The Huaibei Mining (Group) Co, Ltd. is one of the largest coal companies in China, with 14 active coal mines producing 16 million tonnes of coal annually. Production is increasing as new mine construction continues. These mines liberate approximately 210 million cubic meters (7.4 billion cubic feet) of methane annually, creating significant opportunity for investment in coal mine methane recovery and utilization projects.

The Huaibei Mining (Group) Co, Ltd. seeks investment for:

- Providing coal mine methane to residential users in the Suxian mining area
- A coal-mine methane-fueled power generation plant at the Luling mine

Huaibei Mining Group sincerely welcomes investors from China and abroad to invest in the proposed coal mine methane development projects described in this brochure.
OVERVIEW OF THE HUAIBEI MINING (GROUP) COMPANY LTD.

The Huaibei Mining (Group) Co. Ltd. (informally known as the Huaibei Mining Group) is one of the largest coal producing areas in China. Located in northern Anhui Province, the company has total assets of the 7.5 billion yuan ($US 907 million) and annual sales revenue is up to 4.5 billion yuan ($US 544 million).

Coal mine methane resources in the Huaibei mining area are estimated at more than 300 billion cubic meters (10.6 trillion cubic feet). Because this resource is so abundant, and because demand for energy in eastern China is high, coal mine methane is now being promoted as one of the Huaibei Mining Group’s key industries.

CURRENT STATUS OF METHANE RECOVERY AT THE HUAIBEI MINING AREA

Mines in the Huaibei area are gassy and prone to coal and gas outburst. Coal mine methane utilization began in the Huaibei area in 1973, and currently, four of Huaibei’s 14 active coal mines recovers methane for use as fuel. These mines drain nearly 18 million cubic meters (632 million cubic feet) of methane annually. Of this, one mine (Luling) recovers about 8 million cubic meters (282 million cubic feet) for cooking and heating at some 5000 households in the mining area.

In addition to methane drainage from these underground mines, Texaco and China United CBM are jointly producing coalbed methane from surface wells in the Huaibei area. Seven surface wells have been drilled to date. If testing is successful, these wells will begin commercial production. Coalbed methane resources of the Huaibei area are estimated at more than 300 billion cubic meters (10.6 trillion cubic feet).

The facing page describes two coal mine methane utilization projects for which the Huaibei Mining Group seeks outside investment.
The proposed project would increase coal mine methane drainage in the Suxian mining area to 40 million cubic meters (1.4 billion cubic feet) annually, and would supply all of this methane to local miner’s households as well as those in the city of Suxian. The methane would be drained using cross-measure boreholes and gob wells. The Huaibei Mining Group proposes laying two main pipelines, totaling 47 km, from the coal mining area to the city of Suzhou. They would also install a 100,000 cubic meter (3.5 million cubic feet) gas storage tank on the southern edge of Suzhou. Total cost of this project is estimated at 164 million yuan ($US 19.8 million). Of this total, Huaibei Mining Group would provide 35%, and is seeking the remaining 65% from outside investment or financing sources. The project would start in 2002, and would be fully implemented by 2004.

The project would use 40 million cubic meters of methane annually and would replace 189 thousand tonnes of coal. Together, this is equivalent to reducing emissions of more than 1 million tonnes of CO₂ annually.

**Preliminary Economic Analysis**

<table>
<thead>
<tr>
<th>Investment</th>
<th>164 million yuan ($US 20 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPV</td>
<td>53 million yuan ($US 6.4 million)</td>
</tr>
<tr>
<td>IRR</td>
<td>22%</td>
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<tr>
<td>Payout</td>
<td>8 years</td>
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<tr>
<td>Project Life</td>
<td>30 years</td>
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</tbody>
</table>

**COAL MINE METHANE-FUELED POWER GENERATION PROJECT, LULING MINE**

This project would construct a gas turbine power generation plant at the Luling mine, supplying power to the local grid. The project would use methane from the Luling and Zhuxianzhuang mines to fuel two 2 MW turbines, and would generate a total of 28.8 million kWh per year, plus 12 tonnes of steam per hour.

Total estimated capital investment for this project will be 17 million yuan ($US 2.1 million). The Huaibei Mining Group is seeking outside financial and technical assistance to implement the project.

The project would recover 14 million cubic meters of methane annually, the equivalent of reducing more than equivalent of reducing more than 216,240 tonnes of CO₂ annually.
PARTNERSHIPS SOUGHT

The Huaibei Mining Group Co. Ltd. seeks investors interested in helping finance one or both of these projects. Based on the preliminary economic analysis described herein, these projects are potentially highly profitable, and provide the added benefit of reducing emissions of methane and other greenhouse gases.

In particular, Huaibei Mining Group seeks the following:

- Equity investment in the form of joint venture partners
- Partners with technical expertise in power projects
- Equipment lease to initiate the power generation project

Huaibei Mining Group recognizes that investment in these projects entails certain inherent risks, such as potential fluctuations in CMM and electricity sales prices. We can help potential investors determine the potential range of these prices for use in economic modeling of project potential. We will make every effort to address the concerns of investors and help them meet their goals. With a high credit rating and strong expertise in coal mine methane drainage, Huaibei Mining group is a reliable partner.

HOW TO BEGIN WORKING WITH US

Huaibei Mining Group encourages those interested in project opportunities in the Huaibei Mining Area to contact them for more information. In conjunction with the China Coalbed Methane Clearinghouse, we have prepared market packages describing these opportunities in more detail. The data package includes maps, information on energy prices, markets, preferential tax policies and more, and is available to interested parties upon request.

"Investors and developers are welcome to join hands with the Huaibei Mining (Group) Co., Ltd. to develop and use coalbed methane in the Huaibei mining area, and jointly create a bright future."—Song Congshu, Chairman

**Summary: Preliminary Analysis of Project Opportunities**

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>CH₄ USED (10⁶ m³ per year)</th>
<th>CAPITAL COST ($US million)*</th>
<th>NPV ($US million)</th>
<th>IRR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Use</td>
<td>40</td>
<td>19.8</td>
<td>6.4</td>
<td>20</td>
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<tr>
<td>Power Generation</td>
<td>14</td>
<td>2.1</td>
<td>2.2</td>
<td>36</td>
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<tr>
<td>Total</td>
<td>54</td>
<td>21.9</td>
<td>8.6</td>
<td></td>
</tr>
</tbody>
</table>

*Based on exchange rate of 8.30 yuan per $US 1
Assumes project life of 30 years for residential use project, 20 years for power generation project

Please visit www.coalinfo.net.cn/coalbed for updated information that may be available on the status of activities and development plans in the Huaibei Mining Area.