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Guide

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According to *A Plan of Coalbed Methane Comprehensive Control and Use in Chongqing*, in the next five years, Chongqing will follow the development plan and input 0.155 billion RMB in the construction of five large-scale gas power stations. Those five gas power stations are constructed by five big mining corporations, such as Zhong Liangshan, Yong Rong and Tian Fu, which all belong to the Chongqing Coal Group. The anticipated annual energy output of the five power stations amounts to 0.5 kw., which can meet the need of coalmine production and residents' power use around the coalmines.

Henan province recently put forward a near-term target of coalbed methane drainage mining and utilization of the whole province, aiming at the above-30% coalbed methane drainage and mining rate at the end of 2007 and forming a new pattern of coalbed methane utilization in which generation of electric energy takes up the most part.

Some of coalbed methane projects of the China Coal Information Institute are getting along smoothly, some of which have entered the acceptance inspection stage.

Content

Hongkong Invests in the Inland Coalbed Methane Industry for the First Time

During the Shanxi (Hongkong) Investment and Negotiation Meeting concluded on July 28, 2006, some well-known Hongkong corporations, such as Hongkong Haode Group and Hongkong and China Gas Corporation signed a contract of several large-scale coalbed methane exploration and processing projects, which denotes a successful initiation of Hongkong investment in the inland coalbed methane industry.

Shanxi province is the most resourceful area of the coalbed methane resources in the whole country, where there are some 10 thousand billion cu. m. of coalbed methane resources within 2000m underground, which amount to 1/3 of the whole country's total reserves. The coalbed methane of Shanxi has many outstanding features, such as concentrated distribution, shallow coalbed，easy exploration, and high percentage of methane（above 95%）, hence has an advantage of the large-scale exploration and a very promising prospect. Under the circumstances of the successive international new high ceiling oil prices, the exploration of the coalbed methane is also heated. During the Shanxi (Hongkong) Investment and Negotiation Meeting in 2006,

Hongkong Haode Group and Jincheng signed a 50-million-dollar contract of a coalbed methane liquefaction project, Hongkong China Leason Investment Group and Tingdian government of Yangcheng County signed a 50-million-dollar contract of the coalbed methane exploration. Hongkong and China gas Corporation signed a framework agreement of developing coalbed methane resources with Shanxi government, the initial investment amounts to 0.1 billion US dollars. After being liquefied, the coalbed methane will be transported by trucks nationwide. It is predicated that a year later Henan and Hebei provinces will enjoy this energy support. Besides, Winkey (Hongkong) Group Ltd. decided to inspect the coalbed methane project in Da'ning county in the near future.

At present, the Shanxi coalbed methane industry has formed a comprehensive utilization industry chain which connecting the three reaches---the upper, the middle and the lower. The Hongkong huge investment in the inland coalbed methane industry not only actively pushes forward the development of the coalbed methane industry, but also promotes cooperation between Hongkong and Shanxi in the coal-chemical-industry related areas.

Coalbed Methane Project Comes into Operation in Qinyuan, Changzhi, Shanxi Province

With the first drilling machine operating on a well in Zhengzhong village, Jiaokou town, Qinyuan county, Shanxi 114 coal geographic reconnaissance institute began with its well bore drilling, and the first large-scale coalbed methane gasfield in Changzhi--- Qinyuan mining area Coalbed Methane Project was formally under construction.

The coalbed methane project of Qinyuan mining area in Shanxi province is the first large-scale coalbed methane exploration project in Changzhi, and is jointly developed by China United Coalbed Methane Co., Ltd. and US Greka Energy Company for 30 years. The development of the project consists of three stages: reconnaissance, development and production. Now the first stage is in process---the reconnaissance period, which will last 3—5 years. US Greka Energy company will provide 20 million US dollars for the reconnaissance, and the drilling task will be carried out by Shanxi 114 coal geographic reconnaissance institute. According to someone in charge of the 114 reconnaissance institute, for the fulfillment of the reconnaissance, qualified technical force and the first level drilling equipment of the country will be contributed. The major task during the reconnaissance stage is to drill a battery of wells

for the coalbed methane exploration in the alter stage.

According to the introduction, the developing area of the project is located in Qinyuan and Qin county, and the area occupies 3664.5 sq. km. It is anticipated that the main coalbed thick is 1－2 meters, and the gas reservoir is about 550 billion cu. m. and the prospect of its development is very promising.

Heilongjiang Coalfield Geologic Bureau Cooperate with the US RDT Energy Company in Coalbed Methane Exploration

The Heilongjiang Coalfield Geologic Bureau and US RDT Energy Developing Technical Company Ltd recently signed an agreement of intent on the joint reconnaissance and development of the coalbed methane resources in Heilongjiang.

The US RDT Company mainly deals with the exploration of oil, natural gas and coalbed methane, and has begun to make preparations for entering the China market since 2005. RDT Company is quite interested in the reconnaissance and exploration situation and the resources of the coalbed methane in Heilongjiang. The CEO of the company came to Heilongjiang last year for an inspection, and after many technical exchanges he made the decision of cooperating with the province in developing the new clean energy.

Heilongjiang enjoys favorite coalbed methane geological conditions and thus attracts foreign capital and techniques in developing the coalbed methane resources in the province, which helps to settle the problems of capital and techniques shortage for the time being.

Construction of China's First Horizontal Well was Successfully Completed

The PHH-001 well constructed by the T130 well team of the No. two exploration team of the Shandong Coalfield Geologic Bureau was successfully completed recently. This is the first coalbed methane horizontal well with intellectual property rights of our country.

PHH-001 horizontal well is located in Qinshui county, Shanxi province, with one main well bore and 4 lateral well bores. The depth of the main well is 1313m. The length of the four lateral wells is altogether 176m, whose total drilling depth through coalbed is 861m, and the penetration rate of the coalbed amounts to 91%. With very effective techniques, T130 well team conquered many technical problems, such as the thinness and intricate formation of the coalbed, the looseness of the coal texture which easily results in collapse, instable stratum, many refractionations, sharp changes of the tilt angle,

and the difficult drilling adjustment through coalbed. At last, 39 days' efforts brought the fulfillment of the construction on June 16, 2006.

That is the first successful fulfillment of the multi-lateral horizontal well in the coal mining system. And at in the mean time, it indicates five great technical breakthroughs: first, it is the first time that homemade equipment and techniques are successfully applied to the construction of the horizontal well through coalbed; second, it realizes a technical breakthrough of the multi-lateral horizontal well as well as completes the distant horizontal main well through coalbed; third, the drilling depth of the main well through coalbed amounts to 685m; fourth, effective safety technique measures during the whole operation have avoided any safety accidents in well; fifth, the successful application of GRWD precisely calculates the stratum and helps to make adequate adjustment of the drilling track, which results in an increase in the penetration rate of the coalbed.

The successful completion of the PHH-001 well indicates another breakthrough in drilling techniques and craftwork brought by the team No. two of the Shandong station. It is also a beneficial attempt of the large-scale coalbed methane commercial development, open up a new area of coalfield reconnaissance and construction, and provides valuable experience for drilling lateral horizontal well in thin coalbed and other sophisticated coalbed.

The Chongqing Coal Mining Group Will Construct Five Large-Scale Gas Power Stations

According to *A Plan of Coalbed Methane Comprehensive Control and Use in Chongqing*, in the next five years, Chongqing will follow the development plan and input 0.155 billion RMB in Chongqing Coal Group's construction of five large-scale gas power stations.

It is surveyed that the gas resources in Chongqing coalmines are very abundant, with reserves amounting to a hundred billion cu. m. Due to unduly exploration and utilization, over 70% drained gas is discharged for nothing. According to the develop plan, in the next five years, Chongqing will input 0.155 billion RMB in the construction of five large-scale gas power stations. Those five gas power stations are constructed by five big mining corporations, such as Zhong Liangshan, Yong Rong and Tian Fu, which all belong to the Chongqing Coal Mining Group. The anticipated annual energy output of the five power stations amounts to 0.5 kilowatt hour, which can meet the need of coalmine production and residents' power use around the coalmines.

30% Coalbed Methane Will Be Drained and Utilized in Henan Next Year

Henan province recently put forward a near-term target of coalbed methane drainage mining and utilization of the whole province, aiming at the above-30% coalbed methane drainage rate at the end of 2007 and forming a new pattern of coalbed methane utilization in which generation of electric energy takes up the most part.

Henan is a major coal-producing province in our country, and enjoys abundant coalbed methane resources. In order to enhance the reconnaissance and exploration of the coalbed methane resources, the Henan Coal Industry Bureau will target Jiaozuo, Anhe, Pingdingshan and other coal mining areas, and try to formulate a whole set of mature reconnaissance, exploration and utilization techniques of the coalbed methane in order to make good preparations for the further large-scale commercial development of the coalbed methane. At the same time, they will take into consideration the practical situations of different coal mining areas, carry out a full-scale reformation of the current coalbed methane drainage system and pipelines in these two years, and try to realize the above-30％ coalbed methane drainage rate at the end of 2007, and over 50% in 2010.

At present, Pingdingshan Coal Mining Group, Yima Coal Mining Group, Coking Coal Group and others are constructing the coalbed methane power stations. In 2007, the annual coalbed methane utilization scale of those power stations will amount to 0.22 billion cu. m., and the installed capacity will amount to 0.17 million kw.

The Biggest Coal Chemical Industry Base in the World Started in Shaanxi Province

On August 24, someone in charge of the Shanxi Xin Xing Coal Chemical Industry and Technology Developing Co., Ltd. (henceforth Xin Xing Company) pronounced that it will make joint efforts with many groups and enterprises to start an annual 3-million-ton coal chemical industry project construction. Some informative persons said that a number of coal mining groups in China have contacted with Xin Xing Company. It is informed that Shanxi Investment Group holds 51% shares of stock of Xin Xing Group.

According to the anticipation of Liu Zhongmin, the person in charge of techniques of the project who comes from Dalian Institute of Chemical Physics of the Chinese Academy of Sciences, the total investment will surpass 15 billions RMB, and the project will bring forth the biggest coal chemical industry base in the world.

At present, Xin Xing Company has finished the 15-thousand-ton test work of the project, the pre-construction investment is over 80 million RMB.

Some person in charge of Xin Xing Company mentioned that, 'Our investment in the project is mainly based on the consideration of the rapid increase of the current oil price in the world, and its result in the tendency of finding some oil substitute via coal chemical industry techniques.' He also said that, 'Even if the international oil price drops at 35 dollars, the coal chemical industry techniques can still be profitable. If the project is backed up with coalmines, its risk can be further reduced.'

Some Coalbed Methane Projects of China Coal Information Institute Get along Smoothly

Entrusted by Hebi Coal Mining (Group) Ltd, China Coal Information Institute has made a feasibility study of the coalbed methane ground drainage and mining engineering in the minefield within Hebi mining area. At present, the feasibility study report has completed, successfully passed the expert assessment and acceptance inspection of the project organized by the Hebi Coal Mining Group, and made the project report to the Henan Coal Office. The minute project planning will be carried out in the future.

According to the power generation project of Songzao Coal and Electricity Company Ltd, there will be some comprehensive utilization of coalbed methane, in which the installed gross capacity is 20MW. The project is developed under the mechanism of clean development, and follows the concept of using some amount of drained CMM to generate electricity. During August 28-30, 2006, DNV made the verification and confirmation of Songzao's CDM project, and the formal application materials was reported to the National Development and Reform Committee at the end of October, 2006. It is predicated that the project will be assessed at the end of November.

The coalbed methane CDM project of Tie Fa mining field is carried on under a framework of the clean development mechanism, aiming at turning some drained methane (for the safety's sake) into a fuel material, including for drying and kilning in Fa Ku earthenware town, drying during the electroplating process in the ferroboron plant, and city coal gas in the cities of Tieling and Diaobingshan. The project saw its pre-assessment meeting at the end of October, 2006, during which opinions of the attending leaders and experts from the National Development and Reform Committee were

listened to. Now, the project design documentation is undergoing revisions, and it is predicated that the formal application materials will be reported to the National Development and Reform Committee in the middle of November, 2006.

After negotiations and preparations for almost a year, the coalbed methane CDM project of Ji Xi mining field finally saw the subscription of a cooperating protocol with foreign corporations in August, 2006. Now the project gets into the stage of collecting data for making PDD documents.

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