristics of fuel ethanol, biodiesel, biomass power generation and makes a comparison between profitability of fuel ethanol by different raw materials. Additionally, this report also forecasts the development trend of China bioenergy industry.
Table of Contents

- 1. Status Quo of China Bioenergy Industry
  1.1 Overview
     1.1.1 Development Prospect
     1.1.2 Advantages and Disadvantages
  1.2 Operation Status of China Bioenergy Industry, 2007
     1.2.1 Operation Status of China Fuel Ethanol Industry, 2007
     1.2.2 Operation Status of China Biodiesel Industry, 2007
     1.2.3 Operation Status of China Bioenergy Power Generation Industry, 2007

- 2. Industrial Environment for China Bioenergy Industry
  2.1 Economic Environment
     2.1.1 China Macro Economy Overview
     2.1.2 Monetary Policy
     2.1.3 Financing Environment
  2.2 Policy Environment

  3.1 Status Quo of Grain-based Ethanol Industry, 2007
     3.1.1 Overview
     3.1.2 Profitability Analysis
     3.1.3 Production Efficiency Analysis
     3.1.4 Raw Materials Supply Analysis
     3.1.5 Development Prospect

  4.1 Overview
  4.2 Raw Material Resources
     4.2.1 Status Quo of Rape Biodiesel
     4.2.2 Status Quo of Jatropha Curcas Biodiesel
     4.2.3 Biodiesel by Other Raw Materials
  4.3 Biodiesel Technology and Equipment
  4.4 Investment Analysis
  4.5 Development Prospect

  5.1 Overview
  5.2 Projects of Bioenergy Power Generation, 2005-2007
  5.3 Crop Stalks Power Generation Industry
     5.3.1 Overview
     5.3.2 Biomass Power Generation Projects Under Construction

3.2 Status Quo of China Non-grain Ethanol Industry, 2007
  3.2.1 Overview
  3.2.2 Overview of Raw Materials
  3.2.3 Production Efficiency Analysis
  3.2.4 Profitability Analysis
  3.2.5 Development Prospect
5.4 Methane Power Generation Industry
  5.4.1 Overview
  5.4.2 Economic Benefits
  5.4.3 Methane Resources Potentials
  5.4.4 Methane Power Generation Projects, 2007

6. Key Enterprises
  6.1 Anhui BBCA Biochemical Co., Ltd
     6.1.1 Profile
     6.1.2 Operation, 2007
     6.1.3 Ownership Structure
     6.1.4 Finance Analysis
     6.1.5 Development Trend
     6.2 Jilin Fuel Ethanol Co., Ltd
     6.2.1 Profile
     6.2.2 Latest Development
     6.2.3 Development Trend
     6.3 Beihai Gofar Marine Biological Industry Co., Ltd
     6.3.1 Profile
     6.3.2 Operation, 2007
     6.3.3 Ownership Structure
     6.3.4 Finance Analysis
     6.3.5 Development Trend
     6.4 Hainan Yedao (Group) Co., Ltd
     6.4.1 Profile
     6.4.2 Operation, 2007
     6.4.3 Ownership Structure
     6.4.4 Finance Analysis
     6.4.5 Development Trend
     6.5 Petrochina Co., Ltd
     6.5.1 Profile
     6.5.2 Operation, 2007
     6.5.3 Latest Development
     6.5.4 Finance Analysis
     6.5.5 Development Trend
     6.6 CNOOC
     6.6.1 Profile
     6.6.2 Latest Development
     6.6.3 Development Trend
     6.7 Henan Tianguan Group Co., Ltd
     6.7.1 Profile
     6.7.2 Latest Development
     6.7.3 Development Trend
     6.8 Huadian Power International Co., Ltd
     6.8.1 Profile
     6.8.2 Operation, 2007
     6.8.3 Ownership Structure
     6.8.4 Finance Analysis
     6.9 National Bio Energy Co., Ltd.
     6.9.1 Profile
     6.9.2 Investment Projects
     6.9.3 Development Trend
     6.10 Xinhua Zhongke Bioenergy Power Generation Co., Ltd
     6.10.1 Profile
     6.10.2 Investment Projects
     6.10.3 Development Trend
     6.11 Wuxi Huaguang Boiler Co., Ltd
     6.11.1 Profile
     6.11.2 Operation, 2007
     6.11.3 Ownership Structure
     6.11.4 Finance Analysis
     6.11.5 Development Trend

  7.1 Development Trend of Fuel Ethanol
  7.2 Development Trend of Biodiesel
  7.3 Development Trend of Bioenergy Power Generation
Selected Charts

China Corn Consumption, 2005-2007
Sales Revenue Structure of BBCA Biochemical Co., Ltd, 1H 2007
Sales Revenue Structure of Petrochina, 2007
Sales Revenue Structure of Huaguang, 1H 2007
Advantages and Disadvantages of China Bioenergy development
Some Key Enterprises of China Fuel Ethanol Industry, 2006
Reserves Ratio Adjustment of Central Bank over the Years
Costs of Tapioca-based and Corn-based Fuel Alcohol (according to market average price, 1H 2007)
Sensitivity Analysis about Fuel Athanol and Corn Price's Impact on Profits of Fuel Ethanol
Part of Biodiesel Projects, 2006-2007
Some Projects Of Being or Will be Constructed by regions
Constructed projects of Bioenergy Power Generation, 2005-2007
Bioenergy Power Generation Projects being constructed, 2007
Sewage Treatment in China Cities
Part of Metane Power Generation Projects, 2007
Ten Key Shareholders of BBCA Biochemical Co., Ltd, June30, 2007
Profitability of BBCA Biochemical Co., Ltd
Operation Ability of BBCA Biochemical Co., Ltd
Capital Structure of BBCA Biochemical Co., Ltd
Development Ability of BBCA Biochemical Co., Ltd
Ten Key Shareholders of Beihai Gofar, June 30, 2007 (CNY million)
Debt-paying Ability of Debt-paying Ability of
Development Ability of Beihai Gofar
Main Operation Data of Hainan Yedao, 2003-2007 (CNY million)
Operation ability of Hainan Yedao
Development Ability of Hainan Yedao
Profitability of PetroChina
Main Operation Data of Huadian, 2003-2007 (CNY million)
Capital Structure of Huadian
Ten Key Shareholders of Huaguang, June 30, 2007 (CNY million)
Debt-paying Ability of BBCA Biochemical Co., Ltd
# How to Buy

<table>
<thead>
<tr>
<th>Product details</th>
<th>How to Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single user</td>
<td>By email: <a href="mailto:report@researchinchina.com">report@researchinchina.com</a></td>
</tr>
<tr>
<td>2,000 USD</td>
<td>By fax: 86-10-82600829</td>
</tr>
<tr>
<td>PDF</td>
<td>By online: <a href="http://www.researchinchina.com">www.researchinchina.com</a></td>
</tr>
<tr>
<td>Enterprisewide</td>
<td></td>
</tr>
<tr>
<td>3,000 USD</td>
<td></td>
</tr>
<tr>
<td>PDF</td>
<td></td>
</tr>
<tr>
<td>Publication date: March 2008</td>
<td></td>
</tr>
</tbody>
</table>

For more information, call our office in Beijing, China:
Tel: 86-10-82600828
Website: www.researchinchina.com