This report

◆ analyzes the development natural gas in China and worldwide

◆ Focuses on the unconventional natural gas and natural gas downstream

◆ Highlights the operation of Integrated Oil and Gas enterprises and shale gas companies in China.

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Abstract

In 2010, the output of natural gas grew steadily in China, and the volume of natural gas and liquefied natural gas (LNG) imported from Central Asia continued to increase, as a result, the resource supply increased substantially. The gas demand kept rapid growth, the consumer market was further expanded, and except for the tight natural gas supply in some regions in winter, the overall supply and demand remained stable. According to BP, China’s output of natural gas reached 96.8 billion cubic meters in 2010, up 13.5% YoY; the consumption of natural gas in China exceeded 100 billion cubic meters for the first time, up 21.8% YoY.

In the same year, unconventional natural gas projects in China made progress to some extent, e.g., some coalbed methane (CBM) projects entered into operation, while shale gas ones started initial exploration and exploitation.

In the field of coalbed methane, China ranks third globally with reserves of about 36.8 trillion cubic meters, one third of which is distributed in Shanxi Province. Currently, there are many companies engaged in coalbed methane business in China, and the details are as follows:

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<th>Enterprise</th>
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<tr>
<td>PetroChina (601857.SH)</td>
<td>It's the largest developer of coalbed methane in China, and a major force in the future pipe network construction.</td>
</tr>
<tr>
<td>CNOOC (00883.HK)</td>
<td>It holds 50% stake in China United Coalbed Methane Co., Ltd. (CUCBM).</td>
</tr>
<tr>
<td>Sinopec (600028.SH)</td>
<td>It deals with coalbed methane business through joint venture Shanxi Guohua Energy Co., Ltd.</td>
</tr>
<tr>
<td>Sino Oil and Gas (0702.HK)</td>
<td>It owns 70% equity of the coalbed methane project (with reserves of 43.5 billion cubic meters) in Sanjiao.</td>
</tr>
<tr>
<td>Xinjiang Zhundong Petroleum Technology (002207.SZ)</td>
<td>Its wholly-owned subsidiary Xinjiang Zhundong Petroleum Energy Co., Ltd. is applying for the exploration right of the coalbed methane in Baicheng and Kuche, Xinjiang, but hadn’t got approval by the end of 2010, so the investment now suspends.</td>
</tr>
<tr>
<td>Enviro Energy (1102.HK)</td>
<td>Xinjiang Project, Qinhui Basin, Qian An Oilfield Coalbed Methane Project.</td>
</tr>
<tr>
<td>Green Dragon Gas (GDG.LN)</td>
<td>It mainly explores and exploits in south Sichuan and Guizhou.</td>
</tr>
<tr>
<td>New Smart Energy (00091.HK)</td>
<td>It deals with coalbed methane business in Anhui Province through its wholly-owned subsidiary Canada Can-Elite Energy Limited; relevant exploration is still at the initial stage.</td>
</tr>
<tr>
<td>LandOcean Energy Services (300157.SZ)</td>
<td>It plans to acquire 42.4% stake in Henan Zhongyu Coalbed Methane for RMB 150 million, entering into coalbed methane business.</td>
</tr>
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Source: ResearchInChina
In the field of shale gas, in July 2011, China awarded its first two shale gas blocks out for tender to China Petroleum & Chemical Corp (Sinopec) and provincial coal seam gas company Henan CBM, the former won the Nanchuan block while the latter was awarded the Xiushan block.

Besides the market development of conventional natural gas and unconventional ones like coalbed methane and shale gas, this report also introduces the operation of relevant companies of oil-gas, coalbed methane and shale gas.

China National Petroleum Corporation (CNPC) is an integrated energy company, and its natural gas business involves conventional natural gas and unconventional ones like coalbed methane and shale gas. Its natural gas and pipeline business achieved operating revenue of RMB 115.181 billion in 2010, up 50.64% YoY; in the same year, its CBM business made a breakthrough in the new proved reserves which exceeded 100 billion cubic meters, forming a capacity of 1.3 billion cubic meters.

China United Coalbed Methane Co., Ltd., a subsidiary of CNOOC, is granted a franchise for cooperation with foreign enterprises in CBM exploration, development and production. It owns 27 CBM blocks, covering a total area of 20,151 square kilometers, including 14 blocks with a total area of 15,915 square kilometers in cooperation with foreign enterprises.

Through subsidiary Jilin Chengda Hongsheng Energy Co., Ltd., Liaoning Chengda Co., Ltd. is engaged in the development and utilization of oil shale project, with a total investment of RMB 1.8 billion for the first phase of the project.
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