### Spotlight on Business Development

In 2006, the business of coal, railway, port and power of China Shenhua had all seen developments. There were new highlights in all aspects of our operations, building a solid foundation and affording new competitive edges for the innovations and long-term development of the Company.

The followings are new segmental highlights in 2006:

#### **Bulianta Mine**

The geological conditions of Bulianta mine are simple and natural disasters are few. It is a underground mine of a low methane gas level. Its principal types of coal are premium thermal coal and coal for chemical processes, which have low dust, sulfur and phosphorous content and medium to high calorific value. In 2006, production volume of the commercial coal of Bulianta mine topped 20 million tonnes, thus making it the largest underground mine both in China and in the world. From 2000 to 2002, Bulianta mine obtained the ISO9001 quality system certification and ISO14001 environmental management system certification for occupational safety and hygiene management system. It has received the "Super-grade Underground Mine of High Production Volume and High



Bulianta mine at the Shendong Mines

Production Efficiency in the Industry" accreditation awarded by the China Coal Industry Association for eight consecutive years. In 2006, it received the four-star safety, health and environment management system certification awarded by the South Africa National Occupational Safety Association (NOSA), thus becoming the first coal company in China receiving such four-star certification.

#### State-of-the-art Underground Mining

By optimising the layout of the mining area and panels, a comprehensive extended panel, which is 5.5 meters in height and 300 meters in length, has been constructed. Automatic technology has been applied to set up the automatic control system. Electro-hydraulic supports control and coal machine memory slicing have been achieved as a result of the comprehensive panels.

# Establishing a Management Philosophy based on "Environment, Quality and Responsibility"

We have introduced and implemented the NOSA occupational health and safety comprehensive management system and maintained our management of quality, safety and hygiene, which is foremost in the industry. Up to now, the entire mine has lived through the sixth year with 76 million tonnes of coal having been mined without any fatality.

#### Emphasis on the Commitment to Environmental Protection and the Construction of a Green and Environmentally Friendly Coal Mine

We purify and recycle waste water for production and for fishfarming. For every tonne of coal mined, a sum of RMB0.45 is set aside for the greening of environment, such as the forming of a tree belt, the control of sand storm and environmental protection. An aggregate of 160,000 trees have been planted with a green zone of 830,000 sq.m. We use closed corridors for the coal conveyors to combat dust pollution.



#### **Huangwan Railway**

The Huangwan Railway connects the Shuohuang Railway at Huanghua South Station to the Shenhua Tianjin Coal Dock, which has a total length of 67 km with a designed short-term transport volume of 37.5 million tonnes and a long-term transport volume of 42 million tonnes. The construction of Huangwan Railway was completed in October 2006.

The Huangwan Railway opens up new routes for the transportation to seaports enroute its eastbound transportation, thereby realising the direct transportation of Shenhua coal to the Nanjiang port area in Tianjin via Shuohuang Railway, which is 60 km shorter than if transported on State-owned railways. Based on the short-term transport volume of Huangwan Railway, which is 37.5 million tonnes, this represents a significant annual direct saving for China Shenhua of approximately RMB27 million.



Loading of large vessels at Shenhua Tianjin Coal Dock

#### Shenhua Tianjin Coal Dock

The Shenhua Tianjin Coal Dock is located at the east end of Nanjiang Port at Tianjin Port, having three berths. Its construction was completed in October 2006. It is an important channel for seaborne transportation in our transportation system. It has a designed annual coal handling capacity of 35 million tonnes and it is estimated that by the end of 2007 when the fourth unloading line is completed, its annual coal handling capacity will be increased to 45 million tonnes. As it benefits from the sound infrastructure of Tianjin Port, including the deep water route of 200,000-tonne class and the professional port services, the Shenhua Tianjin Coal Dock can accommodate one 150,000-tonne class and two 70,000-tonne class large vessels at the same time.



Port-entry line of Huangwan Railway

#### The Environmental Protection and Energy-saving System

Our Shenhua Tianjin Coal Dock constructed the ballast water recovery system to recover the fresh water in the tanks of incoming vessels. Following examination, the recovered fresh water will be used by the Company as spraying water, which will effectively minimise our water cost and fully utilise the fresh water. We are employing complete electrostatic dustremoving system in the loading and unloading tracks of our domestic terminals for the first time in China, with 24 of such electrostatic dust-removing devices installed at these operating points. The coal dust recovery rate amounts to over 99%. Based on the annual handling capacity of 35 million tonnes, an annual recovery of 5,000 tonnes of coal dust will be achieved, which will effectively minimise the pollution caused by coal dust.

## Implementation of the Information System

Our Shenhua Tianjin Coal Dock have implemented the MIS system for production management and the EAM system for corporate assets management, which provides the most practicable information technology safeguard for our production and enhances the reliability and utilisation value of the operation of our assets, thereby lowering the maintenance and repair cost.



Generation units at Phase I of Huanghua Power

#### **Huanghua Power**

Huanghua Power is located adjacent to Huanghua Port. It is an important power plant in the Hebei South Power Grid. The total planned capacity of Huanghua Power is 6,400 MW. The Phase I works comprise of two 600 MW sub-critical generating units and a 20,000 tonnes/day desalting system, which are already in operation. A further two 600 MW super critical coalfired generating units and a 10,000 tonnes/day desalting system are planned for Phase II. These have been listed by the National Development and Reform Commission ("NDRC") as a project to be selected for commencement of construction in 2007. The planned Phase III works comprises of four 1,000 MW ultra super critical coal-fired generation units.

#### Sea reclamation for the entire plant

Huanghua Power is the first power plant in China constructed on a piece of land reclaimed from the sea. The land reclaimed for the Phase I works amounts to 488,000 sq.m. On 30 November 2002, the sea reclamation works for the Huanghua Power Plant commenced. During the works, special techniques such as the building of embankments, dredging of mud and filling of dredged spaces and vacuum preloading were employed, and it took a mere 14 months to turn the 488,000 sq.m. of sea into land, with the works being completed two months ahead of schedule.

#### Combination of port and power plant

Huanghua Power obtains coal directly from the coal stacking ground at the port through coal conveyors, and sea water is obtained directly from the deep-water basin of the port area, thereby integrating the port and the power plant.

#### De-salting of sea water

A low-temperature multi-function sea water de-salting facility was constructed at the same time as Huanghua Power Plant. It has a production capacity of 20,000 tonnes/day to produce fresh water by de-salting sea water.