

Sustainability Report 2008




China Huaneng Group (hereinafter referred to as CHNG) has a corporate logo comprised of deformed letters "H" and "N".

The letters "H" and "N" are capitalized initials of "Huaneng", which mean to "contribute to the rejuvenation and well-being of the Chinese nation by providing energy and power".

The letter "H" in bold brings forth a visual effect featuring safety, reliability and trustworthiness. The letter "N" is linked to "H" with three radials. They together form a logo in the shape of lightning that symbolizes everlasting circulation and endless energy. With deep blue as the main tone, the corporate logo represents solemnity, preciseness, tranquility and harmony, as well as broadmindedness just as vast ocean embraces streams to its tide and global ambition.

The corporate logo looks like mountains, magnificent and lofty. It features a precise and awe-inspiring composition and a visual sense of simplicity and vigorousness, representing the sacred mission and modern demeanor that CHNG undertakes as a leading state-owned enterprise.



About this Report:

Time Coverage

Jan 01, 2008- Dec 31, 2008, parts of the contents are appropriately traced back to the time before 2008.

Reporting Cycle

Our sustainability report is an annual report, and this is the third one since 2006.

Main Contents

This report mainly covers safety, environmental, economic and social issues at the Group level, and related typical cases are from some subsidiaries and grassroots enterprises.

Compilation Conformance:

This report was compiled in accordance with the *Guideline on Performing Social Responsibility by Central Enterprises* released by the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council and in light of the *Guideline on Sustainability Report* (2006 Edition) of the Global Reporting Initiative (GRI).

Major changes

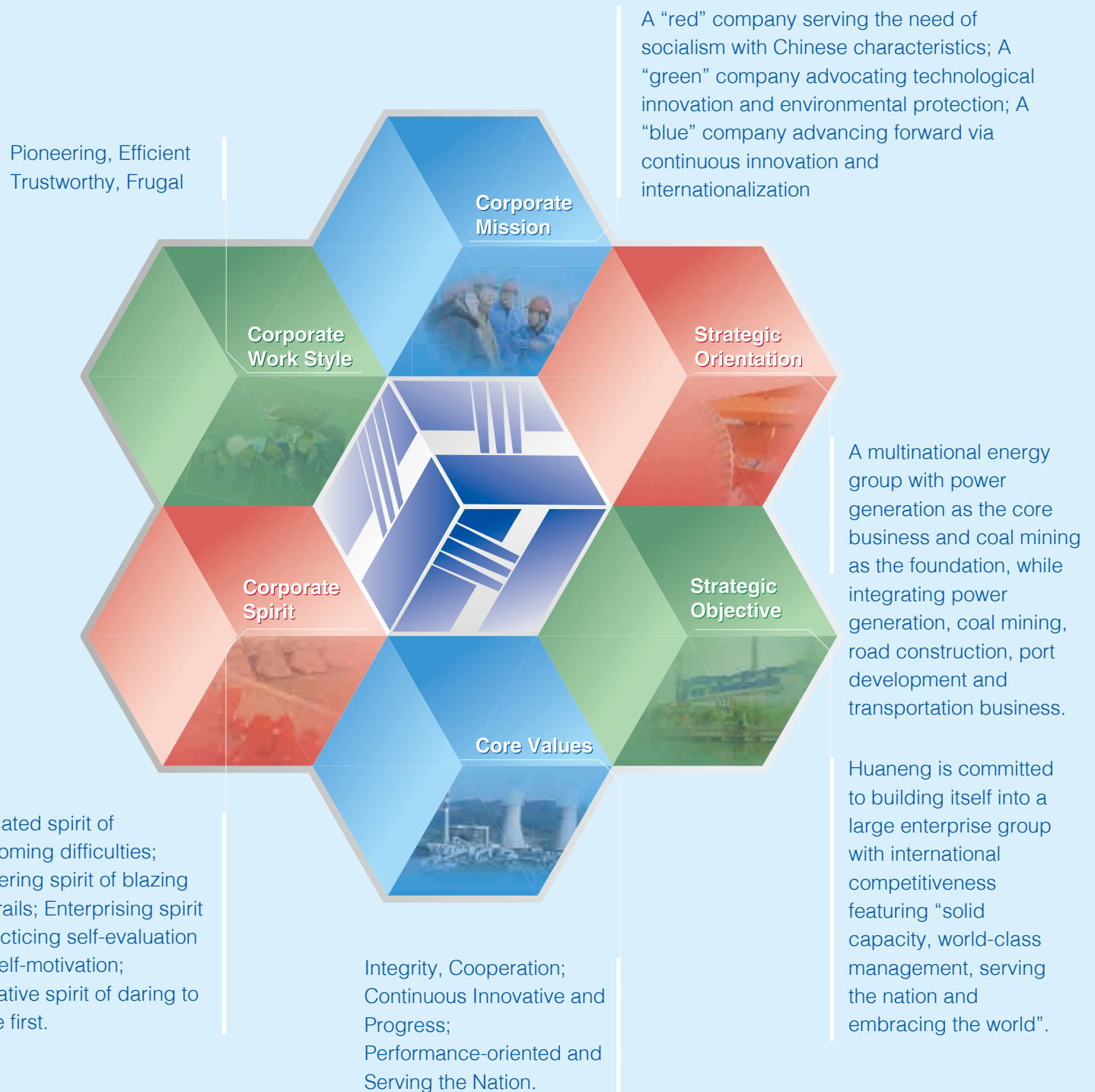
This report takes the “Scientific Outlook on Development” as its guidance, and in each part, events and typical cases are adopted to present our practice and achievements on sustainable development in 2008.

Improvements Needed

To actively explore the standards for power generation enterprises to fulfill their social responsibilities, and to improve the evaluation system.



“Three-color Corporate Culture” as Core Concept





Declaration on Sustainable Development of Huaneng

- Persist in obeying and serving national interests and development strategies, so as to set an example in promoting economic and social development in all respects.
- Persist in scientific development and technological innovation, so as to set an example in building a resource-conserving and environment-friendly society.
- Persist in pursuing operating performance in a rational way, so as to set an example in promoting harmony between enterprises and society.
- Persist in the policy of “depending on the working class to develop enterprises”, so as to set an example in putting people first and sharing benefits.
- Persist in contributing to society and benefiting the people, so as to set an example in practicing social ethics

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Address from the President



Cao Peixi, President of China Huaneng Group and Vice Secretary of the CPC Huaneng Committee

This is the third sustainability report of China Huaneng Group. Declaration on Sustainable Development of Huaneng and the objectives of our sustainable development were stated in the previous report. In the past year, taking the “Scientific Outlook on Development” as the overall guidance, we earnestly practiced our Declaration on Sustainable Development, attached great importance to China’s energy security and to the impact brought forth by fossil energy conversion on the environment. Meanwhile we calmly tackled with the catastrophic natural disasters and ever-changing economic and financial situations, performed social responsibilities as a corporate citizen, and firmly stepped forward on the path of sustainable development.

Looking back on the extraordinary year of 2008, Huaneng has overcome various difficulties and stood severe tests, which showed our excellent virtue as a key state-owned enterprise. In line with the CPC Central Committee’s directive of “guaranteeing traffic flow, guaranteeing power supply and guaranteeing people’s livelihood”, we provided strong support for disaster relief and safe power supply at all costs in the fight against the snowstorm and freezing rain disasters which hit southern China. After 5.12 Earthquake occurred in Sichuan province, we immediately took actions in accordance with the decisions and deployment from the CPC Central Committee and the State Council. Through meticulous organization and strenuous efforts, we gained sweeping victory in rescuing people,

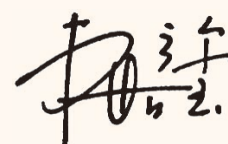
removing dangers of the dam and the earthquake lake and resuming production, etc. In order to meet the peak demand for electricity in summer and to guarantee power supply for the 2008 Beijing Olympics, we persisted in the overall situation idea and strengthened the awareness of responsibility, scrupulously fulfilled our duties and spared no efforts to provide high-quality, reliable and clean electricity for Beijing Olympics and Paralympics. Faced with the adverse impacts brought forth by the international financial crisis, we took various measures and calmly tackled with the crisis, transformed danger into opportunities and properly completed every production and operation tasks, thus laying a firm foundation for Huaneng to take the lead among China's power generation enterprises to join the ranks of the world's 500 largest companies.

The year of 2008 witnessed the 30th anniversary of China's "reform and opening up" and the 20th anniversary of the establishment of China Huaneng Group (the Group Company). The 20-year development of Huaneng has proven that safe development is the precondition for sustainable development, clean development the indispensable path, healthy development a strong support and harmonious development is an important guarantee for sustainable development. In order to realize the sustainable development of state-owned power enterprises, we must earnestly carry out economic responsibility and guarantee the preservation and increment of the value of state-owned assets; we must perform political responsibility and make sure that all policies and guidelines made by the CPC and our nation be comprehensively implemented; we must fulfill environmental responsibility and guarantee efficient and clean energy utilization; we must also carry out social responsibility so that all stakeholders concerned can develop harmoniously.

Nowadays, resources and environment have been the focus of the world and the bottleneck of socio-economic development. Chinese President Hu Jintao has pointed out in the 2007 APEC conference that "in order to face the challenges of climate changes, the Chinese government gives top priority to establishing the production and consumption patterns as required by sustainable development, optimizes energy structure, promotes industrial upgrading, develops low carbon economy, and strives to build a resource-conserving and

environment-friendly society". As a responsible enterprise, Huaneng has fully realized that because of the attributes of the power generation industry, power generation enterprises consume a lot of resources and have a major impact on the environment while they provide clean energy for the society. As a result, we constantly took the "Scientific Outlook on Development" as the guidance, in the framework of sustainable development, we strived to realize the unity of development speed, quality and benefits, and to achieve the coordination between economic development and resources, as well as the environment. We stuck firmly to the idea of ecological civilization, constantly perfected the mechanism of resource conservation and environment protection, vigorously adjusted and optimized power sources structure and made solid progress in technological innovation. Through unremitting efforts, we constantly enhanced resource utilization rate, reduced resource consumption and pollutant discharge to the minimum, so as to achieve sustainable development.

In 2009, with the international financial crisis still deepening and spreading, together with the complex and ever-changing economic situation, Huaneng is faced with unprecedented difficulties. However, the more difficult it is, the more confident we should be of our development. Confidence contains strong momentum for development, confidence is a powerful weapon with which we can fight against difficulties, and confidence is the spiritual pillar that supports success. In new times and at new stages, we will carry out thorough study and practice of the "Scientific Outlook on Development", which surely will further promote sustainable development at a higher stage and a higher level. Taking this as an opportunity, we will overcome difficulties, turn losses into gains, and make adjustments and optimizations. We will develop in a scientific way, forge new strengths and transcend ourselves. What's more, we will be a responsible enterprise forever, gain profits which are full of responsibilities, and make new contributions toward promoting the comprehensive, coordinated and sustainable development of the economy, society and the environment.



May 2009



Scientific Development of Huaneng in 2008



Fighting Snowstorm and Freezing Rain Disaster

In the light of natural disasters, we did everything possible to guarantee power supply and used our best to guarantee coal supply. Through our efforts, no outage occurred due to lack of coal, and local demands for power supply were met.

Earthquake Relief

After the massive Wenchuan Earthquake occurred on May 12, 2008, Huaneng immediately took actions. All employees united together and gained sweeping victory in rescuing people, removing dangers of the dam and the earthquake-affected site.

Guaranteeing Power Supply for the 2008 Beijing Olympics

During the 29th Beijing Olympics, we successfully fulfilled the task of guaranteeing power supply for the Olympics.

85.86 GW

The total installed capacity of our Company reached 85.86 GW, up 14.28% over the previous year.

151.3 Billion Yuan

The annual sales revenues reached RMB 151.3 billion Yuan, up 30.0% over the previous year.

Overseas Acquisition

We acquired 100% shares of Tuas Power Co., Ltd. from Singapore-based Temasek Holdings, which accounted for over 25% of Singapore's power market shares.

2.4 Million Tons

The installed capacity of generating units equipped with desulfurizing devices reached 60,034 GW, as a result, 2.4 million tons of SO₂ emission could be reduced every year.

129%

We have accomplished 129% of the task specified in the *Responsibility Agreement on Closing Down Small Coal-fired Power Generating Units* during the 11th Five-Year Plan.

5.4 Million Tons

Our coal consumption was below national average consumption by 15.41g/kWh through which about 5.4 million tons of standard coal have been saved all year round.

Gold Medal

Huaneng Yuhuan Power Plant Phase I Project was awarded Gold Prize for National Excellent Project – China's top award for quality projects in the area of engineering construction.

Capture of Carbon Dioxide

The first CO₂ capturing project in coal-fired power plants in China was constructed and put into operation in Huaneng Beijing Cogeneration Power Plant.

Cultural and Ethical Progress

4 companies of Huaneng were named "National Model Enterprise of Spiritual Civilization Construction", and 14 were named "National Advanced Enterprise in the Construction of Spiritual Civilization" by the Central Committee for the Construction of Spiritual Civilization.



Members of the Management Team



Cao Peixi, President of China Huaneng Group and Vice Secretary of the CPC Huaneng Committee (third from left in the front row)

Huang Yongda, Secretary of the CPC Huaneng Committee and Vice President (third from right in the front row)

Zhang Tingke, Member of the CPC Huaneng Committee and Vice President (second from left in the front row)

Ju Zhanghua, Member of the CPC Huaneng Committee and Vice President (second from right in the front row)

Na Xizhi, Member of the CPC Huaneng Committee and Vice President (first from left in the front row)

Wu Ruosi, Member of the CPC Huaneng Committee and Vice President (first from right in the front row)

Huang Long, Member of the CPC Huaneng Committee and Vice President (third from left in the back row)

Guo Junming, Member of the CPC Huaneng Committee and Chief Accountant (third from right in the back row)

Ma Jing, Member of the CPC Huaneng Committee and Discipline Inspection Group Leader (second from left in the back row)

Feng Dawei, Chief Economist (second from right in the back row)

Hu Jianmin, Chief Engineer (first from left in the back row)

Kou Wei, Chief Engineer (first from right in the back row)

Framework of the Report



1

Corporate Governance

Events

- On April 22, 2008, Wang Gang, member of the Politburo of the CPC Central Committee, Vice-President of the National Committee of the Chinese People's Political Consultative Conference (CPPCC), went to Huaneng Beijing Cogeneration Power Plant for Green Olympics special investigation, accompanied by Liu Qi, member of the Politburo of the CPC Central Committee, Secretary of the CPC Beijing Municipal Committee, BOCOG President.
- On May 6, 2008, we released *Guidance on Performing Social Responsibilities*. We were awarded "Gold Bee – Leading Enterprise" at the 3rd International Forum of Corporate Social Responsibility.
- On June 16, 2008, the Company made senior management adjustments. Cao Peixi stepped in as President of China Huaneng Group and Vice Secretary of the CPC (Huaneng) Committee, Huang Yongda as Secretary of the CPC (Huaneng) Committee and Vice-President.
- On July 7, 2008, Standing member of the Politburo of the CPC Central Committee, Chairman of the Standing Committee of the National People's Congress(NPC), Wu Bangguo visited Huaneng Yimin Coal and Power Co. Ltd.
- On July 18, 2008, we held the second session of the Executive Committee of the Management Committee in 2008 and the second plenary session of the Management Committee for the purpose of strengthening risk management.
- On November 24, 2008, Huaneng passed the *Proposal for Carrying forward Management Revolution and Perfecting Company Management System*, which made clear the basic positioning and main responsibilities and rights of all levels, that is, group company— regional companies/industrial companies—grassroots enterprises.



- Company Profile
- Organizational Structure
- Management System
- Corporate Strategies
- Opportunities and Risks
- Supervision and Anti-corruption
- Building Corporate Culture

Company Profile

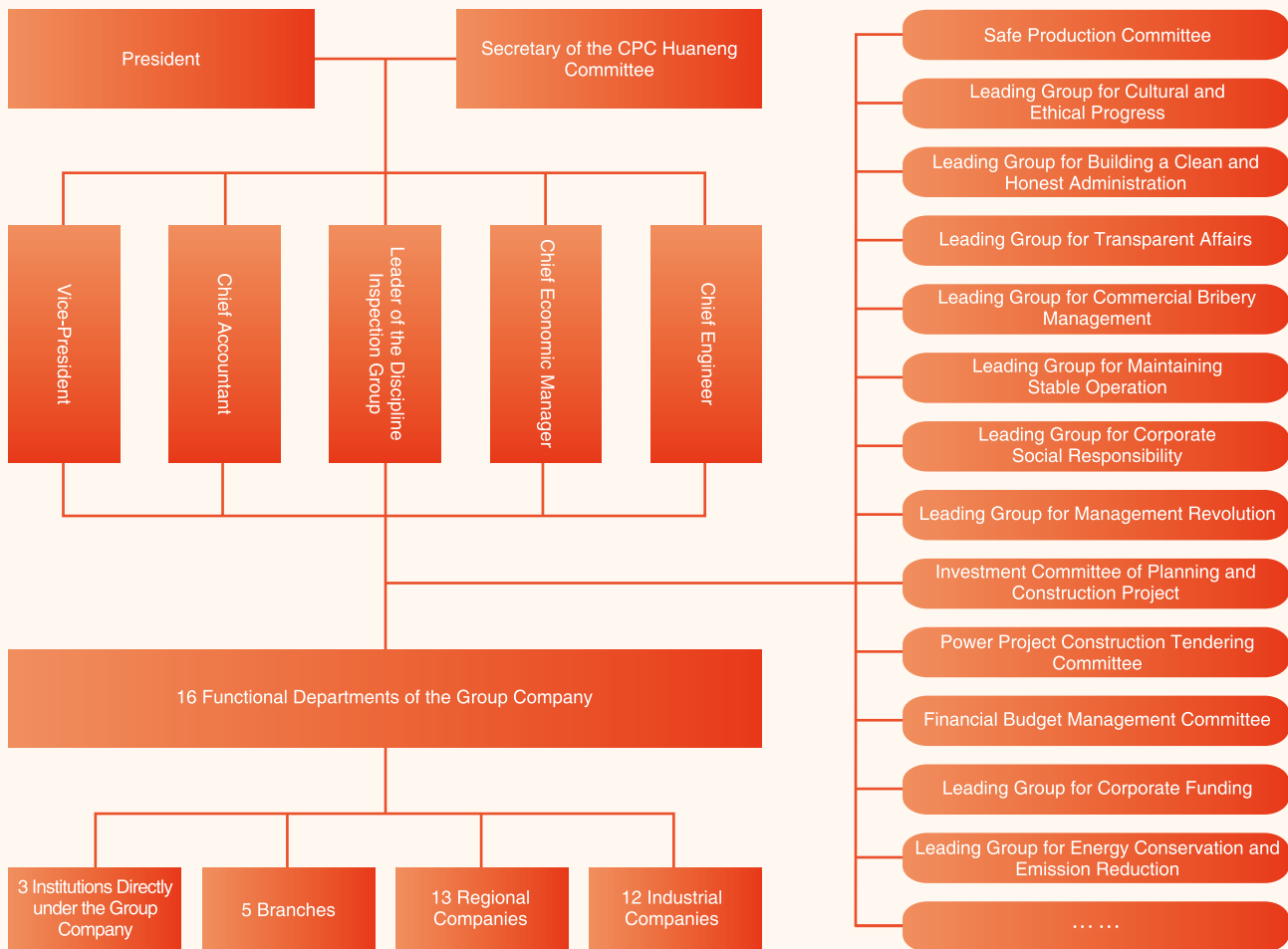
China Huaneng Group is a key state-owned enterprise established with the approval of the State Council and is an entity authorized and invested by the state, and a pilot of state-holding corporations.

The registered capital of the Company is RMB20 billion. The Company is engaged in the following business: development, investment, construction, operation and management of power sources; production and sale of power and heating; investment, construction, production, operation and management of businesses and products related

to transportation, renewable energy, and environmental protection; foreign trade and international cooperation, overseas project contracting, and overseas labor cooperation with the approval of the state; domestic and foreign investment and financing in accordance with state regulations and with the approval of relevant departments; other businesses approved or permitted by the state.

By the end of 2008, Huaneng had 123 power plants distributed in 26 provinces, municipalities and autonomous regions in China and abroad with total installed capacity of 85.86GW.

Organizational Structure

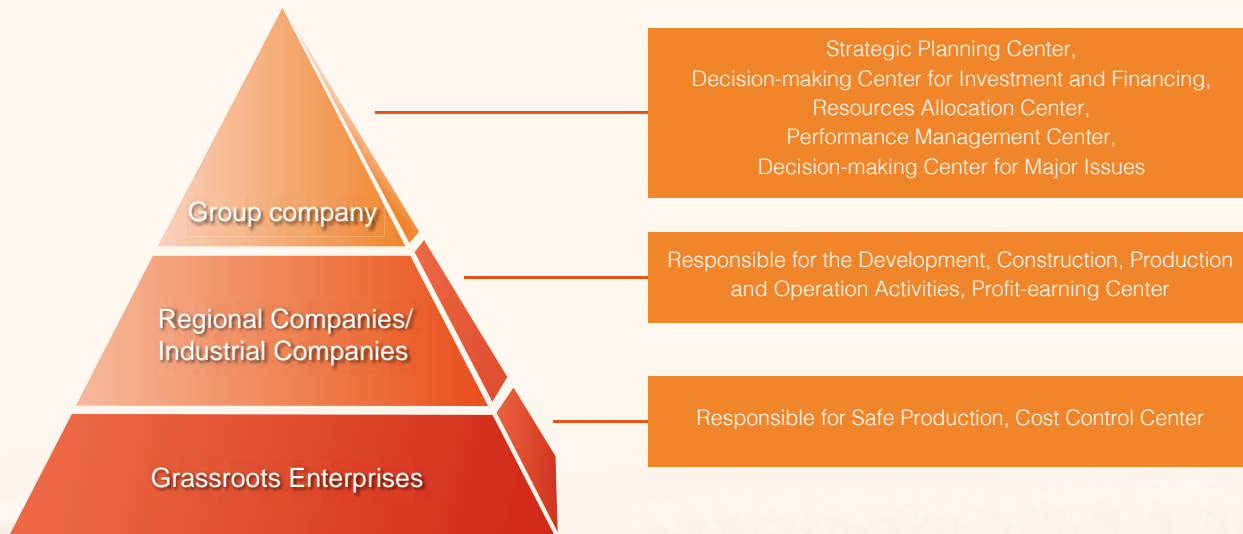


Management System

Establishing Three-level Management System

In accordance with the requirements of modern corporate system, Huaneng constantly standardizes and improves its corporate governance and management mode, and has formed a management system with assets as the link, parent company-subsidiary as the main structure and at the same time integrating the head office and the branch offices. The Company has established a three-level management system, that is, "group company—regional companies/industrial companies—grassroots enterprises".

The Group Company serves as the center for strategic planning, investment and financing strategy, resources allocation, performance management and major problems settlement. Regional companies/industrial companies are principally responsible for the development, construction, production and operation activities, and are profit-earning centers. The grassroots enterprises are principally responsible for safe production and are cost control centers.



Perfecting Social Responsibility Management System

In May 2008, Huaneng released *Guideline on Performing Social Responsibility*, clarifying the significance, guiding theory, overall objectives and main contents of implementing social responsibility.

The Company has set up the leading group for corporate social responsibility, which makes deployments on how to implement social responsibility. This leading group is mainly responsible for constructing social responsibility management system, examining and approving plans and main regulations of implementing social responsibility, organizing and carrying out important social responsibility activities. It is also responsible for examining and approving annual sustainable development reports and putting reports into distribution, etc.

Regional companies/industrial companies have also established the leading groups of social responsibility, so as to specify departments for specialized management, and to establish and improve routine management system. They are responsible for promoting the decisions and deployments of social responsibility made by the Group company, organizing their own social responsibility practices and conducting relevant trainings. Besides, they are responsible for summarizing and submitting issues and information related to the construction of social responsibility, making exchanges and cooperating with the stakeholders.

Corporate Strategies

Strategic Objectives

To ensure that by the end of the 11th Five-Year Plan, all subsidiaries meet the standard of energy-conserving and environment-friendly enterprises, the indices of all energies and resources consumption and the emission indices reach the top level in China and advanced level abroad. On the basis of structure optimization, energy conserving and emission reduction, and benefit increasing, to ensure that the controllable installed capacity of Huaneng exceeds 100 GW, coal productivity exceeds 60 million tons/year, and sales revenue, economic benefit and assets size see further and substantial increases. And also to ensure that the Company becomes one of the first Chinese power generation enterprises to join the ranks of the world's 500 largest companies.



◆ Wu Bangguo, Chairman of the NPC Standing Committee, visited Huaneng Yimin Coal and Power Co. Ltd, accompanied by President, Mr. Cao Peixi

Development Strategies

● **Integration Strategy:** Persist in the industrial orientation of “power generation at the core, coal mining as the foundation, while integrating power generation, coal mining, road construction, port development and transportation”, and promote the harmonious development of the core business (electricity) and supporting business.

● **Energy-Conserving and Environmental Protection Strategy:** Continually reduce the discharge of pollutants, improve the efficiency of resources utilization, develop recycling economy and build an energy-conserving and environment-friendly enterprise.

● **Strong Management Strategy:** Give full play to the fundamental role of management, form a benign mechanism of continuously improving and strengthening management, so as to constantly enhance its capacity in decision-making, implementation and control.

● **Technological Innovation Strategy:** Constantly strengthen the “dominant position” of enterprises in independent innovation, further improve technological innovation system, and enhance the independent innovation capacity.

● **“Go global” Strategy:** Enhance the capacity in utilizing both Chinese and foreign resources and exploring the two markets, and build Huaneng into a multinational company with China as its main base.

● **Talent-intensive Strategy:** Stick to the “Scientific Outlook on Development” as the overall guidance in human resource work, continuously optimize human resource structure, and strengthen the building of high-caliber workforce so as to provide human resource support for corporate development.

● **Cultural Cohesion Strategy:** Further improve the core value system, perfect the standard of behavior, and optimize the image identification system so as to gradually improve the corporate cultural system with Huaneng characteristics mainly featuring “three-color corporate culture”.

2008年

18日 北京

建设具有国际竞争力的大企业集团



◆ Investigation of Mr. Huang Yongda, Secretary of the CPC Huaneng Committee, in North United Power Co., Ltd.

Opportunities and Risks

Major Opportunities

Firstly, those measures adopted by the Chinese government to maintain economic growth, boost domestic demand, adjust economic structure and promote development have brought new opportunities to us; secondly, the continuous deepening of reform and opening-up, and increasing international exchanges and cooperation in energy industry have provided opportunities for us to carry out the “go global” strategy; thirdly, the Chinese government implements new energy policies, intensifies efforts in structural readjustment, and actively promotes the policy of “develop large generating units and close down small ones”, thus providing new opportunities for large, high-efficiency and environment-friendly units to occupy the market share; fourthly, constant innovation of power technology consolidates the technical foundation for continuously accelerating equipment modification, raising equipment level and enhancing operating efficiency.

Major Risks

Firstly, complicated and changeable international economic situation increases the difficulty of economic operation, which brings new challenges to corporate production and operation; secondly, coal price rises significantly, and the operating cost of coal-fired plants have in turn sharply increased, which poses unprecedented pressure onto operation; thirdly, as the Company is getting larger and larger, financial strain becomes more and more obvious, which brings challenge to effective capital operation; fourthly, resources utilization needs to be more efficient and there is increasing pressure on environmental protection, which makes it a tough task to comprehensively build an energy-conserving and environment-friendly enterprise.

Corresponding Measures

Huaneng mainly took the following corresponding measures: 1) comprehensively promoted the construction of internal control system which focused on risk prevention, enhanced the capacity of developing scientifically, tackling with competition and fending off risks; 2) promoted management diagnoses, improved and perfected management process, actively conducted benchmarking management, found and corrected errors and drawbacks continuously; 3) perfected technological management system, sped up independent innovation, maintained technical advantages, and built core competitiveness; 4) promoted the “go global” strategy, fully utilized the Chinese and international markets and resources to expand development.



◆ Infrastructure Construction



◆ Equipment Installation

Supervision and Anti-corruption

Perfect the Punishment and Prevention System

Huaneng makes solid efforts in building a punishment and prevention system. In 2008, the Company formulated regulations including *Implementation Measures of China Huaneng Group on the Establishment and Improvement of Corruption Punishment and Prevention System 2008-2012* and *Provisional Regulations of China Huaneng Group on Decision-Making of Major Issues*, providing regulation guarantee for building the punishment and prevention system.

Group Decision-making

Integrating internal control construction and risk management, Huaneng supervised and inspected the formulation and execution of group decision-making regulations, and promoted corporate scientific management and democratic decision-making. Regarding decision making on major issues, leading groups on each level made thorough investigation and demonstration before holding meetings, democratically discussed and made decisions on these issues during the meeting, and implemented the decisions after the meeting.

Strengthen Supervision and Audit

Huaneng actively promotes performance supervision, strengthens process supervision on key links and important parts, and incorporates anti-corruption into safe production, operation management, energy conservation and environmental protection, engineering construction and purchase of materials and equipments. The Company conducts internal audit and standardizes audit supervision so as to ensure the quality of audit. In 2008, we carried out and completed 1,032 audit items, and cut project cost by RMB170 million Yuan through audits on infrastructure construction.



◆ Speech contest on anti-corruption



◆ Investigation of Company leaders

Building Corporate Culture

Huaneng incorporates corporate culture building into the development strategy, identifies the bond between corporate culture building and all kinds of work, and optimizes the allocation of cultural resources. The Company conducts researches on corporate culture, actively carries out activities to promote it, which further strengthened employees' awareness

and recognition of the "three-color corporate culture". Faced with the massive 5-12 Earthquake of Wenchuan, employees of Huaneng demonstrated their strong sense of responsibility for the public good, strong work ethic, great tenacity and endurance, as well as their teamwork spirit, all of which were a manifestation of the "three-color corporate culture".

2

Safety Responsibility— Putting People First and Safe Development

Events

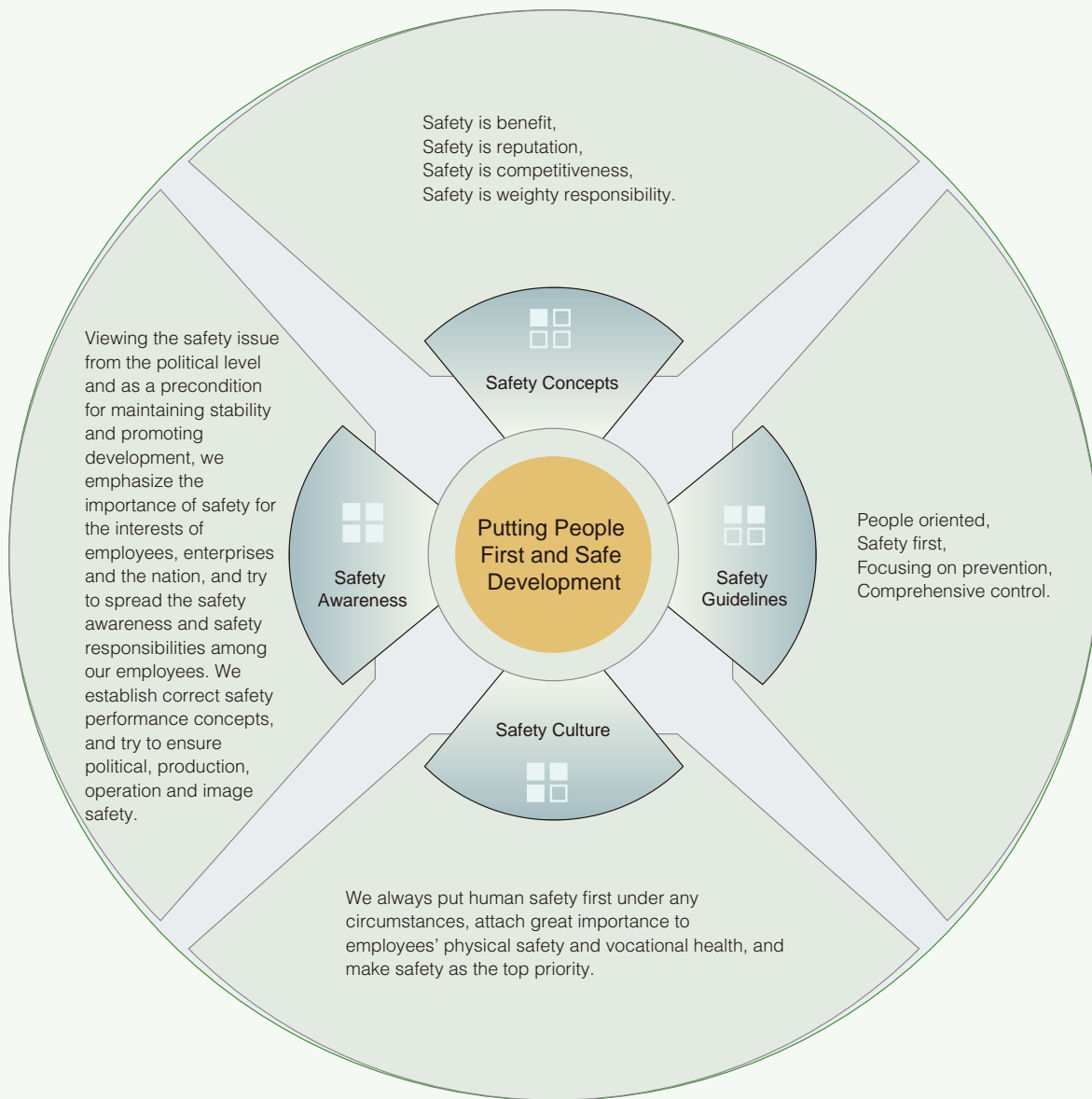
- On January 2, the first work day in 2008, Huaneng held the first enlarged meeting of the Safe Production Committee.
- On January 30, 2008, Huaneng activated emergency response plans for snowstorm and freezing rain disaster and for serious lack of coal supply.
- On May 12, 2008, after the massive earthquake of Wenchuan happened, Huaneng immediately activated the emergency response plan for severe geological disasters.
- On May 19, 2008, Huaneng decided to conduct a series of activities in the whole Company to strengthen team building.
- On June 1, 2008, Huaneng conducted the “Safe Production Month” activity, which focused on “controlling hidden dangers and preventing accidents”.
- On November 13, 2008, Huaneng Beijing Cogeneration Power Plant, Huaneng Yangliuqing Power Plant and Huaneng Shangdu Power Plant received the honor of “Advanced Enterprise in Ensuring Power Supply for the 2008 Beijing Olympics”, which was awarded by the State Electricity Regulatory Commission.



- Safety Concepts
- Safety Objectives
- Safety Measures
- Safety Performance
- Typical Cases

Safety Concepts

Safe development is the precondition for sustainable development. In order to achieve safe development, we must stick to the scientific concept of "putting people first", regard safety as "benefit, reputation and competitiveness", and practically implement the safe production responsibility system. We must also improve safety management regulations, strengthen emergency management mechanism, and perfect safety management system, so as to enhance safety level and become the safest company.



Safety Objectives

To ensure human and equipment safety, avoid death accidents, mass injury, major or serious equipment accidents, serious fire accidents, ultra traffic liability accidents, ultra environmental pollution accidents, dam collapses, plant flooding accidents, gas explosion and water inrush accidents.

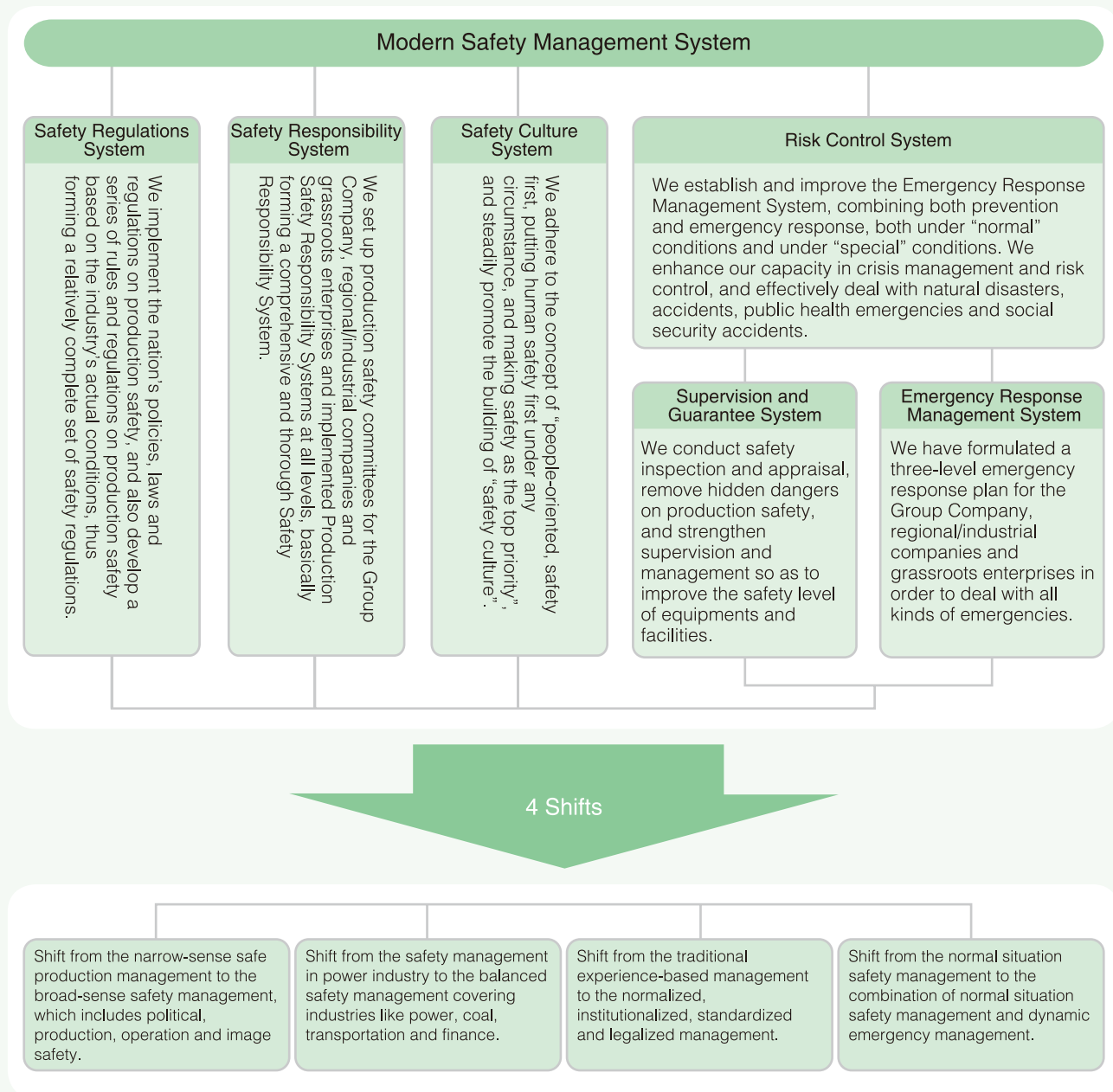
Safety Measures

Strengthen Safety management

- Promote Broad-sense Safety Management

In 2008, Huaneng proposed and actively promoted broad-sense safety management, including production safety, operation safety, political safety and image safety, quantified the assessment criteria for those "4 safeties", and established corresponding performance assessment system.

- Perfect Modern Safety Management System



In 2008, Huaneng conducted pilot work of modern safe production management system in 7 enterprises including Huaneng Dalate Power Plant, Huaneng Manwan Hydropower Station, Huaneng Dezhou Power Plant, Huaneng Shidongkou No.2 Power Plant, to standardize safe production management.

● Perfect Safety Management Regulations

In 2008, on the basis of further perfecting existing safe production rules and regulations, Huaneng promoted the institutionalization and standardization of safety management, formulated 14 rules and regulations, including *Accountability and Punishment Measures for Safe production Accidents*, and newly compiled 12 management rules and regulations on safe production of coal mines.

● Strengthen Emergency Response Management Mechanism

In 2008, Huaneng further strengthened emergency response management, perfected the system, supplemented and revised 4 emergency response plans, and established management mechanism to ensure safe power supply for the 2008 Beijing Olympic Games, which featured "safety, stability and environment-friendly". After the occurrence of heavy snowstorm and freezing rain disasters and the massive 5·12 Earthquake in Wenchuan, the Company immediately activated the emergency response plans, and the safety emergency response mechanism was tested in the fight against disasters. Through systematically drilling the emergency response plan to ensure safe power supply for the 2008 Beijing Olympics, Huaneng enhanced its capacity in responding to emergencies.

● Implement Safety Responsibility

In 2008, Huaneng signed the *Production Safety Responsibility Agreement* with each regional/industrial company, so as to implement safe production responsibility system. Regional/industrial companies also signed *Production Safety Responsibility Agreement* with their subsidiary grassroots enterprises. In this way safety responsibility was designated level by level to each department, workshop, team and post.



◆ Meeting of the safe production committee

Enhance the Safety Level of Equipments and Facilities

● Strengthen Management of Equipment Safety

In 2008, under the unfavorable situation that equipments are severely worn out due to the downgrading of coal quality, Huaneng regularly conducted assessments and analysis on the safety condition of the equipments and facilities, examining and repairing equipments upon shutdown. The Company also attached great importance to the technical renovation of equipments and to the quality management and process control of equipment overhaul. Huaneng reasonably arranged technical renovation and overhaul items, making all defects well repaired, so as to enhance the reliability of the equipments and facilities. In 2008, no unplanned

outage occurred in 21 power plants throughout the whole year, including Huaneng Chaohu, Huaneng Dalian, Huaneng Weihai, Huaneng Lengzhuguan, Huaneng Xucun and Huaneng Nanshan Power Plants.

At the 2008 Presentation Conference on Power Energy Reliability Indices held jointly by the State Electricity Regulatory Commission and China Electricity Council, 5 units of Huaneng won the honor of 2007 National Gold Medal Unit for Reliability in Coal-fired Power Generation Industry, accounting for 25% of the total units which were awarded such honor throughout China.

No.2 unit of Huaneng Qinbei Power Plant and No.1 unit of Huaneng Hanfeng Power Plant won the honor of 2007 National Gold Medal 600 MW-level Unit for Reliability in Coal-fired Power Generation Industry; No.4 unit of Huaneng Dalian Power Plant, No.1 unit of Huaneng Taicang Power Plant and No.3 unit of Huaneng Baotou No.3 Cogeneration Power Plant won the honor of 2007 National Gold Medal 300 MW-level Unit for Reliability in Coal-fired Power Generation Industry.



◆ Company leaders showing sympathy and solicitude

● Deepen the Inspection and Treatment of Hidden Dangers

Huaneng thoroughly carries out activities including "Hidden Danger Treatment Year", "Safe Production Month", "Special Actions against Breach of Regulations" and seasonal overall safety inspection, normalized the contents of safety inspection, and eliminated equipment defects and management loopholes. In accordance with the national requirements on "Hidden Danger Treatment Year" and "100-day Special Actions for Safe Production Supervision and Inspection", all companies and enterprises under China Huaneng Group have found 15,747 hidden dangers of safety, 15,292 of which have been removed, accounting for 97.11%. Among all these hidden dangers 316 were major ones, and 280 of these have been removed, accounting for 88.61%. Treatment fund of RMB 167 million Yuan was allotted. Accident risks were effectively reduced through all these efforts.

Strengthen the Foundation of Safety

Huaneng thoroughly carried out safety risk analysis, pre-control of dangerous points and safety evaluation. In accordance with the unified deployment from the group company, all regional/ industrial companies firmly promoted the construction of safe companies, starting from "grassroots, foundation and basic skills". In accordance with the requirement of "ensuring zero accident with zero breach of regulations", grassroots power plants and coal mine enterprises made vigorous efforts in the work against breach of regulations, rigorously tracing the accountability of accidents.

● Strengthen the Safety Management of Infrastructure Construction

Huaneng earnestly implemented the responsibility of project constructors for safety management, fully utilized the organizing, coordinating and supervising functions of project owners, and organized all parties participating in the construction to constantly carry out "Special Actions against Breach of Regulations", so as to completely prevent safety accidents in infrastructure construction projects.



◆ On-site meeting on infrastructure construction

● Strengthen Safe Teams Building

In 2008, Huaneng published *Implementation Plan on Strengthening Team Building of China Huaneng Group*, and carried out team-building activities in the whole Company. This document also standardized safety management of all details, including teams' safety disclosure before shift, safety confirmation before work, mutual safety assurance during work, supervision of special and dangerous operations by assigned persons and emergency response to incidents. The aim is to achieve "3 no harms" (no harm to oneself, no harm to others, and no harm from others).

● Strengthen Safety Management of Coal Mines

In 2008, Huaneng incorporated measures which are effective in the power industry, such as "two tickets system" and safety evaluation methods into the production safety management of coal mining enterprises, and carried out pilot work on the introduction of those methods.



◆ Safety inspection of coal mine

Strengthen Safety Education and Training

● Enhance Employees' Safety Awareness

Huaneng actively adopted various measures to carry out safety education and trainings, so as to enhance the employees' recognition of the vital importance of safe production and to strengthen their awareness of safe production. These safety education and trainings also standardized employees' work, including safety precaution, safe operation as well as analysis and pre-control of dangers on the overhaul site, and helped improve their safety skills. Huaneng actively promoted the construction of nuclear safety culture in grassroots nuclear power enterprises, earnestly implemented the guideline of "safety first, quality first", which remarkably enhanced the nuclear safety awareness of employees at all levels.

● Extensive Experience Exchanges

In 2008, with the aim to comprehensively enhance safety management level, Huaneng organized industrial companies to learn from each other, strengthened experience exchanges of safety management between hydropower stations and coal-fired power plants, and between power and coal industries, so as to let them complement and learn from each other, and to promote the enhancement and balanced development of safety management level among enterprises and industries.



◆ On-site Communication

Safety Performance

No serious equipment accidents, no serious fire accidents, no ultra traffic liability accidents or major environmental pollution accidents occurred.

Three death accidents (3 deaths) of Huaneng employees during production occurred.

Four common equipment accidents in power generation, 114 Class A equipment failures, equipment failure rate of 0.35 time/set per year.

Overview of Corporate Production Safety (2005 — 2008)

Item	Unit	2005	2006	2007	2008
Unplanned Outage	times	262	206	142	160
Major Equipment Accident	times	0	0	0	0
Common Equipment Accident	times	7	3	5	4
Injury and Death Accident	times	3	1	3	3

Warning and Reflection

In 2008, a lot of generating units of Huaneng were newly put into operation, many projects were under construction, and coal quality downgraded. All these factors increased the operating risks of equipments and in turn made safe production management more difficult. Compared to the same period of the previous year, unplanned outage had increased by 18 cases, Class A equipment failure increased by 4 cases, and injury and death accidents were not avoided.

The core of the "Scientific Outlook on Development" is putting people first, which in specific terms of safe production, is to ensure the physical safety of every employee of Huaneng and everyone participating in the construction and development of Huaneng. Loss of life made us deeply grieved. We shall, in the spirit of being highly responsible for our country, corporation and employees, systematically search for loopholes in safety management, prevent breach of rules and regulations, and further enhance employees' safety awareness and safety skills. We shall also be constantly on guard, draw experience from the accidents, and substantially enhance the intrinsically safety level.

Unyielding spirit in the Face of Disasters

Fighting against Snowstorm and Freezing Rain

In the middle of January 2008, a severe snowstorm and freezing rain disaster suddenly struck southern provinces in China, which caused terrible traffic problems, emergency in coal supply, and sharp increase of power consumption, bringing serious threat to safe and stable power generation and supply. In the face of the disaster, Huaneng, as highly responsible for our country, society and people, immediately activated the contingency plan, did everything possible to guarantee coal supply, and ensured safe and stable power generation. The corporation actively fulfilled its social responsibility, devoted itself to fighting against the natural disaster and ensuring power supply, which interpreted the "three-color corporate culture".

During this period, no outage occurred in any coal-fired power plant of Huaneng due to lack of coal, providing reliable support for local grids. In spite of an installed capacity accounting for only 6.5% of coal-fired units in Hunan province, Huaneng Yueyang Power Plant supported 25% of the power consumption in that province and was praised by Hunan provincial government as the "first-class power plant that withstood difficulties and generated power in critical moment". Huaneng Jinggangshan Power Plant bravely shouldered the heavy task of frequency control for the whole grid, and ensured the safe and reliable power supply of the local grid, even when only one output line could work and it was actually operating like an isolated island. Mr. Hao Fapeng, deputy manager of Huaneng Qinbei Power Plant, was over-exhausted because of expediting coal transportation day and night, and died to our great sorrow on his post.



Typical Cases

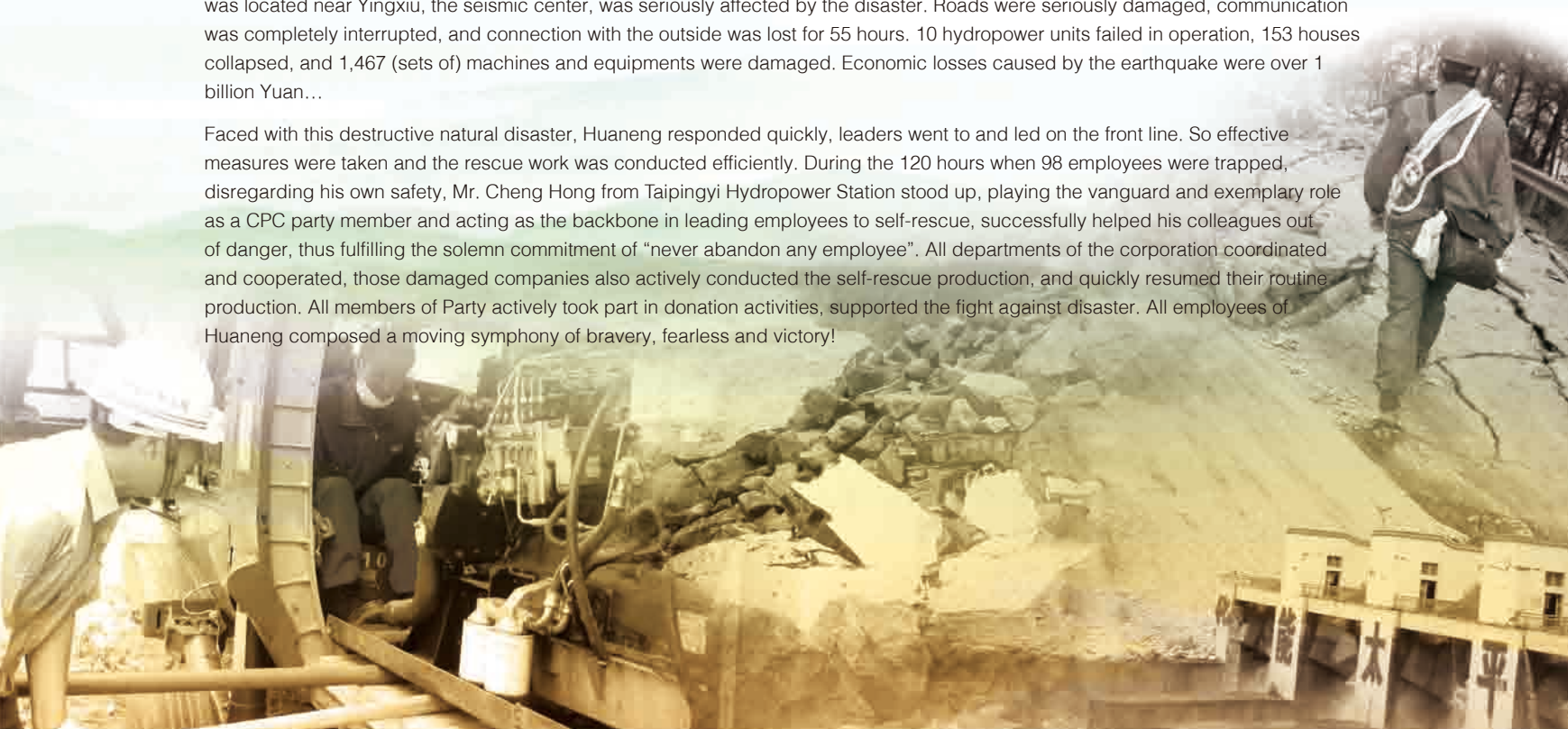




Fighting Against Earthquake and Providing Disaster Relief

In the occurrence of the 5·12 Wenchuan earthquake, Taipingyi Hydropower Station of Huaneng Sichuan Hydropower Co. Ltd, which was located near Yingxiu, the seismic center, was seriously affected by the disaster. Roads were seriously damaged, communication was completely interrupted, and connection with the outside was lost for 55 hours. 10 hydropower units failed in operation, 153 houses collapsed, and 1,467 (sets of) machines and equipments were damaged. Economic losses caused by the earthquake were over 1 billion Yuan...

Faced with this destructive natural disaster, Huaneng responded quickly, leaders went to and led on the front line. So effective measures were taken and the rescue work was conducted efficiently. During the 120 hours when 98 employees were trapped, disregarding his own safety, Mr. Cheng Hong from Taipingyi Hydropower Station stood up, playing the vanguard and exemplary role as a CPC party member and acting as the backbone in leading employees to self-rescue, successfully helped his colleagues out of danger, thus fulfilling the solemn commitment of "never abandon any employee". All departments of the corporation coordinated and cooperated, those damaged companies also actively conducted the self-rescue production, and quickly resumed their routine production. All members of Party actively took part in donation activities, supported the fight against disaster. All employees of Huaneng composed a moving symphony of bravery, fearless and victory!



3

Environmental Responsibility– Energy Conservation and Emission Reduction, Clean Development

Events

- On January 8, 2008, the ultra-supercritical coal-fired power generation technology owned by Huaneng Yuhuan Power Plant won the First Prize of National Award for Science and Technology Progress
- On June 30, 2008, development of 863 program of the 11th Five-Year Plan--key technologies of High Temperature High Dust Denitration system was completed.
- On July 16, 2008, Huaneng Beijing Cogeneration Power Plant completed a demonstration project of post-combustion capture of CO₂ from flue gas, the first among coal-fired power plants in China.
- On August 29, 2008, the in-service units' desulfurization renovation of Huaneng Fuzhou Power Plant was completed, which created a new record of completion period for similar domestic projects.
- On December 2, 2008, Huaneng signed an agreement with Shanghai Electric (Group) to build the first domestic research center for emission reduction of greenhouse gases from coal-fired power generation.
- On December 6, 2008, the biggest solar photovoltaic demonstration project in China invested by Huaneng Lancang River Hydropower Co., Ltd was commenced.



- Concept of Energy Conservation and Environmental Protection
- Objective of Energy Conservation and Environmental Protection
- Measures of Energy Conservation and Environmental Protection
- Performance of Energy Conservation and Environmental Protection
- Typical Cases

Concept of Energy Conservation and Environmental Protection

Clean development is the indispensable way to sustainable development. To develop cleanly, we should stick to the industrial policy of energy conservation and emission reduction, optimizing the power sources structure, developing high-efficiency and clean energies, promoting scientific and technological innovations, improving the efficiency of resource utilization, transforming development mode and creating energy-conserving and environment-friendly corporations.

Objective of Energy Conservation and Environmental Protection

To achieve the annual objective in *Responsibility Document of Energy conservation Objective, Responsibility Document of Reduction Objective of Total SO₂ Amount, and Responsibility Document of Shutdown of Small Coal-fired Power Units* of the 11th Five-Year Plan signed with the National Development and Reform Commission and the Ministry of Environmental Protection.

7 or 8 energy-conserving and environment-friendly coal-fired power plants should be established, so as to achieve the gradational objective of constructing 40% coal-fired power plants of Huaneng into energy conservation and environment friendly coal-fired power plants, and to make all indices of energy and resource consumption and emission indices of the Company reach the leading level in China and advanced level in the world.

Measures of Energy Conservation and Environmental Protection

Strengthen Energy Conservation and Environmental Protection Management

● Strengthen Organization and Organizational Leadership

Huaneng establishes a three-level energy conservation and emission reduction management system of group company-regional/industrial companies-grassroot enterprises, sets up a leading group of energy conservation and emission reduction with the president as the group leader for unified deployment of energy conservation and emission reduction work, and for coordination of major issues. Main leaders of all organizations under Huaneng are the first principals of energy conservation and emission reduction of their organizations, responsible for organizing events and meeting the requirements of energy conservation and emission reduction.

● Strengthen Supervision Management

Strictly execute "veto system". For those subsidiary companies that fail to complete annual objectives and meet the requirements of energy conservation and environmental protection, Huaneng will cancel their gross salary increase of that year, deprive them of their qualification for applying for "four-good management team" and of the title that they were awarded, and rescind the honorary titles that they had been awarded. Meanwhile, the responsibility of main leaders will be ascertained.

Strengthen the process control of "Three Synchronizations". Huaneng strictly supervise the implementation of "Three Synchronizations", promptly notifies the result of supervision, urges for the rectification of issues, so as to ensure all new projects meet the requirements of national environmental protection. Strengthen the supervision of desulfurization renovation for power generating units in service. Huaneng strengthens the track management of SO₂ emission reduction, ensures all desulfurization processes of units in service are promptly started and put into service as scheduled.

● Normalize Indices System

In 2008, Huaneng developed *Acceptance Inspection Measures of Energy Conservation and Environment Friendly Coal-Fired Power Plants (2008)*, revised *Acceptance Management Measures of Conformity and Commissioning of Infrastructure Projects and Management Measures of Energy Conservation and Emission Reduction Statistics*, realizing measurement, statistics and analysis unit by unit, further normalizing our acceptance inspection standard and indices system.

● Energy Consumption Benchmarking

its at all levels, encouraging the advanced and spurring the backward. Taking the domestic and foreign advanced units of the same type as benchmark, to find the gap, develop measures, promote enterprises to continuously reduce the coal consumption rate of power supply, the service power rate of the plant and other indices. By the end of 2008, 40% coal-fired power plants of Huaneng had met the standard of energy-conserving and environment-friendly power plants.



◆ Desulfurization system of Huaneng Dezhou power plant Phase 3 Project put into operation

Intensify the Efforts in Energy Conservation Renovation

Huaneng actively adopts some new technologies and processes including the motor frequency conversion, the little oil ignition and the plasma ignition of boiler on energy conservation renovation of units in service. Till the end of 2008, the motor conversion renovations had been completed on 334 fans and pumps, and flow pass renovation completed on 19 steam turbines.

Huaneng is constantly implementing the policy of "Developing Large Generating Units and Closing Down Small Ones" for power projects. In 2008, Huaneng newly put 6 coal-fired units of or above 600MW level into operation, totaling 3,760MW, accounting for 72.8% of the total coal-fired units' installed capacity of the Company. Meanwhile, Huaneng shut down 12 additional small units totaling 859MW. By the end of 2008, Huaneng had shut down small coal-fired units of 3,250.25MW, completing 129% of the task specified in the *Responsibility Agreement on Closing Down Small Coal-fired Power Generating Units* during the 11th Five-Year Plan.

Great Efforts to Save Water Resource

In 2008, we completed the measurement and calculation of water consumption for power generating of coal-fired units, clarifying the benchmark value of assessment for consumption of fresh water in power generating, facilitating power plants to strengthen water saving management.

We insist to take water from multiple water resources, carefully implement water saving measures. We adopt the seawater desalination technology in coastal water-deficient areas, use recycled water as circulating cooling water source of power plants in urban water-sufficient areas, actively introduce the water saving equipment such as the dry ash and slag removal equipment, so as to reduce the consumption of water resource.

We promote the application of circulating water treatment technology with the concentration ratio larger than 4, extensively adopt the waste water recycling and comprehensive utilization treatment technology and process. We continue to conduct the water saving demonstration program of "water management of coal-fired power plant", and further expedite the construction of water saving renovation demonstration project in Huaneng Dezhou power plant and Huaneng Xindian power plant.



◆ Air-cooling island of Phase 3 of Huaneng Shang'an Power Plant



◆ Treatment pool for the recycled water of Wuhai Thermal Power Plant

Control the Emission of Pollutants

● Step up efforts in renovation of desulfurization equipment

Huaneng steps up the efforts in renovation of desulfurization equipment, continuing the reduction of the total emission of SO₂. In 2008, Huaneng had 51 sets of desulfurization equipment of 18,924MW put into operation, including 42 units in service of 14,134MW which received desulfurization renovation. By 2008, Huaneng had an installed capacity of 60,034MW of units installed with desulfurization facilities, accounting for 86.3% of the total capacity of coal-fired units of the Company, annually reducing 2.4 million tons of SO₂ emission.

● Reduce Emission of Greenhouse Gases

In 2008, Huaneng completed a 3,000 ton/year SO₂ capture demonstration project in Beijing Cogeneration Power Plant, signed an agreement to establish "Greenhouse Gases Emission Reduction Research Center of Huaneng-Shanghai Electric", and actively promoted the preparation of "Beijing Greenhouse Gases Emission Reduction Laboratory".

● Comprehensive Utilization of Solid Wastes

Huaneng actively uses the fly ash separating process, the comminution processing technology and the reutilization process of FGD gypsum, improves the comprehensive utilization efficiency of ashes and by-products of desulfurization in power plants. In 2008, Huaneng signed a strategic cooperation agreement of FGD gypsum with China National Building Material Group.

Great Efforts in Development of Clean Energies

In 2008, Huaneng put 2,083MW of hydropower and wind power into operation, with installed capacity of wind power units over 1,000MW, total installed capacity of hydropower and wind power units over 6,310MW. Huaneng also made substantial progress in the development of nuclear energy projects and proceeded smoothly in the development construction of solar photovoltaic power generation and biomass power generation in the year.

● Hydropower

Over the whole year of 2008, Huaneng put 1,450MW of hydropower units into operation, continued construction of 14,585MW, comprehensively conducted the preliminary work of the hydropower development projects of the upstream Lancang River in Yunnan, Fujiang River in Sichuan, Wasi River, and made efforts to push forward the development and construction of Zangmu hydropower station in the middle reach of Brahmaputra River.



◆ Company leaders investigating nuclear power project



◆ Opening ceremony of Kunming Shilin Large Solar Grid-Connected Photovoltaic Demonstration Power Station



◆ Wind farm with the highest elevation in China- Huaneng & HK Electric Dali Dafengba Wind Farm.

● Wind Power

Over the whole year of 2008, Huaneng put 633MW of wind power units into operation, continued construction of 1,459MW, with total newly approved installed capacity over 1000MW, remarkably increased the wind power plant resource reserve. In January 2008, 100 MW level wind farm, the highest rate of home-grown wind farm, Huaneng Tongyu Wind Farm in Jilin province was put into operation.

● Nuclear Power

Huaneng actively promoted the 4th generation nuclear reactor project with advanced technical features, completed the preliminary work of high temperature gas-cooled reactor nuclear power demonstration project in Shidaowan, Shandong province, and reported this progress to superior government for approval. The feasibility study design stage of the pressurized water reactor nuclear power project of Shidaowan Phase 2 was started. The nuclear power project with the share of the Company(shareholder) in Hainan province has made substantial progress.

● Greengen

Huaneng initiated and conducted the "GreenGen" program with 8 large state-owned energy and investment corporations. In 2008, the preliminary work of home-made IGCC demonstration project of GreenGen in Tianjin was completed in compliance with the requirements of National Energy Administration. Huaneng further optimized the design of IGCC, to ensure successful implementation of the first stage plan of GreenGen. Cooperating with research institutes, designers and manufacture factories in China, and based on the demonstration project, Huaneng completed the independent R&D of GreenGen technologies and key equipment.

● Biomass and Solar Photovoltaic Power Generation

Huaneng actively developed biomass power generation and solar photovoltaic power generation technologies. On June 27, 2008, the construction of Huaneng Changchun Biomass Thermal Power Plant was started. On December 6, 2008, the biggest solar photovoltaic demonstration project in China - Kunming Shilin Solar Grid-connected Photovoltaic Demonstration Power Station was officially started construction in Shilin, Kunming. This project will provide a comprehensive scientific research platform for enhancing the planning, design and construction level of large grid-connected photovoltaic power generation project and promoting research and industrialization of photovoltaic equipment, and will play an important role in spreading the knowledge of utilizing solar energy.

Actively Promote Technical Innovations

Huaneng stepped up efforts in supporting technical innovations. In 2008, Huaneng had 120 scientific programs initiated and a total scientific research budget of 234.04 million Yuan invested in the whole year.

● Perfect Innovation System

In 2008, Huaneng completed the establishment of Scientific Department, invested to establish Technical Innovation Center of Huaneng Group, further integrating its scientific resources, basically forming a complete technical innovation system. Xi'an Thermal Power Research Institute under Huaneng became the main support of technical progress and innovation. Huaneng Expert Committee composed of academicians from Chinese Academy of Sciences and Chinese Academy of Engineering provided decision making advice and technical guide for development and scientific innovation of Huaneng. Huaneng Technology and Economy Research Institute actively conducted researches on soft subjects centering around sustainable development of China's electric power industry, providing advice for the decision making of Huaneng.

● Promote Scientific Research Programs

Huaneng actively promoted important scientific research programs. The important national technology and equipment development program - development of large circulating fluidized bed boiler was accepted. Cooperating with scientific research institute, North United Power Co., Ltd. successfully tested on the mitigation effect of the 500KV system series compensation operation and sub-synchronous resonance.

Huaneng has various scientific innovation achievements. In 2008, Huaneng obtained 13 patent licenses in China, 1 patent license in USA, and submitted 21 new patent applications. As examined by peer review organized by China Enterprise Confederation and China Enterprise Directors Association, Huaneng created 12 "new records of Chinese enterprises" in 2008, and the total number of records is 43 now.

● Strengthen Exchange and Cooperation

In 2008, Huaneng carried out the exchange and program cooperation with China Electric Power Research Institute, Harbin Electric Machinery Co., Ltd, Tsinghua University, North China Electric Power University, North China Power Engineering Co., Ltd, Sifang Automation Co., Ltd, China Iron & Steel Research Institute Group and some domestic scientific research institutions. The external cooperation of Huaneng received remarkable results, with the Sino-European Near Zero Emissions Coal Project and Carbon Capture and Storage Project proceeding smoothly.



◆ Opening ceremony of high temperature gas cooled reactor nuclear power station



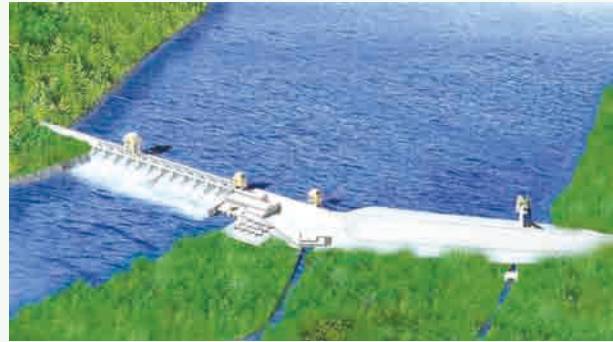
◆ Energy conservation and emission reduction campaign of Huaneng Tongchuan Power Plant



◆ Energy conservation campaign of Huaneng Pingliang Power Plant

Actively Develop CDM Project

In response to the global climate change, Huaneng continues to promote the development of clean development mechanism (CDM) projects. In 2008, Huaneng Gezhen Key Project was officially listed in CDM; 4 CDM projects including that of Shanghai Gas Turbine Combined Cycle Power Plant were registered at the Executive Board of the United Nations.



◆ Design drawing of Gezhen key project



◆ Transplanting plants under special state protection (Nuozadu power station)

Focus on Ecological and Environmental Protection

Huaneng adopted the environmental protection plan of “seven cascades per one reservoir” in the construction of the hydropower station upstream of Lancang River, and lowered the normal pool level of cascade of Wunonglong hydropower station, protecting the “Three Parallel Rivers” reach of World Natural Heritage, and reducing the impact on the farmland concentrated reaches.

To protect rare wildlife resources in the reservoir area, Lancang River Hydropower Co., Ltd successively built 5 protection areas for transplanting rare plants, covering an area of 400 mu, transplanting over 35,000 rare plants including Terminalia myriocarpa, Toona ciliata. An elephant feed base covering 500 mu was built also. Nuozhadu Hydropower Station took water from various levels, controlled the temperature of water discharged downward, to avoid the impact of low temperature discharge on fishes; took the measures of catching fishes with net and transferring them over the dam, to facilitate the genetic exchange of fishes.

Performance of Energy Conservation and Environmental Protection

In 2008, Huaneng consumed raw coal 171,369,800 tons. The power supply coal consumption is 333.59g/kWh for coal-fired power generation, a 3.71g/kWh reduction as compared with the previous year, and 15.41g/kWh lower than national average level.

19 power plants of Huaneng took part in the “1000 Companies Energy Conservation Campaign”, saving 1,160,000 tons of coal equivalent, completing 192% of the annual decomposed objective.

The water consumption of coal-fired power generation was 473,410,000 tons, water consumption for unit power generation

was 1.37kg/kWh, and waste water discharge of the whole year was 71,610,000 tons.

Huaneng Yuhuan Power Plant was named “National Environment Friendly Project” by the Ministry of Environmental Protection of the People’s Republic of China.

Huaneng has remarkable energy conservation and environmental protection performances, without any violation of national environmental laws and regulations.

Overview of Energy conservation and Emission Reduction Indices of Huaneng in 2006—2008

Item	Unit	2006	2007	2008	Objective of the 11th Five-Year Plan
Coal consumption for power generation	g/kWh	344.87	337.37	333.59	329.00
Service-power consumption rate of power plant	%	5.91	5.88	5.9	5.50
Water consumption for Unit power generation	kg/kWh	1.47	1.33	1.37	1.30
Emission of SO ₂	g/kWh	5.12	3.93	3.33	1.92
Emission of NO _x	g/kWh	2.38	2.34	2.20	1.86
Comprehensive utilization rate of slag and ash	%	60.80	68.30	63.03	90.00



Huaneng Yimin Coal & Power Co., Ltd. (YMCP) is the first domestic pilot project of coal-power integration featuring with "integrated design and development" of coal and power plant, characterized by typical circular economy, which realizes the win-win of environment and development. It has been awarded "National Model Collective of Unity and Progression of Nationalities", "National Demonstration Project in Water and Soil Conservation", "Environment-friendly Enterprise of Inner Mongolia", "Water-saving Enterprise of Inner Mongolia Autonomous Region", "Model Enterprise of Circular Economy", "National Advanced Mining Enterprise of Reasonable Development and Use of Mineral Resources", "National Super Grade Safety and High Efficiency Open Pit Mine", "Huaneng's Energy-conserving and Environment-friendly Coal-Fired Power Plant" by relevant state departments and local governments.

In Yimin coal-power integrated construction project, the coal produced from open pit mine are directly delivered to power plant via a coal conveyor, the drainage water from mining is delivered via an underground pipe to power plant as circulating cooling water, and ashes, after classification and comprehensive utilization, are transported to the open pit mine via an ash removal corridor, where ashes are mixed with coal mining spoils and the mixture is discharged to the open mining pit. There is no need to build ash yard, which avoids the pollution of surrounding environment by the ash yard and rinsed ashes; after backfilling, open pit mine areas are covered with muck to restore the vegetation to flourish. In this way, the original appearance of grassland can be restored generally.



Typical Cases



Building a Model of Circular Economy

Yimin's integration of coal mine and power plant realizes scientific circular use of coal, ash, water and soil, over 13 million tons of drainage water can be re-used, more than 500,000 tons of ashes utilized and over 30 hectare areas restored with vegetation using muck each year. Meanwhile, we proceed with circular economic projects constantly during production. Huaneng has built a new building material plant with an annual output of more than 20 million pieces of fly ash bricks, with an investment of over 5 million Yuan; it has also built a powder coal screening, storage and load/unloading device to enhance the added value of comprehensive usage of the fly ash, with an investment of over 600,000 Yuan. It can provide over 100,000 tons of fly ash for Mengxi Cement Plant. These circular economic projects further promote the development of company's environment projection.

YMCP sticks to the strategy of circular and sustainable development, turning the advantage of resource into that of development. In 2008, under the situation of overall benefit falling in power generation industry, YMCP generated 10.7 billion kWh, produced and sold 13.8 million tons of coal, with an operating revenue of 3.498 billion Yuan, consolidated profit of 837 million Yuan, and payed tax of 870 million Yuan. All these figures are the best records in Huaneng's history.



4

Economic Responsibility– Intensive Operation and Healthy Development

Events

- On March 14, 2008, we acquired 100% of stake of Singapore Tuas Power Co., Ltd.
- On October 24, 2008, we acquired 40% of stake of Gansu Huating Coal Group.
- On December 4, 2008, the construction of Gansu Tianping railway with the share of the Company (shareholder) was commenced.
- On December 11, 2008, we signed a share transfer contract with Luneng Group to acquire its power generation assets in Shangdong.
- On December 18, 2008, the domestic installed capacity of our company broke through 80GW.
- On December 21, 2008, Huaneng Yuhuan Power Plant Phase I was awarded Gold Prize for National Excellent Project.



- Operational Concepts
- Operational Objectives
- Operational Measures
- Operational Performances
- Typical Cases

Operational Concepts

Healthy development is a strong support for sustainable development. To achieve healthy development, we must adhere to the modern operation concept of intensive operation. Through legal operation, we expand our operational scale, improve our operational quality, enhance our profitability so as to realize the value maintenance and appreciation of state-owned assets, and build a company with high-efficiency and high benefit.

Operational Objectives

Achieve 386.86 billion kWh power output; achieve the coal production of 23.4 million tons.

The installed capacity of power generation broke through 80GW; the coal output exceeded 24 million tons/year.

The installed capacity of newly-started power projects reach 22.2GW, the production capacity of newly-started coal mine projects reach 21.8 million tons/year.

Sales revenue exceeded RMB140 billion Yuan.

Realized the annual performance assessment objectives assigned by State-owned Assets Supervision and Administration Commission (SASAC).

Operational Measures

Perfect Management System

We actively draw on experience at home and abroad, absorb advanced management concepts, reform management mechanism, perfect management system and promote process optimization.

- Perfect Performance Management System

We have perfected a performance management system with budget as a lead, benchmark as the main line, responsibility as a carrier, and a linkage between performance and salary. We have adopted a performance assessment method on the basis of "balance score card" concept to match the "index setup-assessment and evaluation-salary allocation" system.

- Strengthen Management of Operation Risks

We strengthen risk mitigation management by promoting the establishment and operation of the internal control and management system.



● Timely Adjust Key Points of Management and Control

With the rapid increase of the coal cost, we focused on perfecting the closed loop management of whole process from the procurement, transportation and inspection of the fuel, the coal yard management, to the heat value difference monitoring and the furnace test, striving to control the fuel cost.

By actively responding to the call by the State Council of "Reducing public expenses by 5% in 2008 than the budget

for earthquake rescue", we added the objective of reducing costs as a control index on assessment. All industrial companies have completed their reduction objectives. We prepared a *Rating Standard for Four Costs of Coal-fired Power Generation Units of Huaneng Group*, and made every effort to reduce cost and increase benefit, with four costs keeping at leading level in the industry.

Innovate Marketing Models

● Strive to Expand Power Market

In accordance with the principle of "one policy for one plant according to different places, flexible response for different times", we actively sought supports from local government and power grid enterprises increase the load rate of units and the time of equipment utilizing. In 2008, the installed units of our corporation generated power of 364.5 billion kWh, with 261 more equipment utilizing hours than the national average level.

● Actively Strive for Reasonable Electricity and Heating Prices

According to relevant policies of national power industry and on electricity tariff adjustment, we promoted the implementation of electricity tariff by actively coordinating with local government. We have gained the reasonable electricity tariff for generating units whose flue gas desulfurization equipment was put into operation before 2008, where desulfurization cost was not taken into account in on-grid tariff. New breakthroughs occurred in heating price adjustment in Huaneng Power International, North United Power Co., Ltd. and Huaneng Shandong Company.

● Strengthen Recovering Costs of Electricity and Heating

According to different market situations, we return electricity and heating costs in full by timely proposing incentive policy and mobilizing initiatives. In 2008, large amount of arrears in Yueyang and Yimin power plants were solved properly.



◆ Central control room



◆ Production site patrol



◆ Huaneng Yueyang Power Plant

Expand Power Generation Scale

We persist in laying equal stress on the development and acquisition, constantly expand the power generation scale and enhance the development quality. By the end of 2008, the total installed capacity of Huaneng's wholly-owned and holding power plants both at home and abroad had reached 85,862MW, with a net increase of 14,286 MW compared to the same period of last year. The domestic installed capacity of Huaneng had accounted for about 10.8% of the national installed capacity.



◆ Installing the rotor of the first hydro turbine generating set in Jinghong Hydropower Station

Speed up Development Construction



◆ Operation ceremony of Huaneng Ruijin Power Plant Phase I

Get project preparations ready. We have figured out a number of projects with investment potential by carefully complying with national regulations on the project development and actively initiating our preparation of the 12th Five-Year Plan and Development Planning for the Year 2020. In 2008, the approved power projects amounted to 7,684MW.

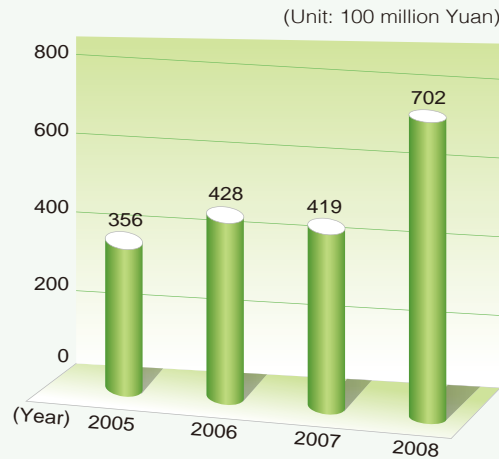
Strengthen Management of Basic Construction. In accordance with the basic construction principle of "Two highs and one low", we strengthen the project safety, quality and progress management to ensure that units are put into operation under relative standards, operated stably and economically. In 2008, the installed capacity of new power projects put into operation amounted to 7,245MW; and a sum of 70.2 billion Yuan was invested in the basic construction of our power projects.

In 2008, we had 9 projects awarded Chinese Excellent Power Project Prize, including 1 Gold Prize for National Excellent Project and 4 Silver Prize.

List of our company's projects awarded the Chinese Excellent Power Project in 2008

Awardee	Name of Project	Capacity	Prize
Yuhuan Power Plant	Phase I	2 X 1,000MW	Gold Prize for National Excellent Project
Huaiyin Power Plant	Extension project Phase III	2 X 300MW	Silver Prize for National Excellent Project
Hegang Power Plant	Phase II	1 X 600MW	Silver Prize for National Excellent Project
Xiaotiandu Hydropower Station	Wasi River Project Phase II	3 X 80MW	Silver Prize for National Excellent Project
Zhongdian Weihai	Wind power generation project	19.5MW	Silver Prize for National Excellent Project
Luohuang Power Plant	Extension project Phase III	2 X 600MW	
Xindian Power Plant	Reconstruction and extension project	2 X 300MW	
Manwan Hydropower Station	Phase II	1 X 300MW	
Huitengxile Wind Power Farm	Extension of wind power generation project	40.5MW	

List of investment for our basic construction (2005–2008)



● Strengthen Capital Operation

In 2008, we acquired Luneng Group's power generation assets in Shandong, 56.5% of shares of Ningxia Daba Power Generation Co., Ltd., whole assets of Yunnan Tianba Hydropower Station; 100% shares of Jiangxi Pingxiang Power Plant, with additional 20 million H shares of Huaneng Power International from capital market via Huaneng Hongkong Co., Ltd.. We transferred 10.66% of shares of Shenzhen Energy Development Co., Ltd. of State Grid through listing.

● Explore International Resources

We strengthen the development and management of investment projects of the overseas energy and resource by actively implementing the "going global" strategy. In March 2008, Huaneng successfully acquired 100% of stake of Tuas Power Co., Ltd., accounting for 25% share of the Singapore power market, so Huaneng becomes an important participant in Singapore power generation and retail markets. In 2008, 400MW Grade one hydropower station of Burma Ruli River was put into operation, which opened up a new way to explore the overseas energy cooperation and development.



◆ Singapore Tuas Power



◆ Opening Celebration of Huaneng Invesco Ross Company

Optimize Power Structure

● Adjust Power Sources Structure

We strive to develop hydropower, actively develop nuclear power, speed up the development of wind power, and seek to develop the biomass power generation. Huaneng further optimizes the ratio of coal-fired power, hydropower and wind power. By the end of 2008, the installed capacity of renewable energy including hydropower and wind power had accounted for about 7.35% of total installed capacity; the installed capacity of wind power had increased by 1.7 times than that of 2007.

● Optimize Generating Set Structure

We actively develop advanced supercritical and ultra-supercritical coal-fired power units featuring with "high parameter, large capacity, high efficiency and low pollution". By the end of 2008, we had owned up to 42 sets of 600MW level and above units, with an installed capacity of 27,340 MW, accounting for 34.4% of coal-fired power generation units.

● Strengthen Regional Layout

We actively implement the regional development strategy of "consolidating the East, strengthening the South, improving the Central China, entering the West, surrounding the Capital and going out at right time" by constantly perfecting regional layout. In 2008, we established regional companies in Shandong, Shaanxi and Gansu provinces to integrate local power energy projects. Through capital operation, development and construction, we have installed our first unit in Anhui and Ningxia provinces respectively.



◆ Huaneng Chaohu Power Plant

Expand Coal Bussiness

● Explore Coal Resources

We actively explore coal resources and promotes the construction of coal-power base in order to strive for building a long-term stable coal guarantee system. We establish the long-term cooperating relationship with coal enterprises to increase the order ratio of key contractual coals and the performance ratio of key contracts. The construction of Mengdong coal power base was speeded up, and the development of coal projects in Inner Mongolia, Gansu and Shaanxi were fully under way. We gained the mining right of 900 million ton of coal in the southern mining area of the southern coalfield in Zhengning, Gansu province, and acquired 40% of stake of Huating Coal Group. In 2008, we had an approved controllable coal production capacity of over 27 million tons/year, with an output of more than 22 million tons/year.



◆ Coal transportation dock of Huaneng Yuhuan Power Plant



◆ Signing ceremony of coal procurement and sales

● Guarantee Coal Transportation

With the support of the Ministry of Railway, we have realized the transport capacity of 5 million tons coal from Zhalainguo'er to Yingkou port; took part in constructing Mengji, Tianping, Xiping railway projects as a minority interest shareholder; strengthened cooperative development with Tianjin port, Jintang port and Yingkou port; actively promoted the construction of coal transferring base like Taicang port and Haimen port; Shanghai Ruining Shipping Co.,Ltd. was set up, and the total transportation capacity of Time Shipping Co.,Ltd. has been up to 1.6 million load tons.

● Enhance Coal Sales

We enhance coal sales, with stable and rapid development of coal sales services. Huaneng Energy & Communications (holding) Co., Ltd completed 18.06 million tons of coal sales and supplied 5.38 million tons of coal for Huaneng' power plants.



Deepen Fund Management

In 2008, under the double influences from the short cash flow due to the sharp rise in the fuel cost, and the tight capital market supply, it became harder for the fund management. We actively took measures to constantly perfect working system, expand financing channels and strengthen the management of stocked capital, so as to guarantee fund demands of production and operation.

● Establish Working Mechanism

In 2008, we established a fund guarantee leading group with Company leaders, persons in charge of Finance Department, Budget Department, Huaneng Power Development Company, HPI and Huaneng Capital Service as its members. Based on the principle of "Overall plan and consideration, standing on the current situation and orienting toward the future", we made the integrated deployment and arrangement of the fund guarantee work of Huaneng's enterprises, laying foundations for the fund management of Huaneng.

In 2008, we issued short-term financing bonds of 13.6 billion Yuan, middle-term notes of 4 billion Yuan and company bonds of 4 billion Yuan by seizing the opportunity that the State speeds up building of bond market. Through active introduction of innovative financing types of postal saving fund, insurance fund, leveraged lease, we expanded financing channels and effectively reduced financial costs.

● Management of Stocked Capital

Huaneng reduces capital occupation and strives to reduce the financing pressure and costs by actively strengthening the cash flow management and reasonably reducing monetary funds balances. Through further strengthening the "revenue and expense" management with capital budget as its basis and financial company as its capital settlement platform, the capital centralization has been enhanced significantly; and through financial company to finance for Huaneng's enterprises, the utilization rate of stocked capital has also increased.



◆ Signing ceremony of shipping insurance



◆ Research on strengthening risk management

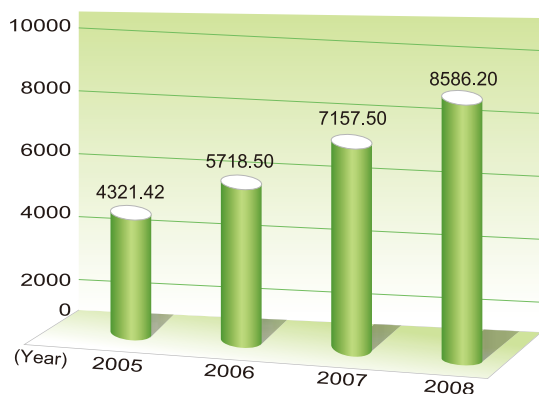
Operational Performances

In 2008, the power industry experienced serious difficulties that are rarely seen in the history, when coal prices continued to rise sharply, power demand decrease constantly, and the production and operation cost of power generation enterprises rose sharply, which resulted in loss in power generation industry. We suffered a loss of 5.841 billion Yuan. However, there were large increases in the annual power output and operating revenue of our company in general compared with the same period of last year, and the annual operating performance still reached the performance assessment index requirements set by SASAC.

Huaneng's Main Economic Indices (2005 – 2008)

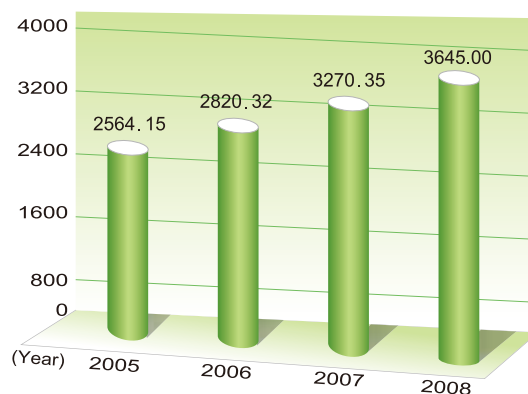
Installed capacity

(unit: 10MW)



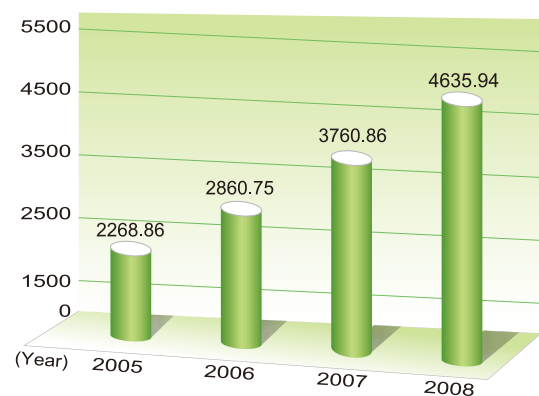
Power output (domestic installations)

(unit: 100 million kWh)



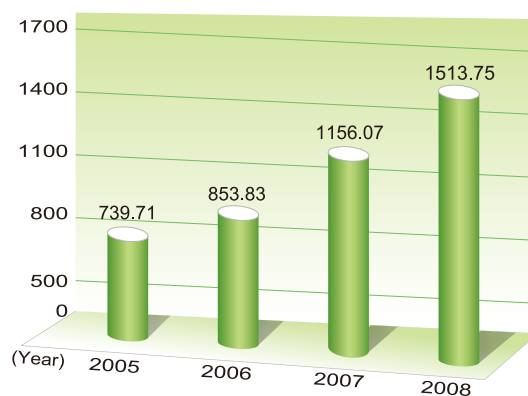
Total asset

(unit: RMB100 million Yuan)



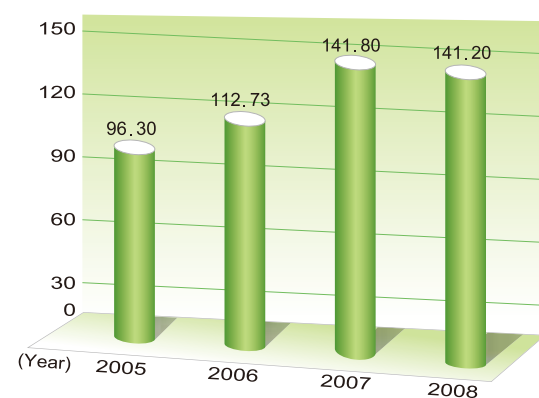
Sales revenue

(unit: RMB100 million Yuan)



Tax

(unit: RMB100 million Yuan)



Huaneng has obtained annual operational performance assessment Grade A by SASAC for 4 years in succession. It has also won tour of duty operational performance assessment Grade A, awarded "Excellent Performance Enterprise", and is the only one of power generation companies supervised by SASAC that is awarded such prize.

“Two Supporting Industries” Pushing Core Business Forward

Under serious impacts from financial crisis, the production and operation of power industry was more and more tough. Huaneng Capital Service Co., Ltd and Huaneng Energy & Communications (holding) Co., Ltd played a role of functional support and performance support, contributing to the Group's remaining in its leading position of performance among the power generation enterprises.

Energy Transportation

In 2008, Huaneng Energy & Communications (holding) Co., Ltd realized a total operating revenue of 37.98 billion Yuan, with an increase of 87.39% compared with the same period last year, which means a total profit of 1.107 billion Yuan.

The development quality was constantly improved. By the end of 2008, the coal production capacity had reached 27.24 million tons/year, ranking still the second among domestic power generation companies; the transport capacity of Shanghai Time Shipping Company reached 1.6 million load tons. The main economic indices of Huaneng Energy & Communications (holding) Co., Ltd were increased rapidly, with significantly enhanced comprehensive strength, constantly improved asset quality, more reasonable industry layout, and more focused core business, which increasingly improved the integrated trend of production, transportation and sales, continuously optimized the trade structure, and gradually constructed a new economic increase point.

Constantly intensified development potential. In 2008, Huaneng completed the approved coal mine projects of 5 million tons/year; gained 900 million tons mining right of South Mining area of Gansu Zhengning South Coalfield; acquired 40% of share rights of Huating Coal Group. It realized the transport capacity of 5 million tons coal from Zhalainguo'er to Yingkou port; took part in constructing Mengji, Tianping, Siping railway projects as a shareholder; Shanghai Ruining Shipping Company was established. With several large coal projects putting into production in the coming years, the supporting coal logistic and trade system will be more substantial, the integrated construction of coal port transportation based on self-owned coal mines will be more effective, and the industrial structure and asset quality that support the development of Huaneng's future performances will be further optimized.

Typical Cases



Capital Services

In 2008, Huaneng Capital Service Co.Ltd continued to provide performance support and service support for Group's core business, achieving operating revenue of 4.205 billion Yuan, up 11.11% compared with the same period last year; with a total profit of 2.278 billion Yuan. Huaneng Financial Co.Ltd provided financing service for power business of the Group, and actively conducted capital forecasting and arrangement, which guaranteed emergency loans and emergency money demands of the Group. The amount of fund settlement reached 907.4 billion Yuan, up 57% compared with the same period last year; average daily deposit reached 17.2 billion Yuan, up 30% compared with the same period last year; average daily loan amounted 14.8 billion Yuan, up 3% compared with the same period last year. The policy of interest rate down 10% was continued, and 3.5 billion Yuan was arranged to loan from banking syndicates.



The financial service platform is gradually improved. Through establishment, merger, acquisition and joint venture, our capital service company has directly or indirectly owned 8 companies including Financial Company, Great Wall Security, Alltrust Property Insurance Co.Ltd, Guicheng Trust, Baocheng Futures, Invesco Ross Investment and Consulting Company, Great Wall Fund, and Invesco Great Wall Fund as well as over 180 branches across the country, and has trained a professional talent team being command of the electric power and finance knowledge.

Constantly increased service items. The services of the capital service company have extended to provide specialized financial consulting services for merger, acquisition, stock reform of Group company and share rights management of listed companies, sell enterprise bonds and company bonds, provide power insurance and claim settlement services and disaster and loss prevention services. Its services also have expanded to the planning design and implementation of non-banking credit financing services including bonding of enterprise assets, financing lease, credit loan and indirect investment of insurance funds.

Gradually emerged brand effects. With the support of the capital, business, management and brand effect of the Group's core business, the capital service company's good performance takes the lead in the industrial group company, and has gained appreciation of the People's Bank of China, SASAC and China Banking Regulatory Commission, etc.

5

Social Responsibility- Mutual Benefits and All-win in Harmonious Development

Events

- On February 3, 2008, Huaneng was awarded "China Red Cross Humanitarian Service Medal".
- On April 29, 2008, 4 organizations of our company were honored to receive "National May 1st Labour Merit Certificate".
- On May 24, 2008, we signed a 4.5 billion Yuan equipment order with Dongfang Electric Group in support of its production recovery after the occurrence of Wenchuan earthquake.
- On June 22, 2008, the donation amounts for earthquake relief by our company added up to over 79 million Yuan, including "special party membership dues" of 8.4459 million Yuan.
- On July 13, 2008, Great Wall Securities Co., Ltd. affiliated to our company donated 800,000 Yuan to the reconstruction of Yinxiu Elementary School. At its initiative, Shenzhen security industry donated over 32 million Yuan to the disaster area of Wenchuan.
- On December 2, 2008, Huaneng was awarded "China Charity Prize" by the Ministry of Civil Affairs.



- Social Responsibility Concepts
- Social Responsibility Objectives
- Measures and Performances for Social Responsibility
- Typical Cases

Social Responsibility Concepts

Harmonious development is an important guarantee for sustainable development. To achieve harmonious development, we must adhere to the basic guideline of multilateral cooperation and mutual benefits, and take on our social responsibility, strive to create favorable internal and external environment, share development achievements with its stakeholders, so as to promote the building of a harmonious society and be an excellent corporate citizen.

Social Responsibility Objectives

- Be responsible for employees to achieve common development.
- Be responsible for clients and partners to achieve mutual benefits.
- Be responsible for communities to contribute to the society and promote to build a harmonious society.

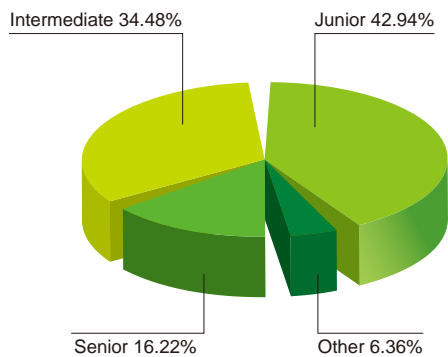
Measures and Performance for Social Responsibility

Establish Harmonious Employment Relationship

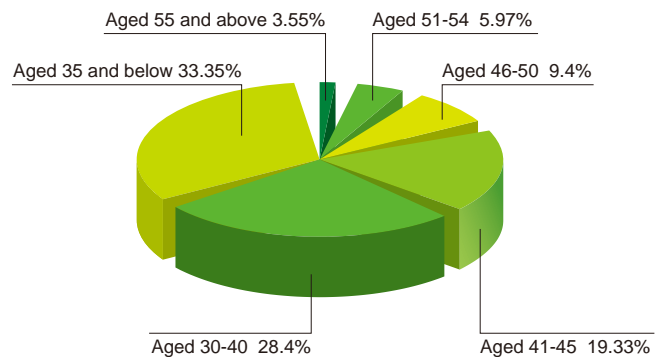
We steadily promote a strategy of “developing enterprise by talents”, by innovating talent management system, improving talent capability, and strengthening talent incentive mechanism, optimizing quality structure, cultivating and selecting senior managers, professionals and skilled workers.

By the end of 2008, we had a staff of 94,691 people, of which 48.35% had college degrees or above; the number of senior professional technicians accounted for 16.22%; employees aged under 40 accounted for 61.74%. The ratio of male employees to female employees was 3.01:1, and that of male managers to female managers was 2.36:1.

Structure of Professional Technicians



Age Structure of Employees



● Safeguard Employees' Rights and Interests

In 2008, Huaneng carefully implemented Labor Contract Law and its enforcement regulations, by setting up training classes on enforcement regulations of Labor Contract Law, implementing *Regulations on Paid Annual Leave of Employees* to protect employees' legal rights and interests.

In 2008, We began to implement the budget control on total payroll and to promote the standardization of enterprise supplementary pension. We formulated *Suggestions on Standardization of Supplementary Pension of Huaneng*. To perfect special guarantee capital management, we established a special guarantee management commission, and published *Opinions on Relevant Issues for Further Perfecting Special Guarantee Fund Management of Huaneng*. We appropriated funds for the employees' living and the reconstruction of Huaneng Sichuan Hydropower Co.,Ltd., and provided allowance to them. Our special guarantee fund played its role fully by helping the poor.



◆ Company leaders consoling employees

We attached great importance to employees' health and safety by establishing a mechanism to guarantee employees' health and safety at all enterprises affiliated, and providing annual physical examination for all their employees and special physical examination for those engaged in work with occupational diseases threat.

In 2008, we further strengthened the employee congress system and the company affairs openness system, perfected the employee democratic management. At the same time, we worked out the plan and methods for constructing the employee congress system, gave relevant opinions on strengthening and improving the run of trade union, and took advice widely through seminars and symposium. All enterprises affiliated have established trade union organizations in accordance with Trade Union Law, and ensured to get 100 percent employee attendance. Trade union organizations at all levels carefully performed their responsibilities and signed collective labor contracts on behalf of employees to protect their legal rights and interests.



◆ Relative reunion after the Wenchuan earthquake

We give first priority to employees' life security. After the occurrence of 5-12 Wenchuan Earthquake, our company tried its best to save every employee at any cost as quick as possible. In Taipingyi Hydropower Station, only 4 persons died in this earthquake, other 98 employees survived, fulfilling our solemn commitment of "Never abandon any employee".

● Promote Employees' Development

We adhere to the strategy of developing enterprise by talents, pursue harmonious development of the enterprise and the employee, so as to provide a strong organizational and human resource guarantee for promoting the sustainable development of our company.

In 2008, we implemented *Provisional Measures on Selection and Appointment of Senior Business Leaders* to promote institutionalized, standardized and scientific selection and appointment of leaders. We formulated *Guidance for Further Strengthening Ideological and Political Education of Leaders* to summarize leaders' assessment conditions and set up a management mechanism of the normalization of leader assessment and the dynamic management of reserve leaders.

We strengthened the exchange and training of our business leaders, established a talent support system for the remote and difficult regions, formulated plans for the introduction of overseas talents and implemented a talent plan for supporting Xinjiang and Tibet. In 2008, over 1,280 leaders were involved in work exchange in Huaneng in the whole year, and over 430 leaders at all levels received training at Huaneng Party School.

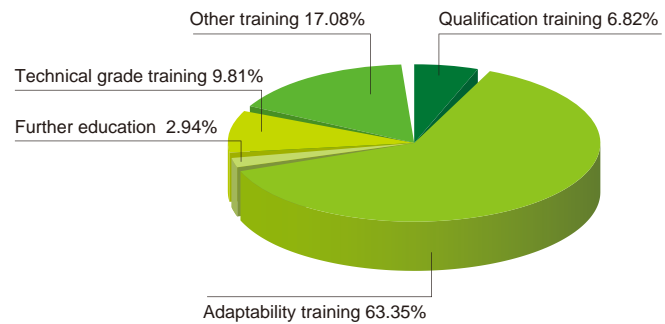
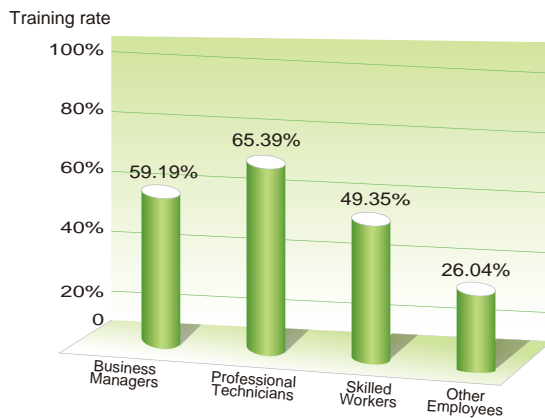
We have 28 education and training centers at present, including one higher vocational education school, one secondary vocational education and training center and 26 other training organizations. In 2008, we carried out the job certification training and the occupational skill training for 340,000 employees, and completed skill appraisal for 3965 employees.

In 2008, we won four silver medals and seven bronze medals in the skill contest of central control operators within power industry held by SASAC. In the skill contest held by China Electricity Council, two employees were honored as Skilled Experts in National Power Industry, and one team won third prize for team work; and also eight employees were awarded as Skilled Expert in National Power Industry of 2008.



◆ Skill training on-site

Employee training in 2008



In 2008, four organizations of the Company were awarded "National May 1st Labour Merit Certificate", two employees were awarded "National May 1st Labor Medal", three organizations were named as national "Worker Pioneer", five organizations were honored as National Model Home of Employee and two employees were honored as National Excellent Trade Union Worker.

● Enrich Our Cultural Life

We vigorously carry out diversified cultural activities. Through many promotions including training and media covering, those amateur cultural teams' activities enrich employees' cultural life, improve their cultural quality and further enhance Huaneng's cohesion and attractiveness.



◆ Employee outward development training



◆ Art performance

Build Harmonious Partnership

● Strengthen Regional Strategic Cooperation

In 2008, we continued to perfect business regional layout and strengthen regional cooperation. We signed in-deep cooperation agreements or cooperative meeting minutes with Gansu, Xinjiang, Shaanxi, Jilin and Shanxi respectively, which further deepened cooperation in related energy projects. Development of power and coal projects in western regions including Xinjiang and Tibet were actively pushed forward.

On December 4, 2008, Tianping railway with a total length of 98.9 km commenced, which was invested jointly by the Ministry of Railway, China Huaneng Group and Gansu provincial government. This railway will be built into a new strategic channel for the development and use of coal resources in Longdong area.



◆ Signing ceremony of the cooperation agreement with Shanxi province

● Actively Promote Industry Development

We pay close attention to the development of advanced technologies in the industry, speed up construction of technology innovation system, and increase the investment in scientific research. We strengthen the technical exchanges and cooperation, actively promote the transformation and application of advanced technologies in power industry by holding symposium or inviting experts at home and abroad for seminar, and further play a major role as a state-owned key enterprises in the construction of national innovative system.

In 2008, we actively took part in legislation research into a number of laws and regulations including *State-owned Assets Law*, *Energy Law*, *Law on Science and Technology Progress* and nuclear power legislation. On February 23, 2008, technological project *Additional Excitation Damping Control for Steam Turbine Generator and R&D of Sub-synchronous Resonance for Torsional Vibration Projection and Constraint* led by our company passed national appraisal smoothly, which has an important practical meaning for transmitting electricity generated by the large mine power plants in China's western energy bases.



◆ Signing ceremony of a main equipment procurement contract with Dongfang Electric Group



◆ Transmission network of Huaneng Shangdu Power Plant

● Strengthen the Construction of Industry Chain

In 2008, we strengthened communication and cooperation with coal suppliers, equipment manufacturers, logistic suppliers and financial institutions to jointly deal with various difficulties and challenges, expand cooperative fields, raise the level of cooperative level, improve cooperative quality so as to create a stable and strong industry chain.

We cooperated with Yingkou Port Group Corporation to build and operate coal transshipment business, with an annual transshipment capacity of 20 million tons. After the occurrence of the "5-12" earthquake, we signed an equipment order with Dongfang Electric Group to help it with production recovery and reconstruction after the disaster.

Build Harmonious Community Relations

● Try Our Best to Guarantee Power Supply and Meet Power Demand

In 2008, combating snowstorm and freezing rain disaster to guarantee power supply, earthquake relief work and power supply for Olympic games brought challenges to continuous and stable supply of power energy. In crisis, at a critical moment, we actively performed our social responsibilities to guarantee power and coal supply and ensure safe production, at all costs, despite any difficulty, so that no power plant of Huaneng experienced shutdown due to coal shortage, and became a reliable support of local power grid.



◆ On-site Equipment Maintenance

Honors from Combating Snowstorm and Freezing Rain to Guarantee Power Supply

Huaneng Yueyang Power Plant was honored by SASAC as Advance Collective against Rainstorm, Snowstorm and Freezing Rain Disaster. Mr. Hao Fapeng from Huaneng Qinbei Power Plant and Mr. Li Hongwen from Huaneng Nantong Power Plant were honored as Advanced Individual. Party committee of Huaneng Jingtangshan Power Plant was honored as Advanced Grass-rooted Party Organization. And Mr. Yu Yuecai from Huaneng Yangluo Power Plant was honored as Excellent Communist Party Member.

Honors from Earthquake Relief

13 advanced collectives and individuals of our company were commended by SASAC. Mr. Cheng Hong was awarded "National Earthquake Relief Model" by the Central Government, SASAC, Central Military Commission, and was awarded "Earthquake Relief Hero" by the Ministry of Human Resources and Social Security and SASAC.

Honors from Guaranteeing Power Supply for the 2008 Beijing Olympic Games

Huaneng Beijing Cogeneration Power Plant, Huaneng Yangliuqing Cogeneration Power Plant and Huaneng Shangdu Power Plant were awarded the honor of "Outstanding Enterprise in Ensuring Power Supply for the 2008 Beijing Olympic Games" by State Electricity Regulatory Commission.

● Actively Participate in Public Services

We constantly promote social public welfare undertakings, including Aid projects to Xinjiang and Tibet and the construction of new countryside. After the occurrence of natural disaster and emergency, our company donates to support the disaster relief and reconstruction in the disaster area, which builds a good Huaneng brand image.

In 2008, we aided Aheji county of Xinjiang province, and carried out projects such as earthquake relief, education, health, the construction of village organization office and the learning and training program for village managers. We aided the construction of 5000 m² inpatient building of the People's Hospital of Aheji, then provided a full set of medical equipment for the hospital. We also carried out an activity-TV Set Entering Every House to donate 4000 TV sets.

In 2008, our headquarter actively carried out anti-poverty work in Hengshan, Jingbian and Yuyang counties of Yulin city to promote the development of local main industries and the labor force transfer and training. By the end of 2008, we had solved the problem of drinking water shortage for over 50,000 people in more than 60 villages in the three counties; aided over 700 excellent poor students, 90% of whom have entered universities; held technical training classes for 12 terms, training over 60,000 people.

Donation of our company in 2008

Items	Amount (10 thousand Yuan)
Snowstorm and freezing rain disaster relief	1100
Earthquake relief	7900
Anti-poverty, Xinjiang and Tibet aid and the construction of new countryside	3655
Others	1000
Total	13655



◆ Television donation

Charity highlighting a Responsible Huaneng

We carefully implement Guidance for Actively Participating in the Construction of Socialistic New Countryside, Opinions on Actively Performing Social Responsibility to Promote Building of Harmonious Society, and Guideline for Performance of Social Responsibility. We further conduct the anti-poverty and Xinjiang and Tibet aid projects, continue to push forward the "100-1,000-10,000" campaign carried by Huaneng Lancang River Hydropower Co.,Ltd., the "Giveback to Communities Program" carried by Huaneng Sichuan Hydropower Co.,Ltd., and the "Anti-poverty Project of Dilapidated House Reconstruction" and the student aid project by North United Power Co., Ltd., so as to achieve Huaneng's aid objective of "Help one village, Aid one county and Promote one region", and push the development of a region and bring benefits to local people by developing a project.

In 2008, we pushed forward the anti-poverty work in Yulin in depth and provided anti-poverty fund of over 4 million Yuan for 3 counties. Through industry, science and education aid, we focused on promoting the local industry development and the labor force transfer and training to enhance their own ability to develop.

Since Huaneng Lancang River Hydropower's campaign has been run for almost 2 years, over 30 million Yuan capital has been invested into the construction of 36 Hope Primary schools, 33 clinic rooms, and 21 cultural rooms. The renewal of 50 villages, the professional training of 845 village teachers, and the tuition of over 700 middle school students entering occupational technical schools all benefited by the campaign. This campaign also supported 1,456 poor high/elementary school students to finish their school, aided the job trainings of 4,500 rural labor forces, the national new rural cooperative medical insurance of 82,827 people and the drinking water project which solves the problem of water shortage for over 10,000 people around power stations.



Typical Cases





We actively implement anti-poverty tasks for aiding Xinjiang and Tibet. By the end of 2008, we had provided anti-poverty fund of 22.5538 million Yuan for Aheji county of Xinjiang. We completed 5 aid projects including earthquake relief, education, health, the construction of village organization office and the learning and training program of village managers. We also initiated the Tuoshigan River Hydropower Development Project. We donated 100,000 Yuan at the occurrence of serious traffic accident in Tongxin Middle School of Aheji county.

In 2008, we continued to subscribe 3,000 copies of People's Daily and Qiushi magazine of 2009 respectively, which would be donated to high/elementary schools and poor enterprises in western poor areas like Yan'an and Yulin cities of Shaanxi province and Ke'erkezi of Xinjiang Autonomous Region, realizing culture aiding.

华能五里希望小学竣工典礼



Prospect in 2009

The year 2009 marks the 60th anniversary of the founding of new China, and is also a critical year to achieve our 11th Five-Year Plan objective.

Currently, the complicated international economic situation brings more uncertain and unstable factors to China's economic development, and our operation and development are faced with new challenges. Working well in 2009 is very important in overcoming various difficulties and challenges, maintaining good development speed and speeding up to build a large corporate group with international competitiveness.

Safe Development

Objective

No personal injury or death accidents, no serious safety accidents or above during the production and infrastructure construction, and no events that may impose an adverse effect on the stability and image of Huaneng.

Measures

Production safety: Implement the system of responsibility relating to production safety; strengthen the equipment management and maintenance; enforce safety management of the coal mine; strengthen to build an emergency management system.

Operation safety: Conduct lawful operation, prevent in particular operating loss, asset loss, investment loss and contingent debt risk.

Political safety: Carefully implement policies of the Party and the State, improve the Party's style of work and focus on combating corruption, maintain the stability of Huaneng.

Image safety: Strengthen close communication with stakeholders, prevent and handle any events that may affect the stability and image of Huaneng.

Clean Development

Objectives

To realize the net coal consumption rate of 330.09 g/kWh.

To complete the annual objectives on the Three-Responsibility Agreement of Energy Conservation and Emission Reduction.

To build 9 or 10 energy-conserving and environment-friendly coal-fired power plants, and realize main technical economic indices up to domestic and international leading level.

Measures

We will implement the responsibility of the leader on the energy conservation and emission reduction as the first principal, rigorously execute "veto system", strengthen the supervision, assessment and accountability system, and make solid progress in building an energy-conserving and environment-friendly company.

We will carry out benchmarking work to find out any defects, implement the measures and rectify any issues, and try to reduce energy consumption indices including the coal consumption rate and the service power consumption rate.

We will strengthen the control of pollutant emission, strengthen technical upgrading, and maintain the construction, operation and maintenance of environment protection facilities.

We will continue to implement the policy of "Developing Large Generating Units and Closing Down Small Ones", increase investment in the development of renewable energy, and further perform the development of clean development projects.

We will implement a scientific outlook on development, improve the technical innovation system, actively promote technical innovation, and perform the pilot work of national innovative enterprise.

In 2009, we will implement in depth the Scientific Outlook on Development, and strive to build a new strength and achieve new breakthroughs through hard work. We will try to promote scientific development and push our company to a new stage, and speed up to build a large and competitive enterprise in the world, so as to do new contributions to effective dealing with the impact of international financial crisis and maintenance of smooth and rapid development of economy and society.

Healthy Development

Objectives

To complete sales revenue of over 170 billion Yuan and reach the performance assessment indices set by SASAC.

To complete power generation of 383.6 billion kWh and coal output 27.7 million tons. To gain the approved power projects with total capacity of over 10,000MW, and coal mine projects with total output of 15 million tons/year.

To commence the construction of new power projects with total installed capacity of 6,520MW, and of new coal mine projects with total output of 15 million tons/year.

To put into operation power generating units with total capacity of over 10,000MW, and new coal capacity of over 8 million tons/year.

Measures

We will prepare our plan for the 12th Five-Year Plan, and demonstrate the important development issues of our corporation.

We will correctly grasp the information of market changes, dynamically adjust the operation policy, and strengthen the marketing management.

We will promote the adjustment of power sources structure, further push the development of hydropower, wind power and nuclear power.

We will carry out development, merger and acquisition concurrently, and strengthen the management of the whole process.

We will strengthen cost management, and try to reduce cost and increase benefit.

We will strengthen coal business management, perfect financial service and enhance its supportive capability.

Harmonious Development

Objectives

To realize the development of both enterprise and employees.

To reap the mutual benefit of enterprise and its partners.

To realize the harmonious progress of enterprise and society.

Measures

We will strengthen leadership and staff building, reinforce democratic management and improve the scientific mechanism for talent selection and appointment.

We will strengthen regional cooperation and cooperation with partners, actively expand cooperative fields, deepen cooperation and enhance cooperative quality.

We will participate enthusiastically in public welfare undertakings including charity and donation, and actively reciprocate the society in combination with the project development and the enterprise operation.

We will promote the construction of "three-color corporate culture" and enhance the cohesiveness of Huaneng.

GRI Indicator Protocols		Page	Degree of Disclosure
1. Strategy and Analysis			
1.1	Statement from the top decision-maker of the organization on the relevance of sustainability to the organization and its strategy	P2-3	●
1.2	Description of key impacts, risks and opportunities	P12	●
2. Organization Profile			
2.1	Organization name	Inside front cover / P9	●
2.2	Major brands, products and/or services	P9	●
2.3	Operational structure of the organization (including main departments, the operating company, subsidiaries and joint ventures)	P9-10	●
2.4	Location of Headquarters	Back flap	●
2.5	The number of countries where the organization operates, names of countries where organization has main businesses, names of countries which are particularly relevant to the sustainable development described in report	Inside front cover / P9	●
2.6	Nature of ownership and legal form	P9	●
2.7	Markets served by the organization (including regional markets, trades served, types of beneficiaries)	P9	●
2.8	Scale of the organization	Inside front cover / P9	●
2.9	Significant changes in size, structure or ownership of the organization during the reporting period	Inside front cover / P8-9	●
2.10	Awards received in the reporting period	P5 / P14 / P17 / P22 / P26 / P30 / P33 / P40/ P43 / P45	●
3. Report Parameters			
3.1	Reporting period(financial year or solar year)	Inside front cover	●
3.2	Date of the previous report (if any)	Inside front cover	●
3.3	Reporting cycle (such as annual, biennial)	Inside front cover	●
3.4	Contact point for inquiring report and report content	Back flap	●
3.5	Process of defining report content	Inside front cover	●
3.6	Boundary of the Report (such as the state, the department, subsidiaries, leased facilities, joint ventures, and suppliers)	Inside front cover	●
3.7	Limits to the cope or boundary of the report	Inside front cover	●
3.8	Basis for the report on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations	Inside front cover	●
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report	Inside front cover	●
3.10	Explanation of the effect of and reasons for any restatements of information provided in earlier reports (such as merger/acquisition, base year/year period changes, business nature, design procedure)		●
3.11	Significant changes from the previous report in the scope, boundary, or measurement methods applied in the report.	Inside front cover	●
3.12	Table identifying the location of the Standard Disclosures in the report	P50-54	●
3.13	The organization listed in the assurance report accompanying the sustainability report provides policy and current practice for seeking external assurance. If not listed, explain the scope and basis of any external assurance provided, and also explain the relationship between the reporting organization and the assurance provider(s).		○
4. Governance, Commitments and Engagement			
4.1	Governance structure of the organization	P9-10	●
4.2	Indicate whether Chairman of the Board is also an executive officer	P9	●
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.		⊗
4.4	Mechanisms for shareholders and employees to provide recommendations or direction for the highest governance body	P9-10	●
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including retirement arrangement), and the organization's performance (including social and environmental)	P9-10 / P17 / P23 / P31	●

GRI Indicator Protocols		Page	Degree of Disclosure
4.6	Procedures for avoiding conflicts of interest within the highest governance body.	P9–10	●
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics	P9–10 / P42–43	●
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation	Head page II / P7 / P15–19 / P23–27 / P31–37 / P41–45	●
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, code of conduct and principles	Inside front cover / P9–10 / P13	●
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance	P9–10	●
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	P9–10 / P13	●
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	Inside front cover / P10 / P54	●
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations.	P56	●
4.14	List of stakeholder groups engaged by the organization.	P55	●
4.15	Basis for identification and selection of stakeholders with whom to engage.	P55	●
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	P55	●
4.17	Key topics and concerns that have been raised by stakeholders during their engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	P54–55 / P57–59	●
5. Economic Performance			
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	P4 / P9 / P34 / P36–37 / P40 / P45	●
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	P24–27	●
EC3	Coverage of the organization's defined benefit plan obligations.	P42	●
EC4	Significant financial assistance received from government.		○
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.		○
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	P40 / P45	◐
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	P42–43	◐
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	P35 / P44–45	◐
EC9	Understanding and describing significant indirect economic impacts, including the extent of the impacts.	P35–36 / P44–47	◐
6. Environment			
EN1	Materials used by weight or volume.	P27	●
EN2	Percentage of recyclable materials used.	P24–25 / P27–29	◐
EN3	Direct energy consumption by primary energy source.	P27	●
EN4	Indirect energy consumption by primary source.	P27	◐
EN5	Energy saved due to conservation and efficiency improvements.	P24 / P27–29	●
EN6	Initiatives to provide energy-efficient or recyclable energy based products and services, and reductions in energy requirements as a result of these initiatives.	P24–27	◐
EN7	Initiatives to reduce indirect energy consumption and reductions achieved		○
EN8	Total water withdrawal by source.	P27	◐
EN9	Water sources significantly affected by withdrawal of water.	P24 / P27	◐
EN10	Percentage and total volume of water that can be recycled and reused.	P24 / P27	◐
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	P27	◐
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	P27	◐

GRI Indicator Protocols		Page	Degree of Disclosure
EN13	Habitats protected or restored	P27	○
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	P27	○
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations by level of extinction risk	P27	○
EN16	Total direct and indirect greenhouse gas emissions by weight	P27	○
EN17	Other relevant indirect greenhouse gas emissions by weight	P27	●
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	P5 / P24 / P27–29	●
EN19	Emissions of ozone-depleting substances by weight		○
EN20	NOx, SOx, and other significant air emissions by type and weight	P27	●
EN21	Total water discharge by quality and destination	P27	●
EN22	Total weight of waste by type and disposal method	P24 / P27	○
EN23	Total number and volume of significant spills		○
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally		⊗
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff	P27	○
EN26	Initiatives to mitigate environmental impacts of products and services, and the extent of impact mitigation	P22–29	●
EN27	Percentage of products sold and their packaging materials that can be reclaimed by category		⊗
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	P27	●
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce		○
EN30	Total environmental protection expenditures and investments by type	P24 / P26	○
7. Labor practices and decent work			
LA1	Total workforce by employment type, employment contract, and region	P9 / P42	○
LA2	Total number and rate of employee turnover by age group, gender, and region	P42	○
LA3	Benefits provided for full-time employees that are not provided for temporary or part-time employees, by major operations	P42–43	●
LA4	Percentage of employees covered by collective bargaining agreements	P42	○
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements	P42	○
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	P42	○
LA7	Rates of injury, occupational diseases, lost days, absenteeism and total number of work-related fatalities, by region		○
LA8	Education, training, counseling, prevention and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	P42	○
LA9	Health and safety topics covered in formal agreements with trade unions	P42	○
LA10	Average hours of training per year per employee by employee category	P42–43	●
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	P43–44	○
LA12	Percentage of employees receiving regular performance and career development reviews	P31 / P43	
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	P42	○
LA14	Ratio of basic salary of men to women by employee category	P42	●

GRI Indicator Protocols		Page	Degree of Disclosure
8. Human Rights			
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening		○
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken		○
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	P42	◐
HR4	Total number of incidents of discrimination and actions taken		No such incidents
HR5	Operations identified in which the right to exercise freedom of association or collective bargaining may be at significant risk, and actions taken to support these rights	P42	●
HR6	Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour	P42	●
HR7	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures taken to contribute to the elimination of forced or compulsory labour	P42	●
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations		○
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken		No such incidents
9. Society			
SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	P16 – 21 / P24 – 27 P44 – 47	●
SO2	Percentage and total number of business units analyzed for risks related to corruption	P13	●
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures	P13	◐
SO4	Actions taken in response to incidents of corruption	P13	●
SO5	Public policy positions and participation in public policy development and lobbying	P44	◐
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country		No such contributions
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes		No such legal actions
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations		No such non-compliances
10. Product Responsibility			
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	P16 – 21	◐
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services by type of outcomes	P19 / P27	◐
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements		○
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes		No such non-compliances
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	P20 / P44	◐
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship		○
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes		No such non-compliances
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data		No such non-compliances
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services		No such non-compliances



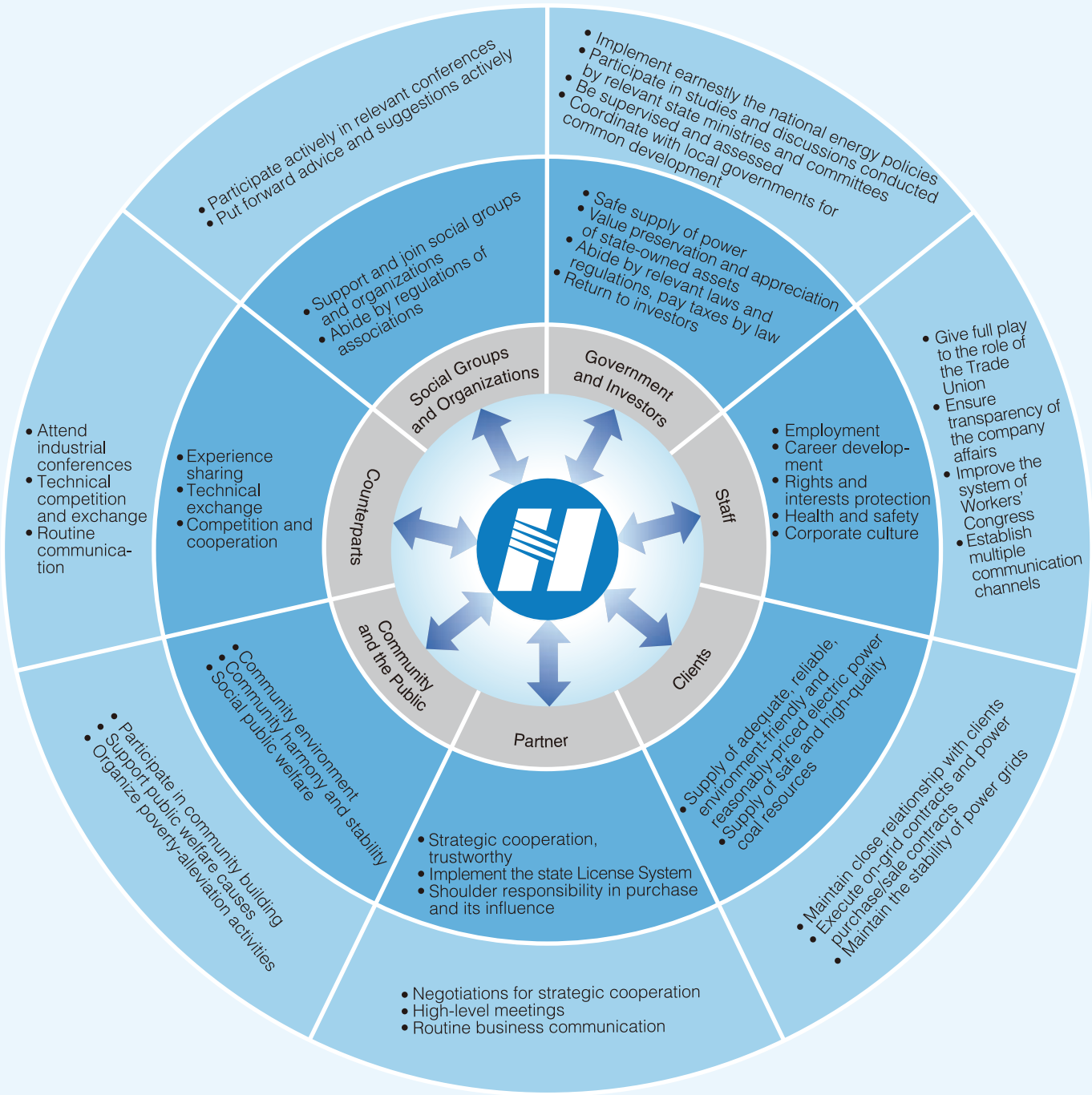
Implementation of the United Nations Global Compact

The United Nations Global Compact requires companies within their influence area to comply with, support and carry out a set of ten universally accepted principles in the aspects of human rights, labour standards, environment and anti-corruption. These principles are from Universal Declaration of Human Rights, Declaration on Fundamental Principles and Rights at Work by International Labour Organization, and Rio Declaration on Environment and Development.

Huaneng, as the first Chinese power company, joined the United Nations Global Compact in November 2007, and since then has been actively carrying out the ten principles of United Nations Global Compact by promoting safe, clean, healthy and harmonious development.

Ten Principles		Location in the Report	Implementation
Human Rights	Respect and support the protection of internationally proclaimed human rights	P42 – 43	Abide by laws and regulations at home and abroad, support international conventions on human rights approved by the State, safeguard and respect human rights, and guarantee employees' legal rights and interests.
	Not complicit in human rights abuses	P42 – 43	
Labour	Uphold the freedom of association and the effective recognition of the right to collective bargaining	P42 – 43	Adhere to fair and just employment policy, strictly follow national laws and regulations on labour relationship management and labour contract, so as to strengthen the management of employees' labor contract. Establish workers' congress system and the system of making the Company affairs public, so as to ensure 100% employee membership in trade unions at all levels, and strengthen democratic participation of employees.
	Eliminate all forms of forced and compulsory labour	P42 – 43	
	Effective abolition of child labour	P42 – 43	
	Elimination of discrimination in respect of employment and occupation	P42 – 43	
Environment	Take a precautionary approach to environmental challenges	P23 – 27	Optimize power sources structure, close down small coal-fired power generating units, develop clean energy, vigorously develop wind energy, hydropower and nuclear energy, and actively respond to global climatic change. By means of the scientific and technological innovation, actively research and develop clean power generation technologies, and create energy-conserving and environment-friendly coal-fired power plants, thereby mitigate impacts on environment.
	Undertake initiatives to promote greater environmental responsibility	P23 – 27	
	Encourage the development and promotion of environment-friendly technologies	P23 – 27	
Anti-corruption	Work against corruption in all its forms, including extortion and bribery	P13	Strengthen the construction of anti-corruption system, carry forward the probity culture, strictly implement the responsibility system of improving the Party's work style and building a clean governance, thoroughly carry out special activities on combating commercial bribery, and standardize our operations and transactions.

Stakeholders



- Stakeholders
- Major Concerns
- Communication and Exchange



Membership of Important Social Groups and Organizations

Name of organizations	Position
United Nations Global Compact	Member
Association of the Electricity Supply Industry of East Asia and the Western Pacific	Member
China Electricity Council	Vice Director-General
China Enterprise Confederation & China Enterprise Directors Association	Director
China Group Companies Promotion Association	Vice Chairman
Chinese Society for Electrical Engineering	Vice Director-General
Nuclear Power Generation Branch of Chinese Society for Electrical Engineering	Vice Director-General
China Power Supervision Standardization Technical Committee	Member
China Association of Work Safety	Vice Chairman
China Association for the Promotion of Industrial Development	Director
China Supervision Association Power Branch	Vice Chairman
China Enterprise Staff Ideological and Political Work Seminar	Member
Central Enterprises Party Building & Ideological and Political Work Seminar	Member
China Association of Chief Financial Officers	Standing Director
China Accounting Society Power Branch	Vice Chairman
China Federation of Industrial Economics	Standing Director
China Association of Power Equipment Management	Vice Director-General
Chinese Nuclear Society	Standing Director
China Nuclear Energy Association	Vice Director-General
China International Institute of Multinational Corporations	Vice Chairman
Chinese Society for Hydroelectric Engineering	Vice Director-General
China Institute of Internal Audit	Standing Director
China Electric Power Construction Association	Member
China Information Industry Association	Vice Director-General

Comments on Sustainability Report 2008 of China Huaneng Group

I have carefully read the Sustainability Report 2008 of China Huaneng Group (hereinafter referred to as "Report"), and hereby give my comments as follows:

I. Report Content

This is the third sustainability report continuously released by China Huaneng Group. In 2008, guided by the Scientific Outlook on Development, China Huaneng Group implemented the requirements of "Guiding Opinions of the State-owned Assets Supervision and Administration Commission of the State Council on the Fulfillment of Social Responsibility in Central Enterprises", actively pushed forward the building of social responsibility, and closely combined fulfilling social responsibility with promoting enterprise development, thus has made remarkable achievements.

With focus on the core concept of "Three-color Culture", through the four sectors, namely safe, clean, health and harmonious development, the Report discloses the fundamental conditions and major performances of China Huaneng Group in exercising safety control, energy conservation and environmental protection, economic responsibility and social responsibility from such aspects as idea, objective, measure, performance and typical cases.

II. Characteristics of the Report

1. Clear-cut theme. In spite of extraordinarily serious natural calamities and complex and volatile economic situation since 2008, the Report emphasizes the theme of "Motive Force of Development in Belief", and further displays China Huaneng Group's confidence and determination to adhere to scientific thought of development and push forward sustainable development.

2. Prominent highlights. The Report adds the content of "Scientific Development of Huaneng in 2008", which shows, briefly and with excellent pictures and texts, the highlights in Huaneng's sustainable development practice over the past year. Meanwhile, in "Events" and typical cases, the Report particularly discloses the outstanding achievements of China Huaneng Group in fulfilling social responsibility, which gives the readers a clue to know all, and is enlightening and demonstrative.

3. Reasonable structure. Based on the profound understanding of and deep practice at the idea of social responsibility of corporate, the Report is much more

standard and reasonable in its general framework, structural arrangement and content disposition.

4. Readers-friendly form. The Report takes the "Three-color Culture" as the main tone in its format design, with the whole style concise and lucid, and the design beautiful and harmonious, so it is convenient for reading.

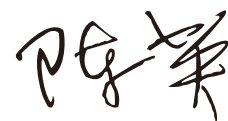
III. Comments on the Report

The Report has a standard establishment, rich content, plenty of cases, and detailed data, and fully discloses the implementation of China Huaneng Group in performing social responsibilities in respects of safety, environment, economy and society, which meets the principles of Global Compact and the requirements of information disclosure of report. The Report is of clear logic and good readability, and hence a sophisticated sustainability report.

IV. Improvement Suggestions

In order to better implement the tasks of fulfilling social responsibility and realize the comprehensive, coordinated and sustainable development of the Company together with society and the environment, my suggestions to China Huaneng Group are: a) to continue to propagandize the corporate social responsibility so as to promote all staff's sense of social responsibility; b) to further improve the index system, management system and operation mechanism of fulfilling social responsibility; c) to actively support and participate in activities related to the Company's sustainable development, strengthen corporate social influence, and further enhance the ability of sustainable development; so as to realize the strategic objective of building a conglomerate with international competitiveness.

Director of United Nations Global Compact Council
Head of Beijing Rongzhi Corporate Social Responsibility
Research Institute
Chief of Global Compact China Network Center Office
Vice Director-General of China Enterprise Management
Foundation



May 2009

Comments from Experts



Chu Xuping

Deputy Chief of Research Bureau of State-owned Assets Supervision and Administration Commission of the State Council

After reading this report, I think that there are many highlights, mainly including: Firstly, under the difficult situation in which the national economy is attacked by the financial crisis, Huaneng maintains sound development. In 2008, in face of such adverse factors as a significant fall of the growth speed of social electricity consumption and a sharp rise in coal prices, Huaneng has generated the total electric power of 364.5 billions kWh, with 151.3 billions Yuan of sales revenue and 14.1 billions Yuan of taxpaying, and thus contributed to the healthy and stable development of the national economy. Secondly, when the country and society ran into serious natural disasters, Huaneng was the model that stood firmly before difficulties. During the period of fighting against freezing rain and snowstorm catastrophe, Huaneng ensured that its generating units in Hunan province could function, so Huaneng was praised as "The Top-grade Electric Power Plant of Generation and Supplying Power at Critical Moment", with advanced models (such as Mr. Hao Fapeng) whose deeds are deeply moving. In earthquake relief work, Huaneng put forward the slogan of "never abandon any employee", and strived to help people in danger, fully demonstrating the people-oriented enterprise spirits. Thirdly, while the national economic development faced with increasing pressure of resources and environment, Huaneng has played an exemplary role in respects of energy conservation and environment protection. Huaneng has installed the desulphurization devices for generating units which with a capacity of 60,030MW, completed 129% of the task specified in the *Responsibility Agreement on Closing Down Small Coal-fired Power Generating Units* during the 11th Five-Year Plan, saving 5.4 million tons of coal while the coal consumption is 15.41g/kWh lower than the national average. Under the difficult and changeable circumstance in 2008, the foresaid achievements have shown that Huaneng has a strong sustainable development capability. This report fully demonstrates Huaneng's good image of giving top priority to the whole and undertaking the responsibility bravely, practicing Huaneng's unique concept of the "Three-color Culture". I hope that Huaneng will continue to improve the indicator system of social responsibility according to relevant regulations and standards, blend the social responsibility work into its business management and accrue good experiences, and thus play an exemplary role when central enterprises work to carry forward the sustainable development and fulfill social responsibility.



Zhang Junfeng

Deputy Director of International Labor and Information Research Institute of Academy of Labor Science under Ministry of Human Resource and Social Security

I think this Report has the following advantages: Firstly, the Report has a clear theme and a reasonable structure. It highlights the important issue of energy conservation and emission reduction, and gives prominence to the key points, with an appropriate arrangement of details and omissions. Secondly, the Report has timely information disclosure. Viewed from the starting time of its activities, all information disclosed in the Report is quite timely, which conforms to the general principles of social responsibility report and meets readers' requirements of acquiring information. Thirdly, the Report pays attention to its stakeholders. The Report identifies all stakeholders of the Company with simple diagrams and clear expression. Fourthly, the Report combines work objectives with work performance. It is a major characteristic in the edition of the Report to introduce the Company's annual objectives at the beginning of each part, so that the readers can accordingly understand the purposes and effects of the Company's activities. This might be an innovation in the editing of Sustainability Report. Fifthly, the Report dares to uncover problems. It exposes work injury problems in the Safety part, and meanwhile, analyzes the reasons and puts forward solutions. This demonstrates the Company's courage to face problems and its resolution to make improvements.



Yang Dongning

Associate Professor of Guanghua School of Management, Peking University, and Executive Director of Strategy Research Institute

The Report has the following characteristics: Firstly, the Report is integrated. Referring to the standards system universally used now, the Report takes four Major Responsibilities and four Major Developments as its framework, and objectively and systematically shows the specific measures and achieved performances of Huaneng in implementing coordinated development of economy, environments and society. Based on the industry characteristics and the traditions and practices of Huaneng, this framework is constructed validly, and the Report is more substantive. Secondly, the Report is innovative. Through "Scientific Development of Huaneng in 2008" and "Events", this report gives a comprehensive picture of the "Highlights" during its sustainable development, and uses "Typical Cases" to explain Huaneng's implementing social responsibility, which is very innovative. Thirdly, the Report is of conformity. Apart from the key performance indicators that can be used for making the cross-year longitudinal comparison in the extraordinary year 2008, such work as fighting against snowstorm and freezing rain disaster, earthquake relief, donation for public good, providing poverty alleviation aid for the designated regions, and assisting Tibet and Xinjiang, all can better demonstrate that Huaneng concerns and supports social public welfare, and show Huaneng's consistent stand on actively fulfilling its social responsibilities. Moreover, the outlook of the Report for the future, especially 2009, reflects Huaneng's positive attitude towards continual improvement.



Liu Junhai

Head, Professor and Doctorial Tutor of Commercial Law Research Institute of Renmin University of China

Based on the characteristics of power industry in China and the actual situation of China Huaneng Group, this report is compiled according to the G3 standards of Global Reporting Initiative, and summarizes comprehensively and thoroughly the specific measures and fruitful results of fulfilling social responsibilities in 2008. The Report is practically consummate and perfect either in compiling style or in language expression. The particularly commendable action is that Huaneng released *Guideline for Fulfilling Social Responsibility* in May 2008, defining the significance, guiding ideology, overall goal and primary contents of fulfilling social responsibility. This indicates that Huaneng's social responsibility actions have been on a normalized, standardized and institutionalized road. I think that the issue of *Sustainability Report 2008* by Huaneng has a typical significance. This surely will be of great practical significance and theoretical value. It will further push the corporate social responsibility to spread widely in China, thoroughly implement the scientific development view of put people first, perform the work arrangement on "maintaining economic growth, people's livelihood and stability" brought forward by the CPC and the State, further enhance the Company's core competitiveness, and thus better safeguard the legitimate interests of the Company's stakeholders. I honestly hope that other state-owned enterprises and state-holding enterprises can take the "Sustainability Report 2008" by Huaneng as a model, learn from it, and choose what is good and follow it, and finally promote the "Corporate Social Responsibility Campaign" of state-owned enterprises to a new stage.



Yin Gefei

Director of the Corporate Social Responsibility Development Center of China WTO Tribune

This report not only maintains the framework of the previous report, but also makes a large number of innovations. Firstly, this report is more substantive. This is mainly reflected in the more detailed explanation on the two supporting industries in the concept of "One Core Business, Two Supporting Industries". Under the complicated and changeable economic situation in 2008, Huaneng's businesses in energy, traffic and capital services industries maintained sound development, which provided a strong support to the Company's performance, and contributed to its leading position of performance in electricity power enterprises. This shows Huaneng's strong capacities of risk resistance and sustainable development. Secondly, this report is clearer. Guided by the thought of scientific development, Huaneng's concepts on safety, energy conservation and environmental protection, operation and management, as well as social responsibility are summarized and stated in a more systematic and accurate way, and are fully reflected in its routine management and operation. Thirdly, this report is more readable. From the President's address "Scientific Development of Huaneng" to the Events in main sections, the clear tenor of this report and its high correlation are easily obtained, thus strengthening the logicity and readability of the report. Fourthly, this report is friendlier. While maintaining the design tone of "Three-color Company", this report has a more beautiful design and more coordinated pictures and texts. In particular, a person-centered picture is used at the beginning of each section, which gives scenery pleasing to readers' eyes and enhances the humanization of the report.



Zhong Hongwu

Director of the CSR Research Center of Chinese Academy of Social Sciences

This report focuses on Huaneng's enterprise mission of "Three-color Company", and with safety, environmental protection, economy and society as its themes, comprehensively summarizes the practices of corporate social responsibility in various aspects. This is a report getting better and better. As the third Sustainability Report, this report is an outstanding enterprise sustainability report, with great improvements in its structure, logic, data, and expression, etc. This is a report with "Integration and Innovation", which organically integrates standards of the State-owned Assets Supervision and Administration Commission of the State Council, the United Nations Global Compact, and the Global Reporting Initiative, etc., and innovatively conducts benchmarking between the Ten Principles of the United Nations Global Compact and the Company's practices in corporate social responsibility to ensure the implementation of the Ten Principles of the United Nations Global Compact. This is a report associated with practice. This report presents the shining points of Huaneng sustainable development in the parts of Scientific Development of Huaneng in 2008 and Events, and uses Typical Cases to explain Huaneng's implementing social responsibility, and thus is closer to the actual situation.



Terminology

1. Ultra Supercritical Power Generation Technology

As the world's most advanced power generation technology, the ultra supercritical power generation technology refers to the high-tech environment-friendly methodology aiming to enhance thermal efficiency and reduce coal consumption through increasing boiler steam pressure (25 – 31MPa) and temperature (580°C – 610°C).

2. GreenGen

GreenGen refers to the program aiming to develop and promote the coal-based energy system that focuses on hydrogen production through gasification, combined cycle power generation with hydrogen turbines and fuel cells power generation, while capturing and storing CO₂, so as to greatly raise coal-fired power generation efficiency and to realize near-zero emission of pollutants and CO₂.

3. Clean Development Mechanism (CDM)

CDM is one of the three flexible mechanisms under the Kyoto Protocol, allowing industrialized countries to cooperate with developing countries in projects that reduce emissions and generate CERs (Certified Emission Reductions), by providing capital and technology, so as to fulfill their greenhouse gas reduction commitments.

4. Concentration Ratio

For water solution of finite concentration, the content of a certain substance is presumed to be S1, and the concentration of this substance becomes S2 after evaporation. The ratio of S2 to S1 is called concentration ratio of the water solution in the process of evaporation. In view of physical significance, concentration ratio is a physical quantity that reflects the liquid evaporation capacity of a certain water solution. For industrial recycled cooling water system, to increase concentration ratio can save water resources.

5. High Temperature Gas-cooled Reactor


High Temperature Gas-cooled Reactor is a kind of nuclear reactor that takes helium gas as cooling agent, with high exit temperature. High temperature gas-cooled reactor uses coated particles fuel, and takes graphite as moderator. The exit temperature of reactor center is from 850°C to 1,000°C, and even higher. The fuel is usually uranium dioxide with high concentration, and sometimes is uranium dioxide with low concentration. High temperature gas-cooled reactor has such advantages as high thermal efficiency (40-41%), high burn-up fraction (up to 9,000 MW day/ton uranium, and high conversion ratio (0.7-0.8).

6. Balanced Scorecard

Balanced Scorecard is a new Performance Assessment System proposed by Robert S. Kaplan, professor of Harvard Business School, and David P. Norton, founder and president of Renaissance Global Group. It is a kind of control system and method of integrated management, which combines the financial evaluation with the business valuation in non-financial aspects, and establishes performance evaluation indicators from aspects related to the key factors of success in enterprise operation.

7. “100-1,000-10,000” Campaign

The “100-1,000-10,000” Campaign refers to the project to construct 100 schools, build 100 rural clinics, renovate 100 natural villages, and establish 100 rural culture rooms; to train 1,000 rural teachers, provide financial aid for 1,000 junior and senior high school graduates to enter vocational technical schools, and 1,000 poverty-stricken students in middle schools and primary schools to complete their education; to resolve the problem of drinking water of 10,000 people, to train 10,000 rural labor force for employment transfer and support 100,000 people to participate in the national new rural cooperative medical service.



Feedback Questionnaire

Dear Readers,

This report is a Sustainability Report(2008) issued to the public by China Huaneng Group. We're looking forward to your advice and suggestions so that we can improve our reporting in the future. We're grateful if you answer the following questions and send this questionnaire back to us in one of the following ways.

Fax: +86-10-62291899

Mail to: No.40, Xueyuan Nanlu, Haidian Dist., Beijing (100082)

Your Personal Information

Name _____

Work Unit _____

Position _____

Tel _____

Fax _____

E-mail _____

Readers Feedback Questionnaire on this Sustainability Report

Multiple Choices (Please mark your choice with "√")	Yes	Average	No
1. Do you think this report reflects Huaneng's significant impacts on economy, environment and society?			
2. Do you think this report makes an accurate and complete analysis of the relations between Huaneng and its stakeholders?			
3. Do you think the information disclosed in this report is clear, accurate and complete?			
4. Do you think this report is convenient for reading with respect to contents and design?			

Open Question

1. In your opinion, which part of this report is most satisfactory?

2. What information that you need to know is not included in this report?

3. What's your advice on our future sustainability reports?

Thank you for your support and cooperation.

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